

Environmental and Social Due Diligence, Impact Assessment and Road Safety Audit for the Moldova TENT-T Road Network Rehabilitation Project, DTM 55768

Environmental and Social Impact Assessment

Date: 28.04.2026

1. Content

| | |
|---|----|
| 1. Content | 2 |
| Table of Figures | 6 |
| Table of Tables | 9 |
| 2. Project sheet | 13 |
| Abbreviations | 14 |
| Important Notice/Disclaimer | 15 |
| 3. Executive Summary | 16 |
| 4. Project Description | 18 |
| 4.1. Description of the Tranche 2 of the Project | 18 |
| 4.2. Layout of the different facilities | 30 |
| 4.2.1. Tranche 2 facilities | 30 |
| 4.2.2. Associated facilities | 31 |
| 4.2.3. Actual Approach for the construction of the roads | 32 |
| 4.2.4. Roles and Responsibilities | 34 |
| 4.2.5. Tender performance of construction works (International Acquisition) | 36 |
| 4.3. Detailed description of the Project | 38 |
| 4.3.1. Common design features | 38 |
| 4.3.2. Lot 1 - Airport I/C – Porumbrei | 38 |
| 4.3.3. Lot 2 - Porumbrei – Cimișlia | 40 |
| 4.3.4. Lot 3 – Cimișlia - Comrat | 41 |
| 4.3.5. Lot 4 - Giurgiuleşti Ring Road and Border Links | 42 |
| 4.3.6. Construction materials and standards | 45 |
| 4.4. Traffic flow and traffic forecasting | 49 |
| 4.5. Analysis of alternatives | 50 |
| 4.5.1. No-Project Scenario | 50 |
| 4.5.2. Improvement of existing corridor | 50 |
| 4.5.3. Other design and technical alternatives (preferred option) | 50 |
| 4.5.4. Summary of comparison | 51 |
| 4.5.5. Lot 4 alternatives | 52 |

| | | |
|--------|--|-----|
| 5. | Legal Requirements | 54 |
| 5.1. | Policy, legal and administrative context of the ESIA | 54 |
| 5.1.1. | National strategies | 54 |
| 5.1.2. | Regional and Local (District's) Development Strategies and Urban Planning Plans | 55 |
| 5.2. | Applicable IFI Environmental and Social Assessment procedures | 57 |
| 5.3. | National and international regulatory framework, standards and guidelines, treaties applicable ... | 59 |
| 5.3.1. | National legislation on environment/biodiversity | 59 |
| 5.3.2. | Specific legal acts on transport, urbanism, construction, and public administration | 60 |
| 5.3.3. | Specific legal acts on social aspect, health, and safety | 61 |
| 5.3.4. | Technical normative acts regarding the environment and construction | 62 |
| 5.3.5. | EU Directives | 63 |
| 5.3.6. | International treaties related to the environment | 63 |
| 5.4. | Approach to benchmarking | 64 |
| 6. | Baseline Conditions | 66 |
| 6.1. | Air emissions | 71 |
| 6.2. | Noise and vibration | 76 |
| 6.3. | Climatic factors and climate change | 78 |
| 6.4. | Geomorphology and geology | 81 |
| 6.5. | Soil | 87 |
| 6.6. | Water | 90 |
| 6.6.1. | Surface water | 90 |
| 6.6.2. | Groundwater | 94 |
| 6.7. | Biological and ecological resources | 97 |
| 6.7.1. | Emerald Sites and habitats | 99 |
| 6.7.2. | Natural Protected Areas (NPA) | 109 |
| 6.7.3. | Fauna | 114 |
| 6.7.4. | Flora and forest ecosystems | 126 |
| 6.7.5. | Field assessment and meetings | 130 |
| 6.8. | Socio-economic conditions | 136 |
| 6.8.1. | National, regional and local context | 136 |
| 6.8.2. | Regional Governance | 138 |

| | | |
|---------|--|-----|
| 6.8.3. | Population, demographics, migration trends, and employment | 140 |
| 6.8.4. | Economic activities and household income | 143 |
| 6.8.5. | Table Socio-economic conditions on Project area | 145 |
| 6.8.6. | Social Receptors identified over the Project Area (Lot 1-4)..... | 159 |
| 6.8.7. | Disadvantaged and vulnerable groups | 165 |
| 6.8.8. | Community health and safety | 166 |
| 6.8.9. | Road Safety and accident history | 170 |
| 6.8.10. | Occupational health and safety, Labour and Working Conditions..... | 175 |
| 6.8.11. | Gender and the role of women in society | 185 |
| 6.9. | Cultural heritage and archaeological sites | 187 |
| 6.10. | Land tenure and land acquisition | 195 |
| 6.10.1. | Land Tenure and Land Use | 201 |
| 6.10.2. | Permanent Land Acquisition..... | 205 |
| 6.10.3. | Temporary used land | 208 |
| 6.10.4. | Land expropriation phases under National Legislation | 209 |
| 6.10.5. | GRM during expropriation according to national Law | 212 |
| 6.11. | Landscape and visual aspects | 213 |
| 7. | Stakeholder Engagement | 214 |
| 7.1. | Information disclosure | 214 |
| 7.1.1. | Stakeholder Engagement (Scoping and ESIA engagement) | 214 |
| 7.1.2. | SEP and further engagement | 226 |
| 7.1.3. | ESIA disclosure..... | 227 |
| 7.2. | Stakeholders' engagement activities during project lifecycle..... | 229 |
| 8. | Potential Impacts | 230 |
| 8.1. | Impact assessment methodology..... | 232 |
| 8.2. | Physical environment | 233 |
| 8.2.1. | Air and Climate Change..... | 233 |
| 8.2.2. | Soil | 234 |
| 8.2.3. | Water resources..... | 236 |
| 8.2.4. | Noise and vibration | 238 |
| 8.2.5. | Waste | 243 |

| | | |
|--------------|---|-----|
| 8.2.6. | Landscape | 244 |
| 8.3. | Biodiversity | 244 |
| 8.4. | Socio-economic and health, safety and security risks and impacts..... | 247 |
| 8.4.1. | Land acquisition and economic displacement | 247 |
| 8.4.2. | Access and Traffic Restrictions..... | 250 |
| 8.4.3. | Community Health, Safety and Welfare..... | 254 |
| 8.4.4. | Occupational Health and Safety, Labour and working conditions | 265 |
| 8.4.5. | Economic Development, Employment and Local Value Creation | 274 |
| 8.4.6. | Historical and Cultural Heritage | 277 |
| 8.4.7. | Assessment matrix on potential socio-economic assessment | 280 |
| 8.5. | Cumulative Impacts..... | 282 |
| 8.6. | Key positive impacts of the Project | 286 |
| 9. | Management of Impacts and Issues..... | 288 |
| 9.1. | Air and climate change..... | 288 |
| 9.2. | Soil | 289 |
| 9.3. | Water | 291 |
| 9.4. | Noise and vibration | 292 |
| 9.5. | Waste | 298 |
| 9.6. | Biodiversity | 299 |
| 9.7. | Socio-economic..... | 303 |
| 10. | Monitoring and Supervision | 308 |
| Annexes..... | | 326 |

Table of Figures

| | |
|---|-----|
| Figure 4-1: Project Roads in the context of national road network | 19 |
| Figure 4-2: Tranche 2, M3 road divided in 4 lots | 21 |
| Figure 4-3: M3 road - Cimislia Bypass | 23 |
| Figure 4-4: M3 road - Comrat Bypass | 24 |
| Figure 4-5: M3 road – Vulcănești Bypass..... | 25 |
| Figure 4-6: M3 road – Slobozia Mare Bypass | 26 |
| Figure 4-7: Planned Parking Area near Giurgiulesti Bypass Road | 31 |
| Figure 4-8: Typical transverse sections | 39 |
| Figure 4-9: Typical Roadway Cross-Section and Structural Reinforcement Design | 39 |
| Figure 4-10: Illustrative photo of Lot 1 | 39 |
| Figure 4-11: Typical cross-section | 40 |
| Figure 4-12: General view of the Lot 2 road section | 41 |
| Figure 4-13: Typical cross-section, Lot 3..... | 41 |
| Figure 4-14: Illustrative photo of Lot 3 | 41 |
| Figure 4-15: Position of project road, Lot 4 (Giurgiulești Bypass)..... | 43 |
| Figure 4-16: Position of project roads, Lot 4 (M3 and M3.1)..... | 43 |
| Figure 4-17: Typical cross-section on section M3 km211+980 - km213+690 and M3.1 | 44 |
| Figure 4-18: Typical transverse profile on the section of the bypass road of Giurgiulesti village..... | 45 |
| Figure 4-19: Illustrative photo of Lot 4 | 45 |
| Figure 4-20: Location of the planned borrow pit..... | 46 |
| Figure 4-21: Land cover of the planned borrow pit | 47 |
| Figure 6-1: Project sites and area of influence | 67 |
| Figure 6-2: Historical Air Quality Index. Air quality monitoring station: Sarmizegetusa street, Chișinău, Moldova, PM10 | 72 |
| Figure 6-3: Historical Air Quality Index. Air quality monitoring station: Sarmizegetusa street, Chișinău, Moldova, PM2.5, | 73 |
| Figure 6-4: Location of environmental monitoring points | 74 |
| Figure 6-5: Average air temperature and Precipitation..... | 79 |
| Figure 6-6: Lot 1 (Chișinău-Porumbrei)..... | 81 |
| Figure 6-7: Lot 2 (Porumbrei - Cimișlia) | 82 |
| Figure 6-8: Lot 3 (Cimișlia-Comrat) | 82 |
| Figure 6-9: Lot 4 (M3, M3.1)..... | 83 |
| Figure 6-10: Lot 4 (Giurgiulești Bypass)..... | 84 |
| Figure 6-11: Geological zones identified in the Project area | 85 |
| Figure 6-12: Geological zones identified in the Project area..... | 86 |
| Figure 6-13: Pedogeographical Regionalization in the Project Area | 88 |
| Figure 6-14: Hydrological network in the Project Area | 93 |
| Figure 6-15: Images from Natural Forest Reserve Carbuna (Photo authors, October, 2025) | 110 |

| | |
|---|-----|
| Figure 6-16: Images from Natural Forest Reserve Molesti Razeni (Photo authors, October, 2025) | 111 |
| Figure 6-17: Images from the monument of nature Outcrops of Costesti | 111 |
| Figure 6-18: Images from the Nature reserves of medicinal plants "Bugeac" Nature reserves of medicinal, plants "Bugeac" (Photo authors, October 2025)..... | 112 |
| Figure 6-19: Images from the Scientific (natural) reserve „Prutul de Jos” ("Lower Prut") | 112 |
| Figure 6-20: Investigated area..... | 113 |
| Figure 6-21: Bird migration routes | 121 |
| Figure 6-22: Invertebrate species with the area near the M3 Road | 123 |
| Figure 6-23: Plan of the bridge 3+395 (13+395 , which can be used by wild animals..... | 124 |
| Figure 6-24: Existing bridge (km 5+767), which can be used by animals | 125 |
| Figure 6-25: Plan of the bridge 5+767, which can be used by wild animals | 125 |
| Figure 6-26: Existing bridge (km 22+336), which can be used by animals | 126 |
| Figure 6-27: Secondary Species in Forests area | 129 |
| Figure 6-28. Images from the field evaluation | 131 |
| Figure 6-29: Images from forest "Molesti-Rezeni" and "Carbuna" | 132 |
| Figure 6-30: Images of modified habitats in the area of road bridges, Lot 1 | 132 |
| Figure 6-31: Images of typical vegetation in the Lot 2 | 133 |
| Figure 6-32: Images of typical vegetation communities in the Lot 2 | 134 |
| Figure 6-33: Images on the migration of birds in Lot 4..... | 135 |
| Figure 6-34: Images from wildlife investigations in the border area of the Republic of Moldova on the Prut River (Author: Biosphere Reserves "Prutul de Jos") | 135 |
| Figure 6-35: Images from field meetings with forestry and scientific specialists..... | 136 |
| Figure 6-36: Organisational units in Moldova | 139 |
| Figure 6-37: Overview of the lots..... | 145 |
| Figure 6-38: Corine Land Cover, 2023 | 147 |
| Figure 6-39: <i>Giurgiulești Bypass</i> | 148 |
| Figure 6-40: Classes of death | 168 |
| Figure 6-41: General Inspectorate of Police. orange – accidents, yellow – deaths, grey-injuries | 170 |
| Figure 6-42: Main causes of road accidents | 171 |
| Figure 6-43: Labor underutilization by sex | 186 |
| Figure 6-44: Share of women and men in decision-making positions in 2024..... | 187 |
| Figure 6-45: Profile of the Valul lui Traian de Sus trench | 193 |
| Figure 7-1:Information boards | 216 |
| Figure 7-2: Fotos of business meetings | 218 |
| Figure 7-3: On-site visits of the different Lots..... | 219 |
| Figure 7-4: Table: Meetings with the NRA | 219 |
| Figure 7-5: Examples of public announcements and information disclosure | 221 |
| Figure 7-6: Pictures from the community meetings and FGDs | 221 |
| Figure 7-7: Example of filled-in questionnaires | 222 |

| | |
|---|-----|
| Figure 8-1: Sources of atmospheric air pollution | 233 |
| Figure 8-2: Sources of soil and subsoil pollution | 235 |
| Figure 8-3: Land acquisition and economic displacement | 247 |
| Figure 8-4: Access and Traffic Restrictions | 251 |
| Figure 8-5: Community Health, Safety and Welfare | 254 |
| Figure 8-6: Occupational Health and Safety, Labour and working conditions | 265 |
| Figure 8-7: Economic Development, Employment and Value Creation | 274 |
| Figure 9-1: Noise modelling during construction phase | 295 |
| Figure 9-2: Noise modelling during operation phase | 298 |

Table of Tables

| | |
|--|-----|
| Table4-1: Location of the Lots in the Tranche 2 | 20 |
| Table4-2: Main Roads Intersecting the M3 (Chisinau – Comrat – Giurgiulești) project road | 27 |
| Table4-3: Technical parameters of the existing road | 28 |
| Table4-4: Pavement conditions | 28 |
| Table4-5: Information about the main artificial structures (bridge) | 29 |
| Table4-6: Information about the bridge location and current technical status | 30 |
| Table4-7: Technical requirements | 37 |
| Table4-8: Overview of main characteristics of Project Roads (Lot 4)..... | 43 |
| Table4-9: Data sources..... | 49 |
| Table4-10: Summary of design traffic volumes | 49 |
| Table4-11: Project and alternative options | 51 |
| Table4-12: Estimated quantity of main materials..... | 51 |
| Table4-13: Technical and economic indicators | 51 |
| Table4-14: Overview of advantages of the Diamond Grinding technology | 51 |
| Table4-15: Overview of the comparison of the different design and technical possibilities | 51 |
| Table 4-16: Overview of main technical characteristics | 53 |
| Table 4-17: Analysis of the alternatives of the road structure for the Giurgiulești Bypass Project | 54 |
| Table 5-1: PRs to be met by the Client..... | 57 |
| Table 5-2: Overview of the EIA Status of the different lots | 60 |
| Table 5-3: Overview of the normative acts | 62 |
| Table 6-1: Area of influence of the Project..... | 66 |
| Table 6-2: Polluting substances emitted in atmospheric air by road transport, thousands of tons | 71 |
| Table 6-3: Overview of the results of air samples; Source: Cahul Public Health Center | 75 |
| Table 6-4: Residential area near the Project road, 100m | 76 |
| Table 6-5: Permissible limit of equivalent noise level | 76 |
| Table 6-6: Compliance of Measured Noise Levels with Admissible Limits according to NCM E.04.02:2014 .. | 78 |
| Table 6-7: Climatic Hazards, Risks, and Vulnerabilities | 80 |
| Table 6-8: Geological zones identified in the Project area | 84 |
| Table 6-9: Qualitative Characteristics of Agricultural Land in the Project area, January 2025 | 89 |
| Table 6-10: Basic hydrological characteristics of selected rivers | 93 |
| Table 6-11: Overview of water sample results | 94 |
| Table 6-12: Drainage structure and project solutions | 97 |
| Table 6-13: Overview of sensitive zones and areas of special interest..... | 98 |
| Table6-14: Road crosses the territory of four sites of the Emerald Network | 100 |
| Table6-15: description of the Emerald Site „Pădurea Molești-Răzeni” (Forest Molești-Răzeni) MD00000026 | 101 |
| Table6-16: The description of the Site Emerald Site „Carbuna” MD00000022 | 101 |
| Table 6-17: Species listed in Resolution 6 and sites („Carbuna” and „Molesti -Rezeni”) evaluation for them | |

| | |
|--|-----|
| | 103 |
| Table6-18: description of the Emerald Site: “Stepa Bugeacului” (Bugeac Steppe) MD0000016 | 103 |
| Table 6-19: Species listed in Resolution 6 and sites (Stepa Bugeacului) evaluation for them | 105 |
| Table6-20: description of the Emerald Site “Lacurile Prutului de Jos” (The Lower Prut Lakes) MD0000012 .. | 105 |
| Table6-21: Established types of habitat..... | 106 |
| Table6-22: Species listed in Resolution 6 and sites “Lacurile Prutului de Jos” evaluation for them | 107 |
| Table6-23: Description of the most important natural protected areas (NPA) in the area of M3 Road | 110 |
| Table6-24: Description of the mammal’s species with protection status and the areal near the M3 Road | 116 |
| Table6-25: Bat species with the areal near the M3 Road | 117 |
| Table6-26: Amphibia and Reptilia species with the areal near the M3 Road | 118 |
| Table6-27: Endangered bird species with the areal near the M3 Road | 120 |
| Table6-28: Fish species with the areal near the M3 Road | 123 |
| Table 6-29: Main Representative Species in Forests in the area of Lot 1 M3 Road | 128 |
| Table6-30: Approval of transfer of land | 129 |
| Table6-31: Information regarding deforestation of trees | 130 |
| Table6-32: Information regarding deforestation of trees | 132 |
| Table 6-33: Main bird species | 133 |
| Table 6-34: Main bird species | 134 |
| Table6-35: Institutional responsibilities relevant to the Project..... | 138 |
| Table6-36: Main localities in Lot1 | 152 |
| Table6-37: Main localities Lot 2 | 155 |
| Table6-38: Main localities Lot 3 | 156 |
| Table6-39: Main localities Lot 4 | 158 |
| Table6-40: Social Receptors identified over the Project Area (Lot 1-4) | 162 |
| Table6-41: Preliminary evaluation of existing and project design accesses for Lot 1 | 165 |
| Table 6-42: Overview of the identified vulnerable groups and engagement measures | 166 |
| Table6-43: Healthcare provision in the Project Area: There are no sanitary zones within the Aol of the Project. | 170 |
| Table6-44: Ialoveni Police Inspectorate report 2021-2025, M3 road..... | 173 |
| Table6-45: Cimişlia Police Inspectorate report 2021-2025, M3 road | 174 |
| Table 6-46: Gap analyse of PR4/ESR4 with national legislation | 180 |
| Table6-47: Comparison PR2 and national legislation | 183 |
| Table6-48: Overview of fire fighters locations..... | 184 |
| Table6-49: Public security providers along the Project Area | 185 |
| Table6-50: Historical Archaeological sites in the Project area , | 191 |
| Table6-51: List of architectural and historical monuments in the Project area , Source: Register of monuments of the Republic of Moldova protected by the state. | 194 |
| Table6-52: Gap Analysis (table extracted from LARF – Land Acquisition and Resettlement Framework) | 201 |
| Table6-53: Land Tenure in Moldova | 202 |

| | |
|--|-----|
| Table6-54: Land use description and relevance to ESIA/LARF | 204 |
| Table6-55: Public domain/Private domain | 205 |
| Table6-56: Overview of planning certificates | 206 |
| Table6-57: Component 1: Bypass Road of Giurgiulești village, Cahul district | 207 |
| Table6-58: Allocated land necessary for the rehabilitation of the road sectors M3 Chisinau - Comrat Giurgiulesti - border with Romania PC 2119+20.00 - PC 2136+90.00 and M3.1 Giurgiulesti - border with Ukraine PC 00+00.00 - PC 06+80.00 | 208 |
| Table6-59: Overview of expropriation stages | 210 |
| Table6-60: <i>Expropriation level per lots linked to Table 4-48</i> | 212 |
| Table 7-1: Overview of published announcement | 216 |
| Table 7-2: Raised concerns by local representatives and residents | 218 |
| Table 7-3: Identified key issues | 220 |
| Table 7-4: Overview of the engagement activities | 225 |
| Table 7-5: Key concerns of the communities | 225 |
| Table 7-6: Overview of disclosure documents | 227 |
| Table 7-7: Indicative ESIA Disclosure Package | 227 |
| Table 7-8: indicative disclosure plan | 229 |
| Table 7-9: Overview engagement methods | 230 |
| Table8-1: Semi-quantitative assessment grid | 233 |
| Table8-2: Assessment matrix of potential impacts on air quality | 234 |
| Table8-3: Assessment matrix of potential impacts on soil/subsoil | 236 |
| Table8-4: Assessment matrix of potential impacts on water | 237 |
| Table 8-5: Critical thresholds | 241 |
| Table 8-6: Exposure of Species of Conservation Interest to Noise Generated During the Construction and Operation Phases of the Project | 241 |
| Table 8-7: Recommended locations for the deployment of mobile noise-absorbing panels | 242 |
| Table 8-8: Placement of Noise-Absorbing Panels for the Operation Phase of the Project | 243 |
| Table8-9: Assessment matrix of potential impacts on noise and vibration | 243 |
| Table8-10: Assessment matrix of potential impacts on biodiversity | 245 |
| Table 8-11: Assessment matrix of land acquisition | 250 |
| Table 8-12: Assessment matrix access and traffic restrictions | 254 |
| Table 8-13: Assessment matrix health, safety and welfare | 264 |
| Table 8-14: Assessment matrix occupational health and safety, labour | 274 |
| Table 8-15: Historical and Cultural Heritage | 277 |
| Table 8-16: Assessment matrix historical and cultural heritage | 280 |
| Table8-17: Assessment matrix on potential socio-economic impacts | 281 |
| Table8-18: Cumulative Impacts by Lot | 286 |
| Table9-1: Requirements for how to mitigate the impact for species and habitats in the Emerald Sites, ANPS and forest ecosystems | 302 |

| | |
|---|-----|
| Table 9-2: Impact/mitigation measures land acquisition and economic displacement..... | 303 |
| Table 9-3: Impact/mitigation measures access and traffic restrictions | 303 |
| Table 9-4: Impact/mitigation measures community health, safety and welfare | 303 |
| Table 9-5: Impact/mitigation measures occupational health and safety, labour and working conditions | 305 |
| Table 9-6: Impact/mitigation measures economic development | 306 |
| Table9-7: Impact/mitigation measures historical and cultural heritage..... | 306 |
| Table10-1: Environmental and Social Monitoring Plan..... | 325 |

2. Project sheet

| | | | |
|------------------------|--|--|-----------------------------|
| Project number | P12002-107 | | |
| Project title | Environmental and Social Due Diligence, Impact Assessment and Road Safety Audit for the Moldova TENT-T Road Network Rehabilitation Project | | |
| Allocation/budget line | | | |
| Awarded on | 25.06.2025 | | |
| | Revision: | Editor: | Date: |
| | V0.1 – Outline of Report prepared | | 01.09.2025 |
| | V1.0 - Draft delivered to Client | MC Mobility | 21.11.2025 |
| | V1.1 – updated version | MC Mobility | 01.02.2026 |
| | V1.2 – updated disclosure plan | MC Mobility | 02.02.2026 |
| | V1.3 – updated with basic data collection and results of water samples | MC Mobility | 23.02.2026 |
| | V1.4 -updated version | MC Mobility | 26.02.2026 |
| | V1.5 – updated version | MC Mobility | 03.03.2026 |
| | V1.6 - updated with laboratory results | MC Mobility | 24.03.2026 |
| | V1.7 – updated based on comments | MC Mobility | 09.04.2026 |
| | V Final Draft | MC Mobility | 27.04.2026 |
| Quality Check: | | | |
| | | | |
| | Client | Contractor | Implementing partner |
| Name: | European Bank for Reconstruction and Development | MC Mobility Consultants GmbH | |
| Address: | Five Bank Street London, E14 4BG United Kingdom | Zwölfergasse 8/3/28, VIENNA, 1150, Austria | |
| Tel. number: | | +4318923600 | |
| Contact person: | Dadabaev, Jamol | Holger Eiletz | |
| Email address: | DadabaeJ@ebrd.com | holger.eiletz@vienna-mc.com | |
| Signatures: | | | |
| | | | |
| Name of the Experts: | Egidijus Skrodenis, Project Manager Sabine Stumpf-Langer, Project Manager Tatiana Illescu, Environmental Specialist Marina Grosu, Health and Safety Specialist Ala Rotaru. Biodiversity Specialist | | |

Abbreviations

| Abbreviation | Description |
|----------------|---|
| ANTA | National Road Transport Agency |
| AADT | Average Annual Daily Traffic |
| C-ESMP | Construction Environmental and Social Management Plan |
| CP | Code of Practice |
| DD | Detailed Design |
| E&S | Environmental and Social |
| EBRD | European Bank for Reconstruction and Development |
| EA | Environmental Agency |
| EPI | Environmental Protection Inspectorate |
| ESDD | Environmental and Social Due Diligence |
| ESA | Environmental and Social Assessment |
| ESAP | Environmental and Social Action Plan |
| ESP | Environmental and Social Policy |
| ESIA | Environmental and Social Impact Assessment |
| EU | European Union |
| EUR | Euro |
| GD | Government Decision |
| GDP | Gross Domestic Product |
| | Grievance Redress Mechanism |
| IUCN | International Union for Conservation of Nature |
| INSP | National Inspectorate for Public Security |
| LPA | Local Public Authority |
| NCM | Normative in Constructions from Moldova |
| NGO | Non-Governmental Organization |
| NPA | Natural Protected Areas |
| NRA | National Road Administration J.S.C. |
| NTS | Non-technical Summary |
| OHS | Occupational Health and Safety |
| RAP | Resettlement Action Plan |
| RDA | Regional Development Agency |
| RM | Republic of Moldova |
| RoW | Right of Way |
| RPF | Resettlement Policy Framework |
| RSA | Road Safety Audit |
| PR | Performance Requirement |
| PAP | Project-Affected People |
| SE | Supervision Engineer |
| SEP | Stakeholder Engagement Plan |
| TEN-T | Trans-European Transport Network |
| TOR | Terms of Reference |

Important Notice/Disclaimer

MC Mobility Consultants GmbH („**Consultant**“), is acting for the Moldova State Road Administration (the “**Client**”) on the terms set out in the “Environmental and Social Due Diligence, Impact Assessment and Road Safety Audit for the Moldova TENT-T Road Network Rehabilitation Project” (the “**Project**”), and has no responsibility to anyone other than the Client for providing advice in relation to the Project.

Consultant has prepared this document for the needs of the Client, the European Bank for Reconstruction and Development and the Moldova State Road Administration, and to present agreed organization and management structure and associated matters. No other party is entitled to rely on this document for any purpose whatsoever and Consultant accepts no responsibility or liability to any party other than the Client in respect of this document and/or any of its contents.

This document was prepared based on information provided by the Client. All information received from the Client and contained in this document are accepted without any audits and verification as data that fully and accurately reflect the organisation and operations of the Client in all relevant segments of the Project.

Whilst the Consultant is responsible to the Client for performing its work with reasonable skill and care, the contents of this document rely on the information provided to the Consultant. Consultant has neither independently verified the content of the information provided, nor audited or otherwise verified the information provided. Consequently, any errors or omissions in the data provided could have a material impact on the deliverables. The Consultant will not be responsible for the reliability of the content of this document and report, or oral advice, if it is based on information obtained from the Client that is inaccurate or incomplete.

All copyright and other proprietary rights in this document remain the property of the Consultant and any rights not expressly granted in these terms or in the Contract are reserved. The possession of this document or a copy thereof by a third party does not imply the right to publish, distribute or use it. If a third party uses the information contained in this document, the Consultant and its employees do not have any responsibility for such use.

To the fullest extent possible, both Consultant and the Client disclaim any liability whatsoever arising out of or connected with the use (or non-use) of this document and its contents, including any business action or business decision taken because of such use (or non-use). No third-party user acquires any right because of such access that it would not otherwise have had, and Consultant has not assumed any duties or obligations that it would not otherwise have had.

This document and its contents are confidential and may not be reproduced, redistributed, or passed on directly or indirectly, to any other person in whole or in part without the prior written consent of the Consultant.

3. Executive Summary

This Environmental and Social Impact Assessment (ESIA) has been prepared for Tranche 2 of the Moldova TEN-T Road Network Rehabilitation Project (M3 Road, Chişinău – Comrat – Giurgiuleşti – Romanian border), financed by the European Bank for Reconstruction and Development (EBRD).

The ESIA identifies and assesses potential environmental and social (E&S) impacts, proposes mitigation and monitoring measures, and defines institutional responsibilities in line with EBRD Performance Requirements (PRs) and national legislation.

Project rationale and objectives.

The M3 corridor is a strategic north–south route linking the capital with the southern border and the EU TEN-T Core Network. Rehabilitation will improve road safety, travel efficiency, and regional connectivity, supporting trade and economic integration with neighbouring countries.

Project scope: Tranche 2 totals 70.9 km (Category A) and includes four lots:

1. Airport I/C – Porumbrei (34.4 km)
2. Porumbrei – Cimişlia (19 km, widening from two to four lanes)
3. Cimişlia – Comrat (12 km)
4. Giurgiuleşti Ring Road (5.5 km).

Summary of impacts

The Project will have moderate temporary impacts during construction, mainly related to dust, noise, soil disturbance, traffic disruption, and worker safety. Long-term operational impacts are low, while residual positive effects are substantial due to enhanced safety, accessibility, and local economic opportunities.

- **Air quality:** Short-term dust and exhaust emissions; long-term improvements from smoother traffic flow;
- **Soil:** Localised topsoil loss and erosion risk during construction;
- **Water:** Potential contamination from spills and wastewater; mitigated through drainage and spill control systems;
- **Noise and vibration:** Moderate to high during construction; low after installation of noise barriers and road surfacing;
- **Biodiversity:** Limited habitat disturbance near project sites; offset by replanting and erosion control;
- **Socio-economic:** Temporary access restrictions and safety risks during works; long-term improvement in mobility, trade, and safety.

Mitigation measures

Mitigation follows the mitigation hierarchy (avoid, minimize, restore, offset) and will be implemented through the Contractor's Environmental and Social Management Plan (CESMP) and the Environmental and Social Action Plan (ESAP).

Key measures include:

- Dust suppression (watering, covering trucks, speed limits);
- Noise control (equipment maintenance, restricted working hours, temporary barriers near villages and schools);
- Proper waste segregation and disposal, spill containment, and sanitary facilities in worker camps;
- Soil protection and progressive rehabilitation of disturbed areas;

- Installation of sediment traps and oil separators to protect watercourses;
- Traffic management plans and signage to protect road users and pedestrians;
- Emergency response, fire safety, and first-aid provisions;
- Worker health and safety training and personal protective equipment (PPE);
- Land acquisition and compensation procedures consistent with EBRD PR5;
- Community health and safety measures including awareness campaigns and grievance mechanism;
- Re-vegetation of slopes, tree planting, and control of invasive species near construction areas.

Residual impacts after mitigation are expected to remain low to moderate and manageable.

Positive effects

The Project will generate significant environmental, social and economic co-benefits, including:

- **Enhanced connectivity:** Reduced travel time, improved freight efficiency, and regional integration with EU markets;
- **Safety improvements:** Upgraded intersections, signage, barriers, lighting, and pedestrian crossings.
- **Health and environmental benefits:** Reduced dust and noise exposure, lower accident rates, and improved drainage reducing flood risks;
- **Employment and local economy:** Direct jobs during construction, indirect benefits for local suppliers, and increased regional competitiveness;
- **Social inclusion:** Easier access to schools, hospitals, and markets for rural and vulnerable populations, particularly women and elderly residents;
- **Tourism and business growth:** Better access to southern cultural and border areas, stimulating small enterprises and hospitality services.

Implementation and monitoring.

Environmental and social performance will be monitored throughout design, construction, and operation by the National Road Administration (NRA) and Supervision Engineer, with periodic reporting to the EBRD.

Monitoring and supervision will include:

- Regular inspections of construction camps, borrow pits, and storage sites;
- Review of waste, water, and fuel management records;
- Noise, air, and vibration monitoring by accredited laboratories;
- Stakeholder consultations and community grievance follow-up;
- Audits of health, safety, and labour conditions;
- Verification of replanting and habitat restoration works.

The ESAP outlines institutional responsibilities, capacity-building needs, and performance indicators for continuous improvement of the Client's EHS and social management system.

A **Non-Technical Summary (NTS)** in English and Romanian accompanies this ESIA for public disclosure and stakeholder engagement.

4. Project Description

4.1. Description of the Tranche 2 of the Project

The Project concerns the rehabilitation and upgrading of the M3 Road Corridor (Chişinău – Cimişlia – Comrat – Giurgiuleşti), including selected connecting sections to the Romanian and Ukrainian borders. It forms part of the Trans-European Transport Network (TEN-T) and implements the priorities of the National Mobility Strategy 2030, which aim to strengthen national and cross-border connectivity, improve road safety, and enhance trade links between Moldova and the European Union.

The M3 corridor provides the principal north–south axis of the national road network, linking the capital with key industrial and agricultural regions and the international port of Giurgiuleşti. The road serves both domestic and international freight flows to Romania and Ukraine, making it a strategic component of Moldova’s transport infrastructure.

Tranche 2 covers 70.9 km of the M3 Road (Chişinău – Comrat – Giurgiuleşti – Romanian border), crossing the central and southern regions of the Republic of Moldova within Chişinău Municipality and the districts of Ialoveni, Cimişlia, and Cahul. The corridor forms the shortest route between the capital city of Chişinău and the southern border at Giurgiuleşti, and is an integral section of the European road E577 (Poltava – Kirovograd – Chişinău – Giurgiuleşti – Galaţi – Slobozia), linking the TEN-T Corridors IV and IX.

The alignment traverses predominantly agricultural and semi-rural landscapes, with compact settlements located close to the existing right-of-way and small forest and steppe fragments in between. Ecologically, the corridor passes near four Emerald Network sites – “Molesti-Rezeni”, “Carbuna”, “Bugeac Steppe” and “Prutul de Jos Lakes. These environmental features, together with the region’s low-density settlement pattern and agricultural economy, shape the project’s interaction with its surroundings and are further detailed in Section 4.7 (Biological and Ecological Resources).

The following subsections outline the technical configuration and layout of the M3 Road rehabilitation works under Tranche 2. They describe the main civil-engineering elements for each lot - roadbed structure, drainage, bridges, and junctions - and indicate where construction activities could generate environmental or social pressures such as noise, dust, waste, or temporary access restrictions. This overview provides the technical foundation for the impact and mitigation analysis developed in the subsequent chapters.

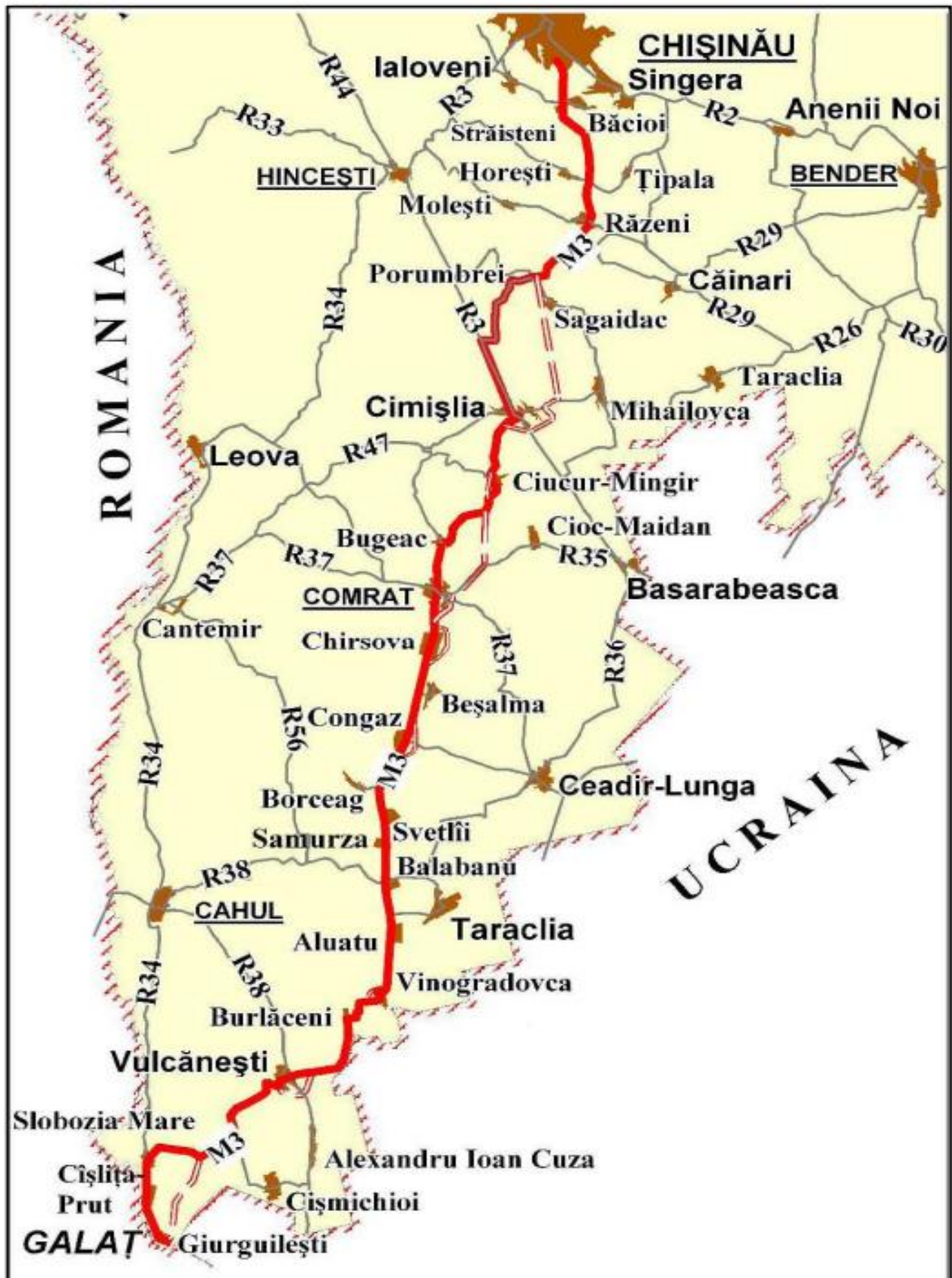


Figure 4-1: Project Roads in the context of national road network

Source: NRA <https://harta.andsa.md/>

Tranche 2 of the contract is divided into four Lots:

- Lot 1 (Airport I/C – Porumbrei, L = 34.4 km): Rehabilitation of the existing M3 road, km 10+000 – km 44+350, with 4 traffic lanes.
- Lot 2 (Porumbrei – Cimișlia, L = 19 km): Widening of the existing 19 km road from 2 to 4 lanes (Category A). The section of the M3 road between km 44+420 and km 63+430 was constructed as a two-lane road in 2022.
- Lot 3 (Cimișlia – Comrat, L = 12 km): Rehabilitation of the existing M3 road, km 70+350 – km 82+430, with 2 traffic lanes.
- Lot 4 (Giurgiulești Ring Road, L = 6.2 km): Rehabilitation of the M3 road (km 211.98 – km 213.69) and the M3.1 road (km 0.0 – km 0.65), as well as construction of a new 3.86 km bypass road around Giurgiulești village.

| Lot | Length, km | Coordinate | |
|--|------------|--------------------------------|--------------------------------|
| Lot 1 (Airport I/C – Porumbrei) | 34.4 | 46°57'1.36"N 28°52'0.31"E | 46°41'45.52"N 28°49'11.07"E |
| Lot 2 (Porumbrei – Cimișlia) | 19.0 | 46°41'45.52"N 28°49'11.07"E | 46°32'37.10"N 28°46'20.51"E |
| Lot 3 (Cimișlia – Comrat) | 12.0 | 46°30'4.07"N 28°45'39.45"E | 46°24'11.28"N 28°44'21.31"E |
| Lot 4 (Giurgiulești Bypass) | 3.9 | 45°31'41.56"N 28°12'50.33"E | 45°30'23.28"N 28°10'34.45"E |
| Lot 4 M3 road km 211.98 – km 213.69 | 1.7 | 45°28'42.88"N 28°12'59.09"E | 45°28'19.04"N 28°11'50.40"E |

Table4-1: Location of the Lots in the Tranche 2

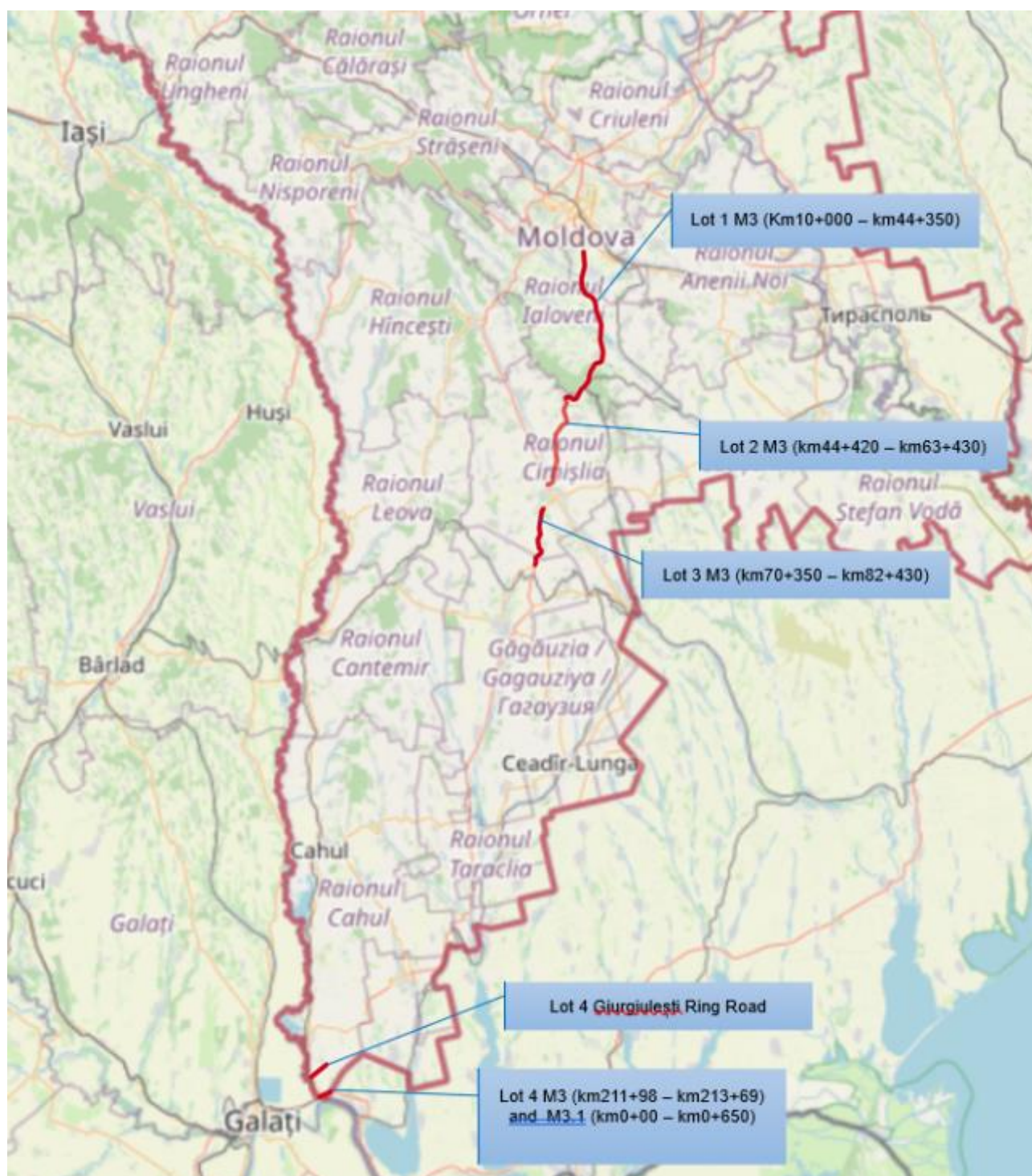


Figure 4-2: Tranche 2, M3 road divided in 4 lots

The total length of the M3 Chișinău–Comrat–Giurgiulești road is 213.7 km. After the implementation of all projects planned by the National Road Administration, the M3 road will pass through only five localities — Aluatu, Svetlîi, Congaz, Chirsova, and Ciucur-Mingir — while the remaining settlements will be bypassed.

Other M3 road sections currently under implementation include:

- Cimișlia Bypass Road, with a total length of 7.2 km, included in the “Moldova Roads III” project, is presently under preparation of the design documentation, Figure 4-3: M3 road - Cimislia Bypass

- The project is financed with the support of the European Investment Bank (EIB), and the deadline for the use of project funds has been extended until December 2028.
- Comrat Bypass Road (the capital of Gagauzia), with a total length of 18.3 km, was completed in September 2022, financed through a loan granted to the Government of the Republic of Moldova by the European Investment Bank (EIB), Figure 4-4: **M3 road - Comrat Bypass**
- Vulcănești Bypass Road, 8.6 km in length, has been under construction since September 2023, Figure 4-5: **M3 road – Vulcănești Bypass**
- The project is implemented with the support of the European Bank for Reconstruction and Development (EBRD), and the completion of works is planned for February 2026. The road sector has been open to road traffic since December 2025¹.
- Slobozia Mare Bypass Road, with a total length of 16.6 km, is also under construction and is expected to be completed in 2026, Figure 4-6: **M3 road – Slobozia Mare Bypass**
- The bypass will avoid the crossing of the localities Slobozia Mare and Cîșlița-Prut. The project is financed by the state budget of the Republic of Moldova, with support from the EBRD.

¹ <https://www.andsa.md/comunicate-de-presa/de-la-trafic-greu-prin-oras-la-un-drum-nou-modern-construit-de-la-zero-ocolirea-vulcanesti-deschisa-circulatiei/>



Figure 4-3: M3 road - Cimislia Bypass



LEGEND:

- M3 Comrat Bypass
- M Express road
- R Republican road
- G Regional road
- G Regional road

Figure 4-4: M3 road - Comrat Bypass



Figure 4-5: M3 road – Vulcănești Bypass



Figure 4-6: M3 road – Slobozia Mare Bypass

The project sections of the M3 road pass through the administrative boundaries of the following localities: Chișinău, Băcioi, Străisteni, Horești, Răzeni, Sagaidacul Nou, Porumbrei, Cimișlia, Ciucur-Mingir, Cîșlița-Prut, Giurgiulești.

It should be noted that in the localities of Băcioi, Horești, Sagaidacul Nou, Porumbrei and Cimișlia, the road passes in close proximity to residential areas, while in Străisteni, Răzeni, Ciucur-Mingir and Giurgelești it runs directly through residential zones. This has a negative impact on residents' comfort, road safety, and the environmental situation in these regions.

This Project is classified as Category A under the EBRD environmental and social policy. It is likely to generate potentially significant environmental and social impacts, including direct, indirect and cumulative effects, some of which may not be fully defined at this stage of project preparation. Accordingly, it requires a comprehensive and participatory Environmental and Social Impact Assessment (ESIA) consistent with the EBRD Performance Requirements.

A feasibility study for the rehabilitation and extension of the M3 Road Chişinău – Giurgiuleşti / Romanian Border was completed in 2009. The European Commission Delegation in the Republic of Moldova appointed Kocks Consult GmbH (Germany) as the lead firm, in association with Universinş SRL (Republic of Moldova), as Consultant, under Contract “EuropeAid/125919/C/SER/MD”. The study assessed road condition, traffic forecasts, economic viability, and preliminary design options. Its guiding principle was to maximize the use of the existing road by rehabilitating it to comply with modern geometric and technical standards. New road construction was considered only where rehabilitation alone would not provide adequate operational and safety benefits, where could not sufficiently mitigate adverse environmental or social effects.

The construction alternative for the Giurgiuleşti village bypass was later confirmed through a 2024 feasibility study, which evaluated several route options, their technical and economic feasibility, and related environmental and social impacts to identify the optimal alignment.

The M3 Chişinău–Giurgiuleşti road (Tranche 2) consists of four distinct sections (Lots 1–4) with a total length of approximately 71 km, each requiring varying degrees of rehabilitation, upgrading, or widening to meet current and future traffic demands.

The table below lists the main national (republican "R" and regional "G") roads that intersect with the **M3** road (Chişinău – Comrat – Giurgiuleşti) in the Republic of Moldova. These intersections represent the key access and distribution points for traffic to/from the southern part of the country.

| No. | Intersected Road | Name of road | Intersection Point, km |
|-----|------------------|---|------------------------|
| 1 | G71 | Ialoveni–Băcioi–Sîngera–R2 | 13.99 |
| 2 | G105 | R3–Costeşti–Țipala–G106 | 26.39 |
| 3 | G104 | R3–Buţeni–Moleşti–Răzeni–M3 | 31.14 |
| 4 | G110 | Gâsca–Zolotievca–Pervomaisc–Gangura–Răzeni–M3 | 32.36 |
| 5 | G122 | M3–Sagaidacul Nou–Satul Nou–Mihailovca–R26 | 41.70 |
| 6 | G122.1 | M3–Sagaidacul Nou–Satul Nou–Mihailovca–R26 | 45.38 |
| 7 | G123 | R3–Gura Galbenei–Lipoveni–Porumbrei | 45.84 |
| 8 | R3 | Chişinău–Hînceşti–Cimişlia–Basarabeasca | 63.24 |
| 9 | R28 | Răscăieţii Noi–Hlinea | 82.75 |
| 10 | R23 | Criuleni–Brăneşti–Ivanča–M2 | 91.06 |
| 11 | R29 | Bender–Căinari–Răzeni | 97.36 |
| 12 | R34 | Hînceşti–Leova–Cahul–Slobozia Mare | Giurgiuleşti Bypass |
| 13 | R34.2 | Cahul–border with Romania | Giurgiuleşti Bypass |

Table4-2: Main Roads Intersecting the M3 (Chisinau – Comrat – Giurgiuleşti) project road

On the section of the road up to km 44+350, there are no at-grade intersections. However, there are several unauthorized access points used to reach agricultural lands, which in turn increases the risk of accidents and traffic incidents with fatal outcomes.

Along its length, the M3 road includes sections of different technical categories ² with various pavement types. The information relevant to the **Tranche 2** project is provided below:

² Public roads in the Republic of Moldova are divided into 5 technical categories, based on traffic volume and purpose: **I-a** – motorways (>16,000 veh/day), **I-b** – expressways (8,001–16,000 veh/day), **II** – national roads

- Up to km 44+420 – Technical Category Ib, with cement concrete pavement (Lot 1)
- From km 44+420 to km 63+430 – Technical Category III, with asphalt concrete pavement (Lot 2)
- From km 70+350 to km 82+430 – Technical Category III, with asphalt concrete pavement (Lot 3)
- Roads with a total length of 6.21 km around the Giurgiulești locality are new construction sections (Lot 4)

The main technical parameters of the existing road by sections are presented in **Table below**.

| Section | Existing | | Proposed | | | | |
|-----------------------------|----------|--------------------|--------------|---------------------|-----------------------|---------------------------|------------|
| | Length | Existing road cat. | Design speed | Paved roadway width | Gravel shoulder width | Minimum horizontal curves | Max. grade |
| Chisinău-Porumbrei | 34 | Ib | 120 | 15 | 3 | 400 | 6 |
| Porumbrei - Cimislia | 14 | III (Ib) | 100 (120) | 7,5 | 1 | 400 | 6 |
| Cimislia - Comrat | 31 | III | 100 | 8 | 1 | 60 | 7 |

Table4-3: Technical parameters of the existing road

The condition of the pavement along the sections of the existing road also varies and is presented in the table below.

| Lot No. | Description |
|----------|---|
| 1 | The cement-concrete pavement averages 24–25 cm in thickness, with slab strength between 59 and 78 MPa. Defective areas are localized, mainly where the bearing capacity of base layers is insufficient. The total area of deterioration does not exceed 18 % of the pavement surface. |
| 2 | Partial reconstruction has been completed on this section. The right-hand carriageway (two lanes, 3.75 m each) is operational, while the left-hand carriageway remains unfinished and has been temporarily conserved. Earthworks, utilities, bridges, and drainage structures are in place. The project was suspended due to funding constraints. |
| 3 | This section consists of asphalt-concrete pavement in poor condition, with structural failure affecting over 50 % of the surface. The bearing capacity of the pavement is estimated between 45 % and 85 % of the value required for normal operation, indicating the need for major rehabilitation. |

Table4-4: Pavement conditions

| No. | Km position | Dimension | Feature | Current technical status of BDLA (ArtWorkDatabase) (CP D.02.26-2023) ³ / IST (Technical Condition Status) | Load class | Action |
|-----------|-------------|-----------|---------------|--|-------------|------------------|
| 1 | 10,746 | 12+33+12 | | Satisfactory / 48 | A-11, HK-80 | Repair |
| 2 | 10,946 | 12+33+12 | | Satisfactory / 53 | | Repair |
| 3 | 14,104 | 15+33+15 | Repaired 2020 | Very good / 97 | | Maintenance work |
| 4 | 14,551 | 4×21 | | Satisfactory / 53 | | Repair |
| 5 | 26,478 | 3×21 | | Satisfactory / 57 | | Repair |
| 6 | 27,304 | 3×15 | | Satisfactory / 56 | | Repair |
| 7 | 30,967 | 12+21+12 | | Satisfactory / 59 | | Repair |
| 8 | 33,454 | 15+24+15 | | Satisfactory / 55 | | Repair |
| 9 | 33,700 | 15+24+15 | | Satisfactory / 55 | | Repair |
| 10 | 42,050 | 2×21 | Repaired 2025 | Very good / 99 | | Maintenance work |

with medium traffic (3,501–8,000 veh/day), **III** – national roads with low traffic (751–3,500 veh/day), **IV** – local and communal roads with very low traffic (200–750 veh/day), **V** – secondary communal roads (<200 veh/day). This classification determines the required construction type and design standards (NCM D.02.01:2015).

³ <https://www.andsa.md/wp-content/uploads/2023/10/CP-D.02.26-2023.pdf> Rules for conducting inspection, diagnostics, and determining the technical condition of works of art

| No. | Km position | Dimension | Feature | Current technical status of BDLA (ArtWorkDatabase) (CP D.02.26-2023) ^{3/} IST (Technical Condition Status) | Load class | Action |
|-----|-------------|-----------|---------------------------------------|---|-------------|------------------|
| 11 | 49,340 | 1×12 | | | | |
| 12 | 52,340 | 1×12 | | | | |
| 13 | 54,165 | 1×12 | | | | |
| 14 | 55,972 | 1×18 | | | | |
| 15 | 57,730 | 1×12 | | | | |
| 16 | 61,758 | 1×12 | | | | |
| 17 | 62,723 | 6×18+1×15 | New construction 2022 Cannon Concrete | Very good / 97 | A-11, HK-80 | Maintenance work |
| | | | | Very good / 97 | | |
| | | | | Very good / 97 | | |
| | | | | Very good / 97 | | |
| | | | | Very good / 97 | | |
| | | | | Very good / 97 | | |
| | | | | Very good / 97 | | |

Table4-5: Information about the main artificial structures (bridge)

The data summarized in Table4-5 provide an overview of the current technical status of the bridges and support the classification of structures according to their condition, serving as a basis for maintenance, rehabilitation, or replacement planning.

| Bridge | Locality | Technical category of the road | Position, km | GPS Location | Technical condition class* |
|--|------------------------|--------------------------------|--------------|--------------------------------|----------------------------|
| Lot 1 | | | | | |
| Crossing bridge | Băcioi Village | IV | 10.75 | 46°56'38.0"N 28°52'02.1"E | III |
| Crossing bridge | Băcioi Village | IV | 10.95 | 46°56'31.6"N 28°52'02.3"E | III |
| G71 Crossing Bridge (repaired in 2020) | Băcioi Village | II | 14.10 | 46°54'51.5"N 28°51'53.1"E | I |
| Road bridge Işnovăţ river / access road | Băcioi Village | II | 14.55 | 46°54'37.7"N 28°51'46.5"E | III |
| Crossing bridge G105 | Horesti Village | III | 26.48 | 46°48'55.4"N 28°54'37.4"E | III |
| Road bridge Botna River | Horesti Village | III | 27.30 | 46°48'28.7"N 28°54'33.7"E | III |
| Crossing bridge (access road) | Răzeni village | III | 30.97 | 46°46'31.9"N 28°54'52.2"E | III |
| Road bridge (Botnişoara River) | Răzeni village | III | 33.45 | 46°45'24.1"N 28°54'14.1"E | III |
| Crossing bridge (access road) | Răzeni village | III | 33.70 | 46°45'23.6"N 28°54'03"E | III |
| G122 Crossing Bridge (repaired in 2024) | Sagaidacul Nou Village | III | 42.05 | 46°41'41.0"N 28°50'48.4"E | I |
| G122.1 Crossing Bridge (built in 2022) | Porumbrei Village | | 40.05 | 46°41'12.67"N 28°49'18.72"E | |
| Lot 2 | | | | | |
| Crossing bridge (access road) (built in 2022) | Sagaidac Village | III | 49.34 | 46°39'18.3"N 28°49'20.3"E | I |
| Crossing bridge (road) (built in 2022) | Sagaidac Village | III | 52.34 | 46°38'08.0"N 28°47'49.2"E | I |
| Crossing bridge (road) (built in 2022) | Coştangalia Village | III | 54.17 | 46°37'12.4"N 28°47'32.0"E | I |
| L559.1 Crossing Bridge (built in 2022) | Coştangalia Village | III | 55.97 | 46°36'14.00"N 28°47'35.1"E | I |

| Bridge | Locality | Technical category of the road | Position, km | GPS Location | Technical condition class* |
|--|----------------------|--------------------------------|--------------|------------------------------|----------------------------|
| Crossing bridge (road) (built in 2022) | Ecaterinovca Village | III | 57.73 | 46°35'17.9"N 28°47'46.8"E | I |
| Crossing bridge (road) (built in 2022) | Ecaterinovca Village | III | 61.76 | 46°33'10.2"N 28°47'11.0"E | I |
| Road bridge (Cogilnnic river) (built in 2022) | Cimişlia town | III | 62.72 | 46°32'44.0"N 28°46'49.6"E | I |

Table4-6: Information about the bridge location and current technical status

*Notes:

I – Construction in very good condition. The structure may show minor defects and degradations with no tendency to worsen. Recommended measures include improving aesthetic characteristics and performing maintenance works.

II – Construction in good condition. The structure shows some defects and initial signs of degradation with a tendency to develop over time. Recommended measures include maintenance and repair works.

III – Construction in satisfactory condition. Structural elements show visible degradation over large areas, with a tendency to affect the load-bearing capacity. Recommended measures include repair, rehabilitation, and strengthening works.

IV – Construction in unsatisfactory condition. Structural elements are in an advanced state of degradation. Recommended measures include rehabilitation and replacement of certain elements.

V – Construction in critical condition. The structure no longer ensures the minimum safety conditions for traffic. Recommended measures include replacement or strengthening of the load-bearing structure affected by degradation.

4.2. Layout of the different facilities

4.2.1. Tranche 2 facilities

The layout of the construction facilities will be designed to ensure safe and efficient execution of road rehabilitation works while minimizing environmental and social impacts. The sites organisation for each lot will include clearly designated zones for material storage, equipment operation, waste management, and worker facilities, following good international industry practice (GIIP) and EBRD Performance Requirements 2,3, 4.

Construction camps and sites facilities. A temporary construction camp will be established near the M3 alignment for each lot, in an area with easy access to the main transport routes and located at a safe distance from settlements, watercourses, and sensitive habitats. At this stage of the Project, the exact locations of construction camps and site facilities have not yet been defined. These locations will be identified and finalized during the pre-construction phase, in close coordination and by mutual agreement with the Road Administration Authority (AND), the Local Public Authorities (LPA), and the Supervision Company. The camp will include site offices and supervision facilities; accommodation and sanitary facilities for workers (if required), storage areas for construction materials (aggregates, bitumen, asphalt, cement, etc.), parking for machinery and vehicles, and maintenance and washing zones for equipment.

Fuel and lubricant storage. Fuel and lubricant storage will be located on a designated, impermeable platform, equipped with containment bunds; oil and water separators for runoff collection; fire safety equipment and absorbent materials for spill containment; and proper labelling and signage. Refuelling operations will be carried out only within this area, under supervision, to prevent accidental spills and soil or groundwater contamination.

Waste storage and management areas. Separate waste collection points will be provided for different waste types: Non-hazardous waste (metal, plastic, wood, cardboard, inert materials); Hazardous waste (used oils, filters, oily rags, paint residues, contaminated soil); Domestic waste: generated from workers' activities. Each category of waste will be stored in clearly marked, covered containers on impermeable surfaces to prevent leaks or dispersion. Waste will be periodically transported to authorized disposal or recycling facilities.

4.2.2. Associated facilities

Adjacent to the Giurgiulești village bypass road, NRA to construct a parking area with a capacity of 30–50 vehicles per day.

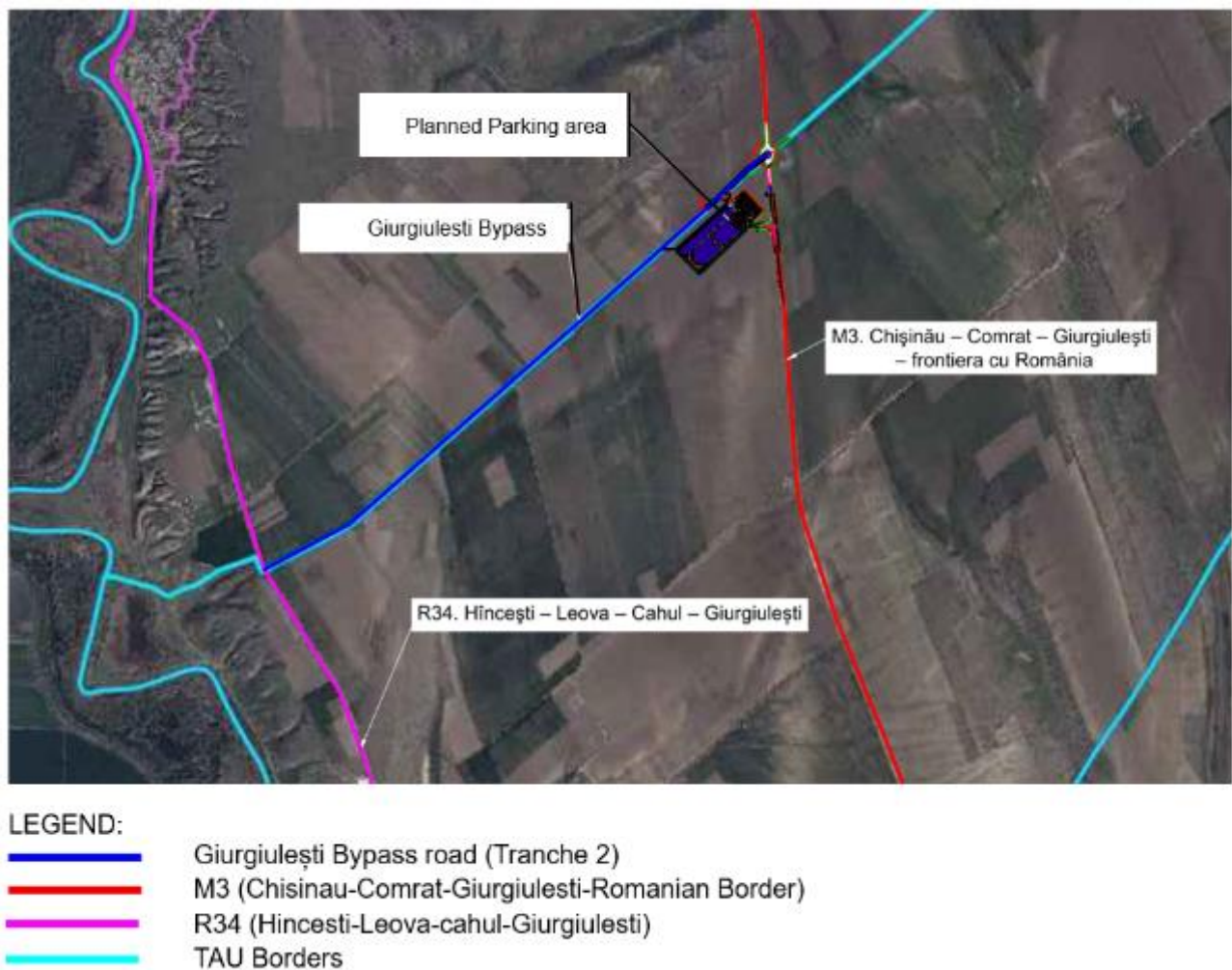


Figure 4-7: Planned Parking Area near Giurgiulești Bypass Road

The project is at the design stage and is located outside the built-up area of Giurgiulești village, Cahul District, on agricultural land with cadastral numbers 9420207.170; 9420207.171; 9420207.172; 9420207.173;

9420207.174, with the following parameters:

- Parking area – covering approximately 3.5 ha, consisting of a concrete/asphalt-paved platform;
- Three buildings intended for sanitary facilities, showers, and a canteen, each building having an area of 495 m²;
- Perimeter fencing of the site with a wire mesh fence, total length L = 1,780 m;
- Electric power supply for lighting and space heating from the existing low-voltage power network in the area;
- Water supply for hygienic-sanitary and potable use from a drilled well;
- Collection and treatment of domestic wastewater from sanitary facilities and showers;
- Collection and treatment of stormwater from the platform.

In addition to the main construction sites for all five-section road, there may be associated or auxiliary facilities that are not necessarily located within the main Project footprint but are required for Project implementation and may generate environmental and social impacts. These may include temporary asphalt and concrete plants; quarries used for aggregate extraction; temporary access roads; crushing plants; external material storage platforms; water sources for construction purposes; and external waste disposal or transfer facilities. The need for and locations of such facilities will be determined during the pre-construction phase and will be subject to coordination with the relevant authorities and compliance with applicable environmental, health, and safety requirements.

4.2.3. Actual Approach for the construction of the roads

Construction of the Roads start with elaboration of the design of works which is subject of national public acquisition process, organized by NRA on a web-based platform MTender Public Portal (www.mtender.gov.md) and is included in an Annual Public Acquisition Plan, published and approved by the NRA. Design of works is elaborated on the basis of a Project Theme, which includes the requests for development of the design of works according to the provisions of the European Standards implemented from 01.01.2021, including a Feasibility Study, the documentation necessary to initiate procurement procedures, ESMP and mention that a Road Safety Audit of the Project will be provided.

The framework content of a design of works in the Republic of Moldova is regulated by technical construction regulations, in particular by NCM A.07.02:2012/A1:2017 - Procedure of development, coordination, approval and composition of design documentation for construction and include: Volume with Book 1 – Explanatory Memorandum. Volumes of Works, book 2 – Technical Specifications, book 3 – Bill of Quantities, Volume – Road Works, Volume – Telecommunications Networks, Volume – Power Distribution Lines, Volume – Road Lightning, Volume – Gas Supply. Outlying Pipelines, Volume – External Water Supply System and Sewerage Networks, Volume – Borrow Pit for the Extraction of unconsolidated sedimentary rocks (if required), Volume – Environmental Impact, Volume – Construction Organisation Project, Volume – Materials for Land Acquisition, Volume – Estimation Costs.

Attachments as – Topographical Survey Report, Geotechnical Report, Hydrometeorological Report, Pavement Survey Report, Bridges Survey Report, Traffic Studies. The design of works must comply with the technical

regulations in force at the date of its preparation and is subject to verification by certified project verifiers and, where applicable, technical expertise.

Regarding Lot 4 - the design of works D-065-PE/2024 and D-066-PE/2024 include all mentioned volumes and are detailed described. Lot 3 - there is no design of works elaborated, Lot 2 - the design of works 265/2013 – was elaborated for Phase 1 works and incorporated embankment works for 4 lanes and bridges, there is no design of works yet elaborated specifically for Phase 2. Lot 1 – the design of works 229/2014 – was elaborated based on NCM A 07.02.99, which was later replaced by NCM A.07.02:2012/A1:2017.

Construction Organization Project or Site Organization Plan: Mandatory according to the national legal framework document for the execution of a project design that establishes spatial, constructive and technological systematization solutions for the period of execution of the works.

Normative document NCM A.08.01:2016 establishes the main requirements for the organization of construction and installation works on new construction objects, as well as for the reconstruction, repair, demolition (dismantling, disassembly) of existing construction objects. Practical Code CP A.08.06:2014 establish methodology for developing construction site organization projects. The information provided in the

Construction Organization Project includes: organisation of construction works, data about the beneficiary and the general contractor, general solutions about organizing work, methods of performing work, list of hidden works subject to examination with the preparation of corresponding documents as follows: organization of quality control of construction and installation works, occupational health and safety, fire safety measures, environmental protection measures in the construction process, staff recruiting, traffic management plan.

National Road Administration – the Project Beneficiary will tender and select the Execution Contractor that will build the road. The Execution Contractor will be responsible to setting of the camp and laydown areas.

Therefore, the scope of the project construction facilities and their impact is not known at this stage and shall be re-assessed once this is known – potentially at the detailed design phase and ESMP update.

Based on existing practice, NRA procurement requests which refer to FIDIC Red Book⁴ asks the Execution Contractor to establish an area / camp that can fully provide for the workers and the construction needs. We assume that: the camp will be equipped with accommodation and facilities for canteen, sewage, workshops, laydown areas, packing etc. and accommodation will meet the EBRD requirements for setting accommodation (Guidance Note by IFC/EBRD – workers' accommodation: processes and standards).

The location of the camp and laydown areas will be determined in close dialog with the local authorities based on space available and/or reuse of potential existing laydown areas.

Construction of any temporary access roads connected to the establishment of camp/laydown areas is also not known and needs to be assessed later.

The water used in concrete production and other construction processes may come from the public water supply or another source; however, in the latter case, it must meet the technical conditions specified in SM SR EN 1008:2003. The methods of determination are regulated by the same SM SR EN 1008:2003.

Drinking water for employees is bottled and provided through outsourcing delivery system.

⁴ FIDIC Red Book is the standard international contract used for construction works where the design is prepared by the Employer (Client) (e.g., national roads, bridges, water infrastructure).

The number of mechanisms and required personnel will be calculated by the contractor selected through the bidding process. The contractor will prepare the calendar schedules and work programs, which will be submitted to the Beneficiary.

4.2.4. Roles and Responsibilities

The main parties involved in the Project implementation and holding specific responsibilities are:

- the **Road Administration Authority (NRA)**;
- the **NRA Supervision Consultant**, acting as the Engineer for works supervision;
- the **Contractor**.

All these parties have or will appoint dedicated environmental specialists within their teams to supervise, coordinate, and monitor the Project implementation process. At district level, institutions such as the Environmental Protection Inspectorate and the Public Health Center will also be involved, for example through inspections of the Contractor's construction sites and monitoring compliance of operations with national legislation. At the local level, municipalities or other local community representatives will also be involved, particularly in the case of grievances or in supporting the resolution of local issues.

The Environmental and Social Management Plans (ESMPs) will be attached to the Tender Documents and Construction Contract and will become mandatory contractual requirements. The Contractor, engaged by NRA, will be responsible for implementing the majority of mitigation and management measures defined in the ESMP, in accordance with the provisions of the construction contract.

NRA will be the party responsible for Project implementation during the pre-construction phase. The Contractor will be responsible for road maintenance, operation, and construction/reconstruction activities during the construction phase, while the road maintenance service will be responsible for road management during the operation phase.

The **National Road Administration (NRA)** is the overall implementing agency responsible for ensuring that environmental, social, health, and safety requirements are met throughout the Project lifecycle, in line with EBRD Performance Requirements (PR1–PR10) and the ESMP. Specific responsibilities include:

- **Coordination and Oversight:** Day-to-day coordination of all environmental, social, and stakeholder engagement activities across the Project, ensuring integration of ESMP, SEP, and GRM requirements.
- **Grievance Management:** Maintenance of the Grievance Register and reporting to EBRD on all grievances received, their status, and resolutions, ensuring timely response and follow-up in line with the Project GRM.
- **Stakeholder Engagement:** Organisation of public consultations, stakeholder engagement events, and monitoring meetings to ensure affected communities, local authorities, and other stakeholders are informed and consulted regarding Project activities and impacts.
- **Contractor Compliance:** Ensuring that Contractors and Supervision Consultants implement the ESMP, C-ESMP, SEP, and GRM requirements in accordance with EBRD Performance Standards.
- **Monitoring and Reporting:** Preparation and submission of quarterly and annual environmental, social, and grievance monitoring reports to EBRD and relevant authorities, including the status of ESMP implementation, mitigation measures, and compliance with applicable permits and regulations.

- **Coordination with Authorities:** Liaison with Local Public Authorities (LPAs), Environmental Protection Inspectorate (EPI), Public Health Centers (PHC), and other relevant institutions to facilitate inspections, monitoring, and compliance verification.
- **Capacity and Oversight of Experts:** Oversight of Environmental and Social Specialists appointed by Contractors and Supervision Consultants to ensure they implement ESMP mitigation measures effectively, provide training to site personnel, and maintain compliance with EBRD and national requirements.
- **Continuous Improvement:** Review and approval of updates to the ESMP, C-ESMP, and associated plans as construction methodologies or activities change, ensuring environmental and social risks are managed and mitigated throughout the Project lifecycle.

The **Designer** is responsible for monitoring the application of the provisions of the design documentation during the execution of construction works and for participating in the preparation of the Construction Technical Book and in the acceptance of the completed works.

The **Contractor** is responsible for the proper execution of works in accordance with predefined measures and in compliance with national standards and the requirements of the financing institution. For this purpose, the Contractor shall appoint an Environmental Officer (e.g. environmental engineer or environmental specialist or equivalent) and a Social Consultant with adequate experience, who will be responsible for implementing all environmental and social requirements of the ESMP.

The Contractor's appointed experts shall ensure compliance with environmental and social standards and shall be responsible for the implementation of the Environmental and Social Management Plan of the Contractor (C-ESMP) in accordance with clearly defined duties and responsibilities.

Any issues arising during the construction period shall be communicated to the Engineer and NRA. The environmental and social experts shall have the authority to issue instructions to site personnel and subcontractors on matters related to occupational health and safety and environmental management of construction sites. The experts will also be involved in training workers on environmental and safety practices and in raising awareness among Project-affected communities.

The Contractor, together with the environmental and social experts, shall prepare the **Contractor's Environmental and Social Management Plan (C-ESMP)**. The C-ESMP shall include, but not be limited to, the environmental and social requirements set out in the tender and contract documentation. At a minimum, the C-ESMP shall include the following:

- the Contractor's Environmental Management System;
- Construction site restoration and rehabilitation plan;
- Soil management plan;
- Air quality management plan, including dust emission control;
- Waste management plan, including hazardous waste;
- Contractor's Occupational Health and Safety Management Plan (including incident management, training, performance reporting, medical treatment, hazardous operations, emergency preparedness and response, etc.);

- Traffic Management Plan (TMP), developed in cooperation with Local Public Authorities to ensure adequate traffic flow within and around the Project area and to prevent road accidents; the TMP shall include working schedules, signage, fencing, traffic diversions, etc.;
- Contingency plan for potential technological and natural risks (including natural hazards and extreme events such as floods, storms, lightning, landslides, seismic events, etc.) to protect human health and the environment in emergency situations;
- Chance Find Procedure (CFP), defining the methodology to be applied in the event of accidental archaeological discoveries.

The C-ESMP shall be approved by the Engineer prior to the commencement of construction works. Once approved, the Contractor shall comply with all its requirements and update the document periodically. Any changes in construction methodology or site activities shall be followed by corresponding updates to the C-ESMP, which shall be submitted to the Supervision Engineer for review and approval.

The **Technical Supervision Consultant (Engineer)** shall ensure that the Contractor properly implements the environmental requirements specified in the contract documentation and in the approved ESMP at the start of construction works. As environmental monitoring must be carried out on a daily basis, the supervision team shall include an Environmental Expert and a Social Expert. Their responsibilities shall include:

- reviewing and approving the Contractor's C-ESMP;
- maintaining liaison between key representatives of NRA, LPAs, the Public Health Center, the Environmental Protection Inspectorate, local communities, and other stakeholders potentially affected by the Project;
- monitoring the Contractor's environmental practices, including approval of locations for temporary storage or disposal of materials and waste;
- preparing and submitting monthly C-ESMP implementation reports to NRA;
- preparing and submitting the final environmental and social report, which shall be considered during the final acceptance of construction works.

4.2.5. Tender performance of construction works (International Acquisition)

The Foreign Investment Directorate which goal is to rehabilitate and construct national roads in conditions of road safety, fluency and continuity, mentioned in the Financing Agreements signed between the Government of the Republic of Moldova and the International Financial Institutions "IFI" is organizing, conducting and completing the evaluation process of offers/applications submitted for public procurement procedures financed from external sources; implement the contracts for: Execution of works; Design (Technical Design and Execution Details phase), Supervision consultancy services, related to the Road Sector Program Support Project, the Local Road Improvement Project, as well as other projects.

International Tenders are published on-line at <https://www.andsa.md/categorie/tendere-internationale/> and are accompanied by the following phases: Invitation for participants, Pre-Bid Meetings, Addendums and Clarifications, Specific Procurement Notices, Public Tender Opening, Tender Award Notice.

General Evaluation Matrix operated by NRA in international acquisition:

Qualification Criteria Evaluation (Eligibility, Experience, Financial Resources, Subcontractors, Personnel,

Equipment), Technical Proposals Evaluation (listed below), Technical Factors Evaluation (Works Risk Analysis and Appropriate Mitigation Measures, Local Participation & Knowledge Transfer), Financial Proposals Evaluation, E&S Requirements and Health Safety Requirements.

Technical Implementation Requirements are evaluated using the criteria listed below, which are assessed on its merits and scored as a pass or failure.

| Technical Implementation Requirements | | |
|---------------------------------------|---|--|
| No. | Components | Sub-criteria |
| 1. | The Bidder/Contractor | Presence of Project Agreement between JV Partners |
| | | Presentation of Roles and Responsibilities among JV Partners |
| 2. | Site Organisation | Location of Site Camps Depots |
| | | Location of Asphalt Plant and distance from site |
| | | Means of Communication |
| 3. | Method Statement | Sub-grade/earthworks constructions |
| | | Sub-base construction works |
| | | Cement stabilised based-course preparation and construction process |
| | | Asphalt pavement construction process |
| 4. | Materials Availability | Identification and indication(s) of sources of materials to be used |
| 5. | Mobilization Schedule | Mobilization Schedule Gant chart: comprehensiveness of the list of preconstruction activities |
| | | Mobilization Schedule Narrative: description of sequencing, phasing, assumptions, limitations and remedies |
| 6. | Construction Schedule | Divisions of works into appropriate construction sections and stages |
| | | Utilization of equipment, material and personnel |
| | | Bar chart sub-divided into sections |
| | | Logic of sequence of activities shown against time with linkages with related works |
| | | Resource work programme showing contractor equipment, resources allocation for different stages, major plant, etc. |
| 7. | Quality Control Program | System Description and Goals |
| | | Quality Control Organisation Structure |
| | | Quality Control Duties, Auditing and Training |
| | | Laboratories |
| 8. | ESHS Management Strategies and Implementation Plans | Reporting |
| | | Environment and Social Management Plan |
| | | Site-Specific ESMP |
| | | Resettlement Policy Framework |
| | | Stakeholder Engagement Plan |
| 9 | Organizational Structure | Labour Management Plan |
| | | Contractor's Representative and Key Personnel |
| | | Equipment |

Table4-7: Technical requirements

Environment and Social Requirements: NRA states that the Contractors should follow a set of environmental guidelines for contractors prescribed by the ESMP; Contractors should submit, as part of their bid, a site-specific Contractor's Environmental and Social Management Plan (C-ESMP based on ESMP

attached to Bid Documents, with the detailed description of implementing arrangements) including implementation staff.

Health and Safety Requirements. A Health and Safety (H&S) Plan must be prepared and approved prior to any works commencing on site. The H&S Plan must demonstrate the Contractor's understanding of how to manage safety and a commitment to providing a workplace that enables all work activities to be carried out safely. The H&S Plan must detail reasonably practicable measures to eliminate or minimize risks to the health, safety and welfare of workers, contractors, visitors, and anyone else who may be affected by the operations. Within the Procurement process it is important to note that none of the common international frameworks cover all of the requirements of PR2, and therefore it will typically be necessary to identify 'gaps' with PR2 requirements. According to NRA procurement requests which refer to FIDIC Red Book, it is important to emphasize the gaps related to PR2 and tender procurements. More details mentioned at chapter 5.4.4 Occupational Health and Safety, Labour and working conditions impacts and chapter 6.4 Socio-Economic Management of Impacts and Issues.

4.3. Detailed description of the Project

4.3.1. Common design features

The Project involves rehabilitation, widening, and limited new-construction works along four sections of the M3 Chişinău – Cimişlia – Comrat – Giurgiuleşti corridor.

Design standards follow CP D.02.12-2014 and CP D.02.25-2021, ensuring compliance with national geometric and pavement specifications for Class I-b and Class II roads.

Typical cross-section

- Two or four traffic lanes, each 3.50 m wide, with 2.50 m shoulders (including 0.50 m paved edge).
- Side ditches and culverts for drainage; new safety barriers and signage throughout.
- Pavement structure (typical):
 - *Cold recycled asphalt, Type M*, with 30 % new aggregate and cement – 0.15 m
 - *Binder course* of open-graded asphalt concrete BAD 22.4 16 – 0.06 m
 - *Wearing course* of stabilized asphalt mixture MAS 16 – 0.04 m
- All bridge decks and culverts will receive waterproofing, parapets, and guardrails meeting current safety codes.

Construction will be carried out under traffic, using phased works and short detours to maintain accessibility. Materials will be obtained from licensed quarries and asphalt plants in compliance with environmental and occupational-safety regulations.

The typical cross-sections provided are for reference only; complete information is available in the relevant sections of the detailed Project design documentation.

4.3.2. Lot 1 - Airport I/C – Porumbrei

Length: 34.4 km (km 10+000 – km 44+350, with 4 traffic lanes)

Works: Rehabilitation; pavement strengthening; replacement of existing culverts; renewal of horizontal and vertical signage.

Minor realignments will improve curvature and visibility near Răzeni and Porumbrei. All works remain within the existing right-of-way. No permanent land acquisition is required.

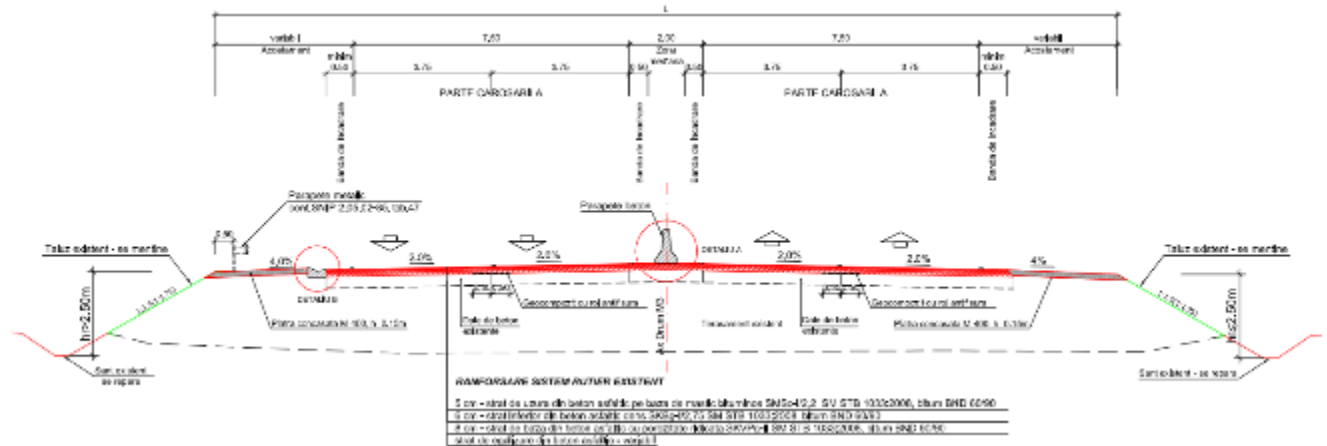


Figure 4-8: Typical transverse sections

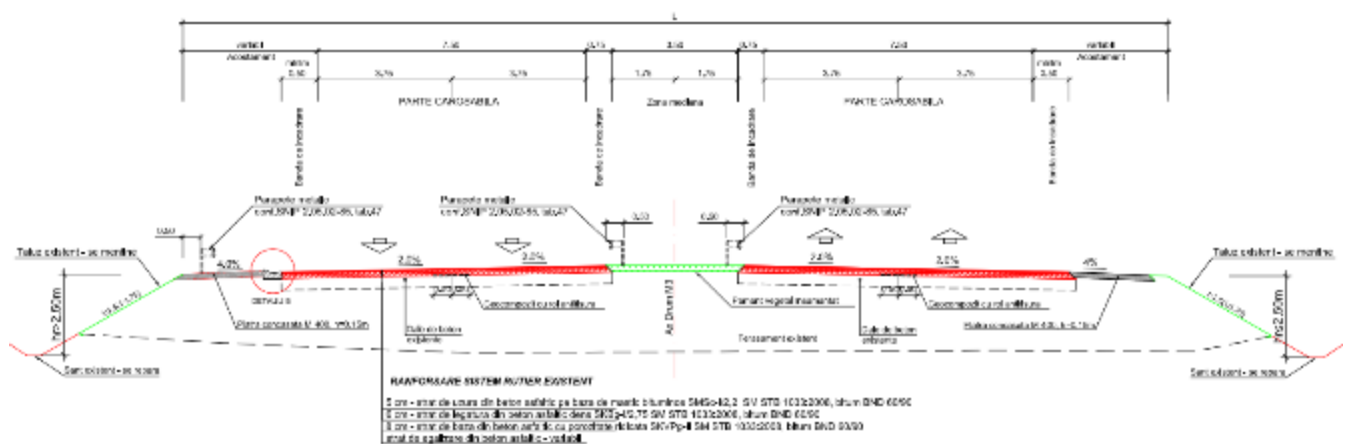


Figure 4-9: Typical Roadway Cross-Section and Structural Reinforcement Design



Figure 4-10: Illustrative photo of Lot 1

4.3.3. Lot 2 - Porumbrei – Cimișlia

Length: 19 km (km 44+420 - km 63+430)

Works: Widening of the existing two-lane section to four lanes, with full pavement reconstruction and upgraded drainage. Safety measures include new guardrails, lighting at intersections, and improved pedestrian crossings near villages along the route. This section passes mainly through agricultural land and does not intersect protected natural areas within 1 km of the alignment.

According to available data, the first phase of the construction of the Porumbrei-Cimișlia motorway was launched on 01.02.2019 with financing through the EIB contract RSP/W9/02, and the works were completed on 21.10.2022. Execution – 100%. The works of the entire project were divided into 2 phases: Phase 1 – included the construction of the 4-lane embankment and the 2-lane carriageway. The works carried out within the project included the construction of a new road with an asphalt concrete surface, the rehabilitation of a bridge near the village of Porumbrei, the construction of 7 other bridges, 19 footbridges and rainwater drainage channels. Also, to increase the level of safety of traffic participants, over 1000 road signs were installed and the corresponding road markings with the most innovative solutions for increasing security were applied. Details about the project - <https://harta.and.md/> . Phase 2 - provides for the expansion from 2 to 4 lanes km 0.00- 19.010 is part of this project.

Total land allocated for construction in the Porumbrei–Cimișlia sector was 91.13 ha. Total number of trees removed in the first phase during right-of-way clearance: 729 units. Bridge structures, culverts, engineering networks, and the roadbed are 95–100% complete.

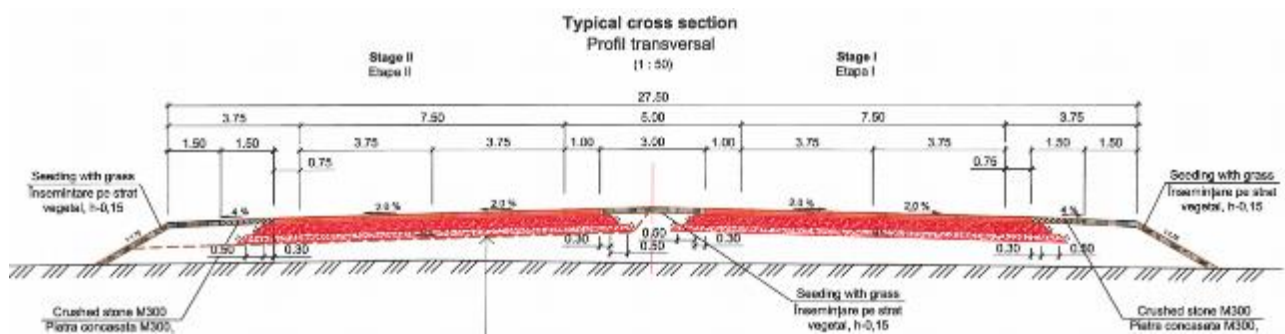


Figure 4-11: Typical cross-section

At present, the operational road remains an unfinished construction project, with an estimated completion rate of 80–85% (Figure 4-12: General view of the Lot 2 road section).



Figure 4-12: General view of the Lot 2 road section

4.3.4. Lot 3 – Cimișlia - Comrat

Length: 12 km (km 70+350 – km 82+430)

Works: Rehabilitation of the existing two-lane road with pavement replacement, shoulder strengthening, and selective drainage improvements. No new alignment or additional land acquisition is foreseen. Works will restore structural integrity and riding quality while reducing maintenance needs.

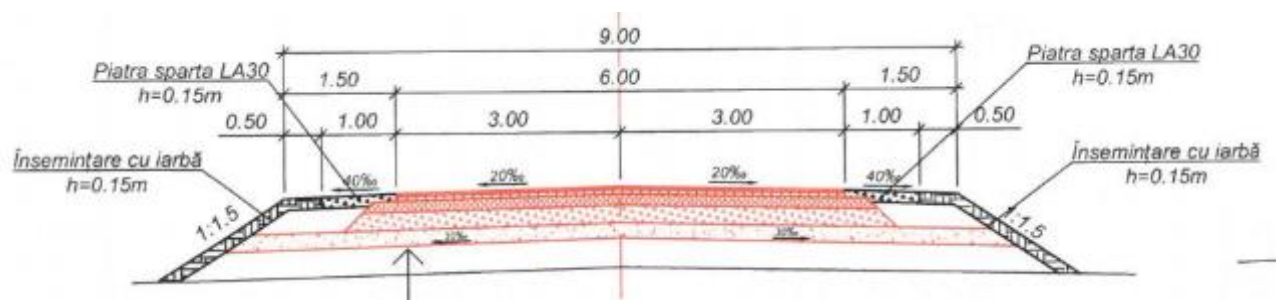


Figure 4-13: Typical cross-section, Lot 3

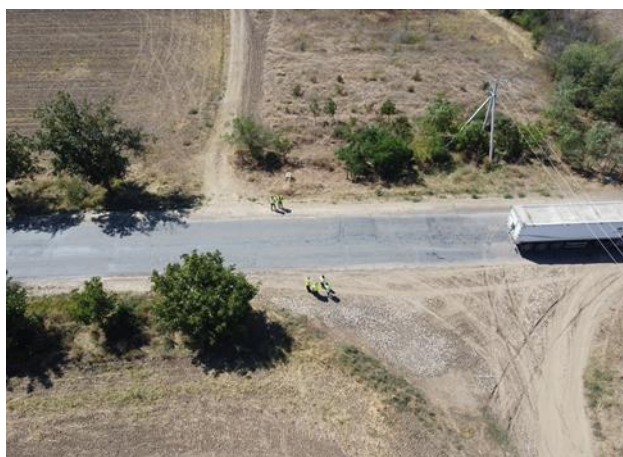


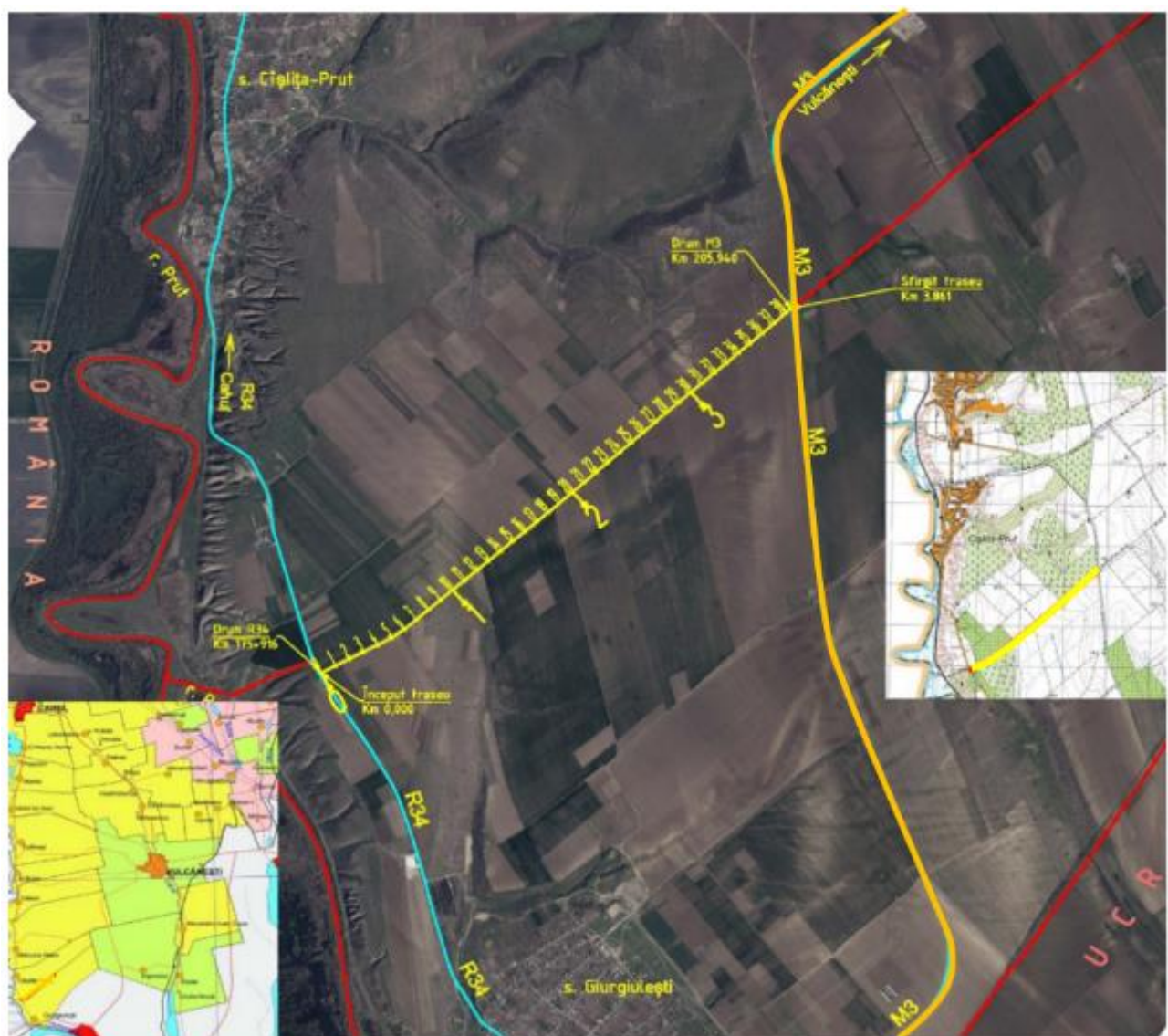
Figure 4-14: Illustrative photo of Lot 3

4.3.5. Lot 4 - Giurgiulești Ring Road and Border Links

Length: 6.2 km

Works: Rehabilitation of the M3 road (km 211.98 – km 213.69) and the M3.1 road (km 0.0 – km 0.65), as well as construction of a new 3.86 km bypass road around Giurgiulești village.

From a logistical perspective, these roads are of strategic importance for the southern region of Moldova. The construction of the bypass will redirect heavy traffic to the border checkpoints with **Ukraine and Romania**, which currently pass through the village of Giurgiulești, causing discomfort for residents and compromising traffic safety. The location of the road structures is shown in **Figure below**.



LEGEND:

- New road, Giurgiulești Bypass (Tranche 2)
- M3 Express road
- R34 Republican road
- Territorial boundaries

Figure 4-15: Position of project road, Lot 4 (Giurgiulești Bypass)



LEGEND:

| | |
|---------------------------------------|------------------------------|
| — | M3 and M3.1 road (Tranche 2) |
| — | M3 Express road |
| — | R34 Republican road |
| — | Territorial boundaries |

Figure 4-16: Position of project roads, Lot 4 (M3 and M3.1)

| M3 road, Tranche 2 | Giurgiulești Bypass | M3 km211+980-km213+690 and M3.1 |
|--|---------------------|---------------------------------|
| Road category (NCM D.02.01:2024) | III | III |
| Climate zone | IV | IV |
| Length, km | 3,86 | 2,45 |
| Type of road surface | Asphalt | Asphalt |
| Number of lanes | 2x4,0m | 4x3,5m |
| Annual average daily intensity according to the design documentation, vehicles per day | 3709 (2024) | 2335 (2023) |
| Potential annual average daily intensity according to the design documentation, vehicles per day | 7356 (2047) | 4793 (2047) |
| Design speed (flat terrain), km/ hour | 100 | 100 |
| Design load, kilo-newton | 115 | 115 |
| Carriageway width, m | 7,0 | 15-17 |
| Side roads, un. | 9 | 23 |
| Property accesses, un. | - | 16 |
| Sidewalks, un. | - | 4199 |
| Culverts and drains, m. | 9502 | 2790 |
| Bridges, un. | 14 | 5 |
| Protective barrier | 2472 | 4302 |

Table4-8: Overview of main characteristics of Project Roads (Lot 4)

Based on traffic data and the provisions of NCM D.02.01:2024, the sections of the M3 Chişinău - Comrat - Giurgiuleşti - Romania border road (km 211.98-213.69), and the M3.1 Giurgiuleşti - Ukraine border road (km 0.0-0.65) are classified as technical category III.

However, considering that both the M3 Chişinău - Comrat - Giurgiuleşti - Romania border road (km 211.98-213.69) and the M3.1 Giurgiuleşti - Ukraine border road (km 0.0-0.65) connect two border crossing points (Giurgiuleşti–Reni and Giurgiuleşti–Galaţi), and that the traffic intensity is mainly generated by vehicles moving at an average speed below 3-5 km/h or remaining stationary in certain sections, the geometric design of these roads has been adapted.

Thus, while formally classified as category III, the roads are designed with four traffic lanes to accommodate queuing vehicles and prevent congestion near the border. This design solution aims to avoid road blockages caused by vehicles waiting to cross.

Typical cross-sectional profiles of the road are shown in the figures below.

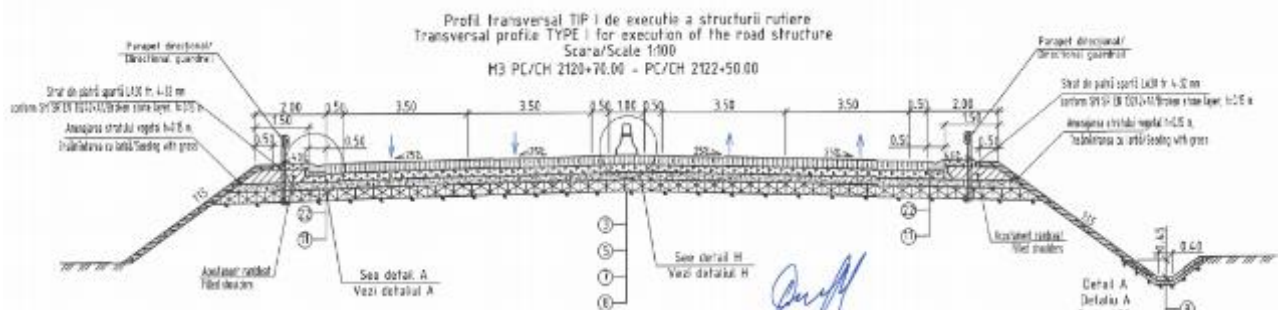


Figure 4-17: Typical cross-section on section M3 km211+980 - km213+690 and M3.1

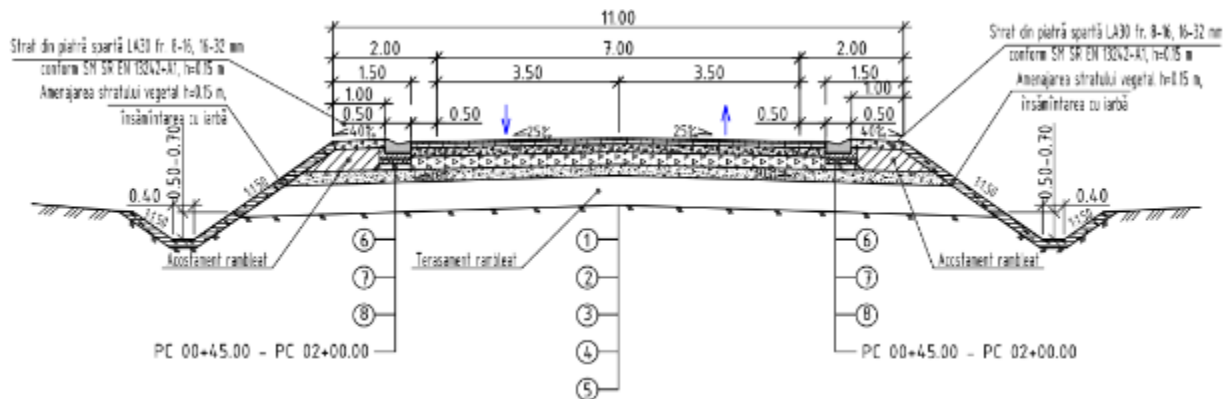


Figure 4-18: Typical transverse profile on the section of the bypass road of Giurgiulesti village



Figure 4-19: Illustrative photo of Lot 4

4.3.6. Construction materials and standards

For the execution of reconstruction works on the M3 road (Tranche 2), **construction materials** will be sourced from several licensed quarries and production plants located in the central and northern regions of the Republic of Moldova. The selection of suppliers is based on their production capacity, material quality (compliance with technical standards), and their relative proximity to the project site, which ensures both technical reliability and cost efficiency. The main sources of construction materials include quarries for crushed stone, gravel and sand, as well as asphalt and concrete plants for producing bitumen, asphalt mixtures, and prefabricated elements.

The initial list of suppliers is as follows:

1. Petriș Quarry, Vatra town – Crushed stone (various fractions).
2. Petriș Quarry, Vatra town – Gravel aggregate, grade M400 (approx. 42 km from the project site).
3. Goianul Nou Quarry – Sand and a mixture of sand and gravel.
4. Asphalt Concrete Plant, Vatra town – Asphalt concrete and bitumen.
5. FEC Concrete Plant, Chișinău – Ready-mix concrete and precast concrete elements.

Cosăuți Quarry – Crushed stone M1000 (approx. 200 km from the project site).

All asphalt mixtures and cement-treated layers comply with national technical prescriptions:

- **CP D.02.12-2014** – Cold recycled asphalt with cement binder.
- **CP D.02.25-2021** – Asphalt-concrete and stabilized asphalt mixtures.

The Contractor is responsible for ensuring that all materials meet these standards. Aggregate (sand, gravel, crushed stone) and binder (bitumen and cement) quality shall be tested by an accredited laboratory, and results verified and approved by the Supervision Engineer before asphalt production and use on site. Tests cover key properties such as particle size distribution, cleanliness, moisture content, hardness, and chemical composition. All construction materials shall be accompanied by certificates of quality and environmental safety compliance.

Borrow Pit "Cișlița-Prut"

The project "Design Works for the Preparation of the Execution Project Concerning the Construction of the

Bypass Road in Giurgiulești Village, Cahul District," developed in 2024, included the arrangement of a borrow pit for extracting unconsolidated sedimentary rocks necessary for constructing the embankments of the bypass road in Giurgiulești village.

The borrow pit is located outside the built-up area of Cîșlița-Prut village, Cahul district, on land plot no. 5415029, which is publicly owned. Geographical coordinates: 45°33'25.83"N / 28°14'58.48"E.

The site is situated on the crest of a hill, on the left side of the national road M3 (Giurgiulești–Cahul), outside inhabited zones, with no surface water sources in the vicinity.

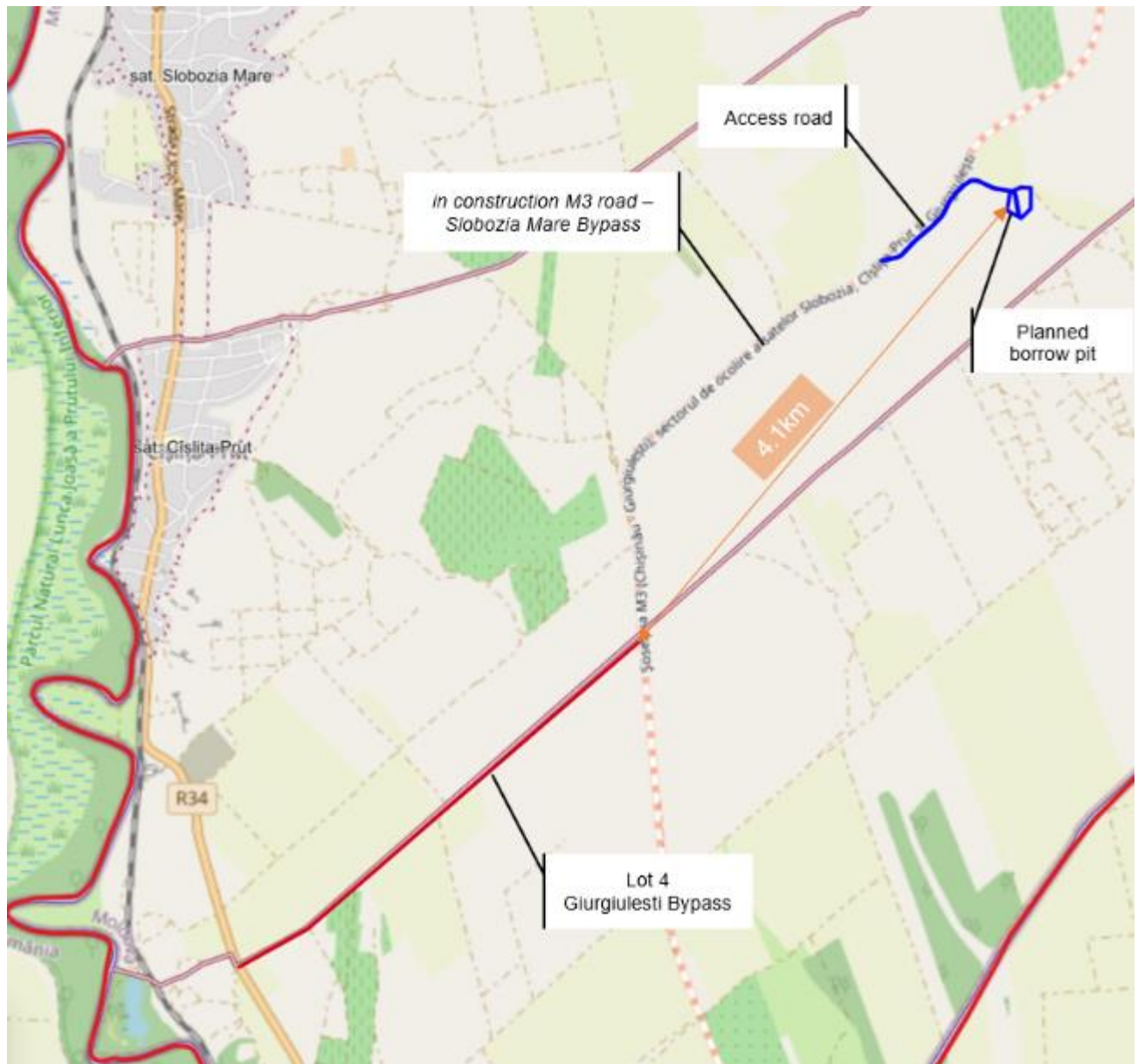


Figure 4-20: Location of the planned borrow pit

The land is not registered in the Register of Immovable Property – delimitation and registration procedures are to be carried out. The land is public unregistered, currently used solely for grazing, Figure 4-21: Land cover of the planned borrow pit

Total area of the land: 3.0 hectares;

- Estimated volume of available soil: approximately 95,000 m³;

- Maximum excavation depth: up to 5.0 m;
- The removal of the topsoil layer (approximately 14,230 m³) will be performed and stored in a protected area for reuse in recultivation;
- An access road to the excavation platform will be constructed, approximately 1,500 meters long, with the removed topsoil layer decapitated and subsequently compacted.



LEGEND:

— M3 Express road Slobozia mare Bypass (under construction)

Land Cover:

| | |
|-----|---|
| I | AGRICULTURAL AREAS, Pastures |
| II | AGRICULTURAL AREAS, Arable land |
| III | FOREST AND SEMI-NATURAL AREAS, Scrub and/or herbaceous associations |
| IV | AGRICULTURAL AREAS, Permanent crops |

Figure 4-21: Land cover of the planned borrow pit

Engineering-geological investigations identified:

- Layers of sandy loam, loess-like soil, clay, and sandy phosphorus soil, with thicknesses ranging between 0.2 and 6.0 meters;

- The soils are stable, slightly permeable, with no groundwater at shallow depths;
- The soils are suitable for embankment construction, with a filtration coefficient $K_f \approx 1.1 \times 10^{-4} \text{ m/24h}$.

4.4. Traffic flow and traffic forecasting

Traffic surveys and forecasting were undertaken at several stages of project preparation to determine the design capacity and operational needs of the M3 Road Corridor. Initial traffic studies were carried out by Kocks Consult GmbH (2008–2009) as part of the feasibility assessment, followed by verification counts by the State Road Administration / National Road Administration (NRA) in 2014–2015 and 2024–2025.

These consistent datasets confirm a sustained average annual growth of about 3 percent for all vehicle categories.

Data sources and methodology

Traffic-flow analysis draws from surveys and projections prepared at different stages:

| Source | Period | Purpose / Content |
|---------------------------------|---------------------------|---|
| Kocks Consult GmbH | 2008 – 2009 | Baseline classified counts and initial forecasts |
| State Road Administration / NRA | 2014 – 2015 & 2024 – 2025 | Verification counts and updated projections |
| IMF Economic Outlook | 2024 – 2043 | GDP-based growth assumption of $\approx 3\%$ per year |

Table4-9: Data sources

Vehicle classes include passenger cars, minibuses, buses, light/medium/heavy trucks, articulated trucks, and special vehicles.

Forecast horizons: **2030**, **2039**, and **2047**.

Growth rates were applied uniformly across categories, reflecting the corridor's role in linking central and southern Moldova and supporting trade between the EU and Ukraine.

Measured 2025 traffic volumes closely match the earlier high-growth scenario ($\approx 10,000$ vehicles/day), confirming the reliability of the adopted assumptions. Passenger cars account for about 70–80 % of total flow, while heavy-goods vehicles represent 8–12 %.

| Lot | 2025 Observed AADT | 2039 forecast (AADT) | 2047 forecast (AADT) | Indicative Design Category |
|--|----------------------------------|----------------------|----------------------|----------------------------|
| 1 – Airport I/C – Porumbrei | $\sim 10\,000$ | $\sim 15\,000$ | NA | I-b (4 lanes) |
| 2 – Porumbrei – Cimişlia | 8000 | 11000 – 15000 | NA | I-b |
| 3 – Cimişlia – Comrat | $\sim 3\,500 \rightarrow 6\,000$ | 8 000 – 10 000 | | II |
| 4 – Giurgiuleşti Ring Road* | 3820 | 5807 | 7356 | III (new construction) |
| 4 – Giurgiuleşti Border links (M3, M3.1)** | 2477 | 3765 | 4793 | III |

Table4-10: Summary of design traffic volumes

* Source: DD No. D-065-PE/2024

** Source: DD No. D-066-PE/2024-ME

Available forecast data can be used to estimate traffic on Lots 1–3, but with limited reliability. As up-to-date information (as of 2025) on traffic intensity and composition along these sections is not available, it is recommended to carry out an actual traffic survey, taking into account the extended capacity of the road.

Additional information regarding traffic forecasts can be found in Annex 3. The sustained increase in traffic confirms the strategic importance of the M3 corridor in connecting central and southern Moldova, forming part of the TEN-T comprehensive network and implementing the priorities of the National Transport and Logistics Strategy 2023-2030, which aim to improve cross-border connectivity, road safety, and regional accessibility.

The traffic forecasts also provide the quantitative basis for assessing air emissions, noise, and road-safety impacts described in later ESIA chapters.

4.5. Analysis of alternatives

During project preparation, potential alternatives were reviewed to determine the most technically, economically, and environmentally viable solution for the rehabilitation of the four road lots included in the assignment. The analysis considered both the “no-project” scenario and the improvement of the existing road corridor, as well as an alternative technical solution for pavement rehabilitation. The comparison aimed to identify the approach that best supports considering the Project’s strategic role in enhancing connectivity within the national and TEN-T road network.

4.5.1. No-Project Scenario

Under the “do-nothing” option, the current condition of the road would persist, leading to continued pavement degradation, increased vehicle operating costs, and a higher frequency of accidents due to poor surface quality. From an environmental perspective, the absence of rehabilitation would not generate additional impacts, but it would also prevent the expected environmental benefits associated with smoother traffic flow, reduced idling, and lower emissions from stop-and-go driving.

Socio-economically, maintaining the status quo would limit regional mobility and economic integration, slowing trade and passenger transport between Moldova and neighbouring states, particularly on the Giurgiulești corridor.

4.5.2. Improvement of existing corridor

The preferred concept at design stage involved rehabilitation and partial widening within the existing right-of-way, minimizing new land acquisition and avoiding sensitive habitats identified during baseline studies.

This option allows for improved pavement structure, drainage, and road-safety features, achieving compliance with current design standards while reducing fuel consumption and vehicle emissions per kilometre travelled.

The selected design also enhances the resilience of the transport network by improving access to international routes and reducing maintenance costs over the project’s lifecycle.

4.5.3. Other design and technical alternatives (preferred option)

In accordance with the technical project for Lot 1, a variant with the construction of a three-layer asphalt concrete pavement 19 cm thick was originally proposed.

Given the good structural condition of the existing cement-concrete pavement—damaged on no more than 20 % of its total area and showing an average strength of 65–68 MPa (1.7 times higher than required)—an alternative solution using the Diamond Grinding method was evaluated.

This method restores the operational qualities of the concrete pavement without applying additional layers and has been demonstrated in Moldova and EU countries to yield superior economic and environmental performance.

| Types of work | Project option | Alternative option |
|---|----------------|--------------------|
| Repair and sealing of expansion joints | + | + |
| Installation of asphalt concrete pavement (3 layers, 19 cm) | + | – |
| Installation of reinforcing layer | + | – |
| Demolition of damaged concrete slabs | + | + |

| Types of work | Project option | Alternative option |
|--|----------------|--------------------|
| Repair of plates with concrete | - | + |
| Replacement of damaged plates with asphalt | + | - |
| Restoration of evenness by Diamond Grinding | - | + |

Table4-11: Project and alternative options

| Estimated quantity of main materials | Project option | Alternative option |
|--------------------------------------|----------------|--------------------|
| Hot-mix asphalt (t) | 362 500 | – |
| Concrete (m³) | – | 30 150 |
| Sand-gravel mix (t) | 60 000 | – |

Table4-12: Estimated quantity of main materials

| Technical and economic indicators | Project option | Alternative option |
|---|----------------|--------------------|
| Freight trips for material delivery (units) | 16 900 | 3 150 |
| Estimated cost of pavement works (€) | 56 000 000 | 20 500 000 |
| Service life (years) | 15 | 25 |

Table4-13: Technical and economic indicators

The Diamond Grinding technology has already been applied in Moldova, with more than 220 000 m² of restored surfaces (for example, in Germany under ZTV Beton-STB 07, TG Merkblatt Texturgrinding FGSV-Nr. 828; NB Merkblatt FGSV-Nr. 829). Its advantages compared with the standard asphalt-overlay solution are summarized below.

| Indicators | Alternative option |
|---|----------------------|
| Environmental friendliness / carbon footprint | Below by 3–4 times |
| Transportation costs | Lower by 5.2 times |
| Accident rate | Lower by 3–4 times |
| Project implementation period | Shorter by 1.5 times |
| Service life of pavement | Higher by 1.7 times |
| Maintenance and repair costs | Lower by 25–30 % |
| Total cost | Below by 2.7 times |

Table4-14: Overview of advantages of the Diamond Grinding technology

Important:

The Diamond Grinding alternative is fully compliant with TEN-T policy under Regulation (EU) 2024/1679. A detailed field survey of existing pavement conditions is recommended to confirm the precise scope and cost of works and to integrate the alternative solution into final design and estimate documentation.

4.5.4. Summary of comparison

| Criteria | No-Project | Improvement of existing corridor | Other design and technical alternative (Preferred) |
|------------------------------|--|---|--|
| Technical feasibility | Low – progressive degradation | High – meets national standards | Very high – restores existing concrete structure using proven Diamond Grinding method |
| Environmental impact | Neutral to moderate (continued emissions from deteriorated road) | Low – reduced emissions and limited land take | Very low – carbon footprint 3–4× lower; minimal material use |
| Economic efficiency | Low – high transport and maintenance costs | High – lower fuel and travel time costs | Very high – total cost 2.7× lower; longer service life |
| Social benefits | Limited connectivity and safety | Improved access and regional integration | Highest – enhanced safety and comfort; accident rate 3–4× lower |
| Policy consistency | Not aligned with national transport strategy | Aligned with strategic priorities | Fully compliant with TEN-T Regulation (EU) 2024/1679 and green-transition goals |

Table4-15: Overview of the comparison of the different design and technical possibilities

Following the comparative analysis, the Diamond Grinding alternative is identified as the preferred design and technical solution for the M3 Road Rehabilitation Project.

It offers superior technical performance, lower environmental impact, and significant cost savings while fully aligning with EU TEN-T and climate-resilient infrastructure policy.

Implementation of this alternative is recommended for Lot 1 and may serve as a reference model for similar pavement rehabilitation projects in Moldova.

4.5.5. Lot 4 alternatives

M3 road Chisinau - Comrat - Giurgiulești - the border with Romania, km 211.98 - 213.69 and M3.1 Giurgiulești - border with Ukraine, km 0.0 - 0.65 (connection road of the state border crossing point Giurgiulești - Reni and Giurgiulești - Galați)

According to the traffic data and in compliance with the design standard NCM D.02.01:2024, the bypass road has been classified and designed as a Category III technical road. However, taking into account that the sections of road M3 Chișinău – Comrat – Giurgiulești – Romanian border (km 211.98 – 213.69) and M3.1 Giurgiulești – Ukrainian border (km 0.00 – 0.65) — which serve as connection roads between the Giurgiulești – Reni and Giurgiulești – Galați border crossing points — are located between two international border checkpoints, the traffic intensity is significantly influenced by heavy vehicles that travel at very low average speeds (< 3–5 km/h) or remain stationary for extended periods on certain sections while waiting to cross the border.

In accordance with the design assignment issued by the National Road Administration (NRA), the geometric elements of the road have been designed in compliance with the requirements of a Category III Road, but with four traffic lanes (2+2) in order to prevent road blockage caused by queuing / stationary heavy vehicles waiting at the border.

During the pavement structure design process, three pavement types were examined and presented to the Technical-Economic Council under the Ministry of Infrastructure and Regional Development. Following technical and economic analysis, the most reliable and cost-effective solution was adopted, in full coordination and agreement with the Beneficiary – State Road Administration.

Within the feasibility study and detailed design of road sections M3 (PC 2119+20 – PC 2136+90) and M3.1 (PC 00+00 – PC 06+80), four pavement structure variants were analyzed and dimensioned in accordance with the provisions of CP D.02.08-2014.

The table below provides a concise overview of the main technical characteristics of the variants, allowing a rapid comparison in terms of overall stiffness, fatigue resistance of asphalt layers, bearing capacity, and protection of the subgrade against shear failure.

| No. | Layer Name and Execution Material, Standards | Thickness Hstr. (cm) | Option I | Option II | Option III | Option IV |
|-----|--|----------------------|----------|-----------|------------|-----------|
| 1 | Wearing Course – stabilized asphalt concrete MAS16 rul., modified bitumen class 4 (pen. 45/80) acc. to CP D 02.25:2021 | 5 | + | + | + | — |
| 2 | Cement-treated layer C35/45 (XF4, XC4, XD1, XM2) S4.0, F6.5 acc. to SM EN 13877-1/2/3:2013 | 24 | — | — | — | + |
| 3 | Polyethylene joint sheet, min. 0.2 mm (incl. joint reinforcement and sealing) | — | — | — | — | + |
| 4 | Binder course BAD 22.4 leg., modified bitumen class 4 (pen. 45/80) acc. to CP D 02.25:2021 | 7 | + | + | + | — |

| No. | Layer Name and Execution Material, Standards | Thickness Hstr. (cm) | Option I | Option II | Option III | Option IV |
|-----|--|----------------------|-----------------|-----------------|-----------------|-----------------|
| 5 | Base layer – bituminous concrete with crushed stone AB 31.5, bitumen 50/70 acc. to CP D 02.25:2021 | 8 | + | — | — | — |
| 6 | Base layer – natural aggregates mixture stabilized with cement C5/6 acc. to SM EN 14227-1 | 16 | + | — | — | — |
| 7 | Base layer – natural aggregates mixture stabilized with cement C5/6 acc. to SM EN 14227-1 | 20 | — | — | + | — |
| 8 | Foundation layer – roller-compacted concrete RCC CCC20 (C20/25) acc. to CP D 02.01:2023 | 18 | — | — | — | + |
| 9 | Subbase layer – crushed stone fr. 31.5–63, LA30 acc. to SM EN 13285:2018 | 18 | — | + | — | — |
| 10 | Subbase layer – crushed stone fr. 31.5–63, LA30 acc. to SM EN 13285:2018 | 20 | — | — | + | — |
| 11 | Subbase layer – crushed stone fr. 31.5–63, LA30 acc. to SM EN 13285:2018 | 23 | + | — | — | — |
| 12 | Lower subbase layer – optimal crushed stone mix 0–63, LA30 acc. to SM EN 13242+A1 | 25 | — | + | — | — |
| 13 | Capping layer – optimal ballast mixture fr. 0–63 mm GA acc. to SM EN 13285:2018 | 20 | + | + | + | + |
| | Total pavement thickness H_{tot} (cm) | | 71 | 83 | 70 | 64 |
| | TOTAL COST (excluding VAT) – MDL/m² | | 1,570.65 | 1,948.28 | 1,715.79 | 1,609.01 |

Table 4-16: Overview of main technical characteristics

- Option I – Flexible asphalt structure, good balance (71 cm, cost 1,571 MDL/m²)
- Option II – Thickest flexible structure (83 cm), highest cost
- Option III – Most rigid flexible pavement (70 cm, highest E_{calc} = 473.68 MPa)
- Option IV – Rigid pavement with RCC (roller-compacted concrete) foundation (64 cm), lowest total thickness and very competitive cost.

Option I and option IV have been selected as the most advantageous from a technical and economic point of view, offering an optimal cost/performance ratio, high reliability, and the ability to respond effectively to various traffic conditions (including prolonged stationary periods at border crossing points). Both variants have been coordinated and approved by the Beneficiary – NRA.

- Giurgiulești Bypass (new road)

Within the feasibility study, two route alternatives were analysed; however, following discussions with the local public authorities and an analysis of the route alignment, the position described below was adopted. The road is located on a strip of land between the administrative territories of the villages of Cîșlița-Prut and Giurgiulești. The starting point of the Giurgiulești village bypass road is located at km 175+915 (according to the R34 road rehabilitation project) on road R34 Hâncești – Leova – Cahul – Giurgiulești, and it ends at the intersection with road M3 at km 10+580, in accordance with Project No. RBTC/W-SWEC-19/11 “RSP/W9/05 Construction of the M3 Slobozia Mare Bypass km 0+000 – km 18+290”.

From a regional development perspective, the road represents a starting point for the projects proposed by the Local Public Authorities, and the well-being of society and the level of satisfaction would increase considerably.

| No. | Layer name and execution material, standards | Thickness (cm) | Option I | Option II | Option III |
|-------------------------------------|---|-----------------|-----------------|-----------------|------------|
| 1 | Wearing course – stabilized asphalt concrete MAS16, modified bitumen class 4 (pen. 45/80) – CP D 02.25:2021 | 4 | — | — | + |
| 2 | Wearing course – stabilized asphalt concrete MAS16, modified bitumen class 4 (pen. 45/80) – CP D 02.25:2021 | 5 | + | + | — |
| 3 | Binder course BAD 22.4, modified bitumen class 4 (pen. 45/80) – CP D 02.25:2021 | 7 | + | + | + |
| 4 | Base course – bituminous concrete with crushed stone AB 31.5, bitumen 50/70 – CP D 02.25:2021 | 8 | + | — | + |
| 5 | Base course – natural aggregates mixture stabilized with cement C5/6 – SM EN 14227-1 | 16 | + | — | — |
| 6 | Lower base course – mixture stabilized with cement C5/6 – SM EN 14227-1 | 18 | — | + | — |
| 7 | Lower subbase – optimal crushed stone 0-63, LA30 – SM EN 13242+A1 | 18 | — | — | + |
| 8 | Lower subbase – optimal crushed stone 0-63, LA30 – SM EN 13242+A1 | 20 | + | — | — |
| 9 | Lower subbase – optimal crushed stone 0-63, LA30 – SM EN 13242+A1 | 23 | + | — | — |
| 10 | Lower subbase – optimal crushed stone 0-63, LA40 – SM EN 13242+A1 | 25 | — | — | + |
| 11 | Capping layer – optimal ballast mixture fr. 0-63 mm GA – SM EN 13285:2018 | 20 | + | + | + |
| Total pavement thickness, cm | - | 71 | 70 | 82 | |
| TOTAL COST (excluding VAT) | MDL/m² | 1,553.29 | 1,555.67 | 1,848.61 | |

Table 4-17: Analysis of the alternatives of the road structure for the Giurgiulești Bypass Project

Source: Construction of the bypass road of the village of Giurgiulești, Cahul district, L= 3.85 km (connection between M3 and R34 roads)

As a result of the technical-economic comparison of the road structure options for the Giurgiulești bypass section, the road structure Option I was adopted for execution.

5. Legal Requirements

5.1. Policy, legal and administrative context of the ESIA

This chapter outlines the national legal and institutional framework governing environmental and social impact assessment, road construction, and related permitting in the Republic of Moldova. It also summarizes the applicable international conventions and lender requirements relevant to the Project.

5.1.1. National strategies

The Project is aligned with Moldova's national development policy framework, which promotes environmental sustainability, infrastructure modernization, and EU integration objectives. It directly supports the implementation of several key strategic documents, including:

- National Development Strategy "European Moldova 2030" (GD No. 315/2022);
- National Mobility Strategy 2025–2030 (GD No. 589/2024);

- Environmental Strategy 2024–2030 (GD No. 409/2024);
- National Road Safety Programme 2025–2030 (GD No. 326/2025);
- National Regional Development Strategy 2022–2028 (GD No. 40/2022).

Other relevant national and sectoral strategies are presented in Annex 4. Together, these strategic documents anchor the M3 corridor works within Moldova's EU alignment and TEN-T connectivity agenda, while defining the design principles and ESIA compliance requirements that the Project must fulfil.

5.1.2. Regional and Local (District's) Development Strategies and Urban Planning Plans

The M3 Corridor rehabilitation is consistent with the regional and local development frameworks in the administrative districts traversed by the project—Chişinău, Ialoveni, Cimişlia, Comrat (Gagauzia ATU), and Cahul. Each of these territorial units has adopted strategies that prioritise improved road connectivity, safer transport, and access to markets and public services.

The main regional strategies in the South Development Region are the following:

- Sectoral Programme (PRS) in the field of water supply and sanitation (WSS);
- Integrated solid waste management strategy in the South Development Region;
- Regional Sectoral Programme (PRS) in the field of regional and local roads (DRL) in the South Development Region;
- Regional Sectoral Program for the Development of Business Support Infrastructures in the South Development Region;
- Regional sectoral program on increasing the tourist attractiveness of the South Development Region.

Chisinau municipality:

- Sustainable socio-economic and spatial development strategy of the municipality of Chisinau⁵;
- General Urban Plan of Chisinau city, from 27.07.20216;
- Chişinău Green City Action Plan⁷ (GCAP) – developed with support from EBRD, focused on sustainable mobility, energy efficiency, and environmental protection.

Ialoveni district:

- Integrated development strategy of Ialoveni district 2022-2027.

Cimislia district:

- Development Strategy of Cimislia district for the period 2022 – 2028 and the Action Plan for its implementation⁸;
- Development Strategy of the Cimislia municipality for the years 2020-20509 and the Action Plan for its implementation⁹.

⁵ <https://drive.google.com/file/d/1c6L8Bih1bcJtQoPvgHcdpQrykQVvMHP6/view>

⁶ <https://gislocal.md/?locale=ro#/viewer/14>

⁷ https://ebrdgreencities.com/assets/Uploads/PDF/GCAP_Chisinau-ENG.pdf

⁸ <https://raioncimislia.md/wp-content/uploads/2022/02/Strategia-de-Dezvoltare-a-raionului-Cimi%C8%99lia-2022-2028-anexa-proiectului-de-decizie-1.pdf>

⁹ <http://cimislia.md/upload/strategia-de-dezvoltare-comunitara-a-orasului-cimislia-pentru-anii-2020-2025-convertedpdf->

Cahul District

- Sustainable socio-economic development Strategy of the Cahul district (SDSE Cahul) for period 2023-2030¹⁰;
- EU4Cahul Urban Development Programme¹¹, aimed at modernising public services, digitalisation, and promoting cross-border cooperation;
- Regional Development Strategy South;
- Regional Sectoral Program in the Field of Water Supply and Sewerage in the SDR;
- Regional Sectoral Program in the Field of Solid Waste Management in the SDR;
- Regional Sectoral Program in the Field of Regional and Local Roads in the SDR;
- Integrated Development Strategy of Cahul District;
- Social and Economic Development Strategy of the Cahul Region 2023-2030;
- Climate Vulnerability Assessment for the "Prutul de Jos" Biosphere Reserve.

Comrat district (ATU Gagauzia)

- Regional Development Strategy ATU Gagauzia Development Region¹².

Cross-Border, Giurgiulești International Free Port and Danube Strategies

- Giurgiulești International Free Port (GIFP) Development Programme – strategic infrastructure hub for multimodal transport (river, maritime, rail, and road) and regional economic growth;
- Danube Region Strategy (EU Strategy for the Danube Region – EUSDR)¹³ – relevant for Giurgiulești as Moldova's only port on the Danube, enhancing cross-border trade, logistics, and environmental cooperation;
- Cross-Border Cooperation Programmes¹⁴ (CBC Romania–Moldova–Ukraine 2021–2027) – with a focus on connectivity, environment, and sustainable mobility, including potential projects for Giurgiulești.

Most of these strategies integrate aspects related to ecological status of natural resources, water and sanitation, cultural heritage, social development, industry competitiveness, infrastructure and transport networks, as well as climate resilience, green transition, and EU integration objectives.

Overall, the Project supports implementation of these regional and local priorities by improving accessibility, reducing travel times, and facilitating regional economic integration, while remaining consistent with approved spatial-planning and land-use frameworks.

Overall, the Project contributes directly to the achievement of the goals defined in the most relevant national, regional, and local development strategies. By rehabilitating the M3 corridor, the Project supports the Regional

[5f58d8b07ee95.pdf](#)

¹⁰ https://cahul.md/wp-content/uploads/2023/02/3.-Strategia-DSE_Cahul_2023-2030.pdf

¹¹ <https://eu4cahul.md/>

¹² https://www.adrgagauzia.md/public/files/ADR_UTAG/SDR_UTAG_2017-2020_RO.pdf

¹³ <https://www.euro-access.eu/en/macregions/eusdr#:~:text=The%20EU%2DStrategy%20for%20the,economic%2C%20social%20and%20territorial%20cohesion.>

¹⁴ https://ec.europa.eu/regional_policy/policy/cooperation/european-territorial/next_en

Development Strategy of the South Region and related sectoral programmes on road infrastructure, energy efficiency, and environmental protection through improved accessibility and safer transport. It aligns with the Chişinău Green City Action Plan by promoting sustainable mobility, reduction of vehicle emissions, and better integration with the public transport network.

At the same time, the Project strengthens the objectives of the EU Strategy for the Danube Region (EUSDR) and the Cross-Border Cooperation Programme Romania–Moldova–Ukraine 2021–2027, fostering connectivity, trade, and cross-border mobility. It contributes to the EU4Cahul Urban Development Programme and the Integrated Development Strategy of Ialoveni and Cimişlia, by enhancing access to markets, social services, and employment opportunities, thus reducing regional disparities.

The Project therefore represents a key investment supporting the implementation of Moldova's National Development Strategy "European Moldova 2030", advancing sustainable transport infrastructure, regional cohesion, and the country's gradual integration with the EU TEN-T Core Network.

5.2. Applicable IFI Environmental and Social Assessment procedures

The M3 Road Corridor rehabilitation is financed with the support of the European Bank for Reconstruction and Development (EBRD) and co-financed by other international partners. Consequently, the Project is subject to international environmental and social assessment procedures that complement national legislation.

EBRD Environmental and Social Policy (2019)

Under the EBRD Environmental and Social Policy (ESP 2019), the Project has been categorised as Category A, requiring a full Environmental and Social Impact Assessment (ESIA) due to its potential for significant, diverse, and site-specific impacts. The assessment follows the EBRD's Performance Requirements (PRs), which set out the standards that clients must meet:

| PR | Title | Relevance to the Project |
|-------|--|--|
| PR 1 | Assessment and Management of Environmental and Social Impacts and Issues | The ESIA identifies, evaluates, and mitigates all potential impacts during design, construction, and operation. |
| PR 2 | Labour and Working Conditions | Applies to contractors, ensuring fair employment, occupational health and safety, and workers' grievance mechanisms. |
| PR 3 | Resource Efficiency and Pollution Prevention and Control | Addresses emissions, waste, water, energy use, and raw-material efficiency during construction and operation. |
| PR 4 | Health, Safety, and Security | Covers protection of the workforce and surrounding communities. |
| PR 5 | Land Acquisition, Involuntary Resettlement, and Economic Displacement | Relevant for any temporary or permanent land take or access restrictions. |
| PR 6 | Biodiversity Conservation and Sustainable Management of Living Natural Resources | Ensures avoidance of sensitive habitats and species. |
| PR 8 | Cultural Heritage | Requires chance-find procedures and consultation with competent authorities. |
| PR 10 | Information Disclosure and Stakeholder Engagement | Implemented through the Project's Stakeholder Engagement Plan (SEP) and Grievance Redress Mechanism (GRM). |

Table 5-1: PRs to be met by the Client

Compliance with these PRs will be ensured through the Environmental and Social Management Plan (ESMP) and continuous monitoring during construction and operation.

If other International Financial Institutions participate (e.g. the European Investment Bank, the European Union, or the World Bank), their procedures will also apply, notably:

- EIB Environmental and Social Standards (2023);

- EU EIA Directive 2011/92/EU as amended by 2014/52/EU;
- World Bank ESF (2018) – Environmental and Social Standards 1-10.

These frameworks are largely consistent with EBRD Performance Requirements, and equivalence will be maintained through a single, harmonized ESIA package and coordinated disclosure process.

The NRA acts as the Implementing Agency and will ensure that the Project, contractors, and supervision consultants comply with all applicable IFI requirements and national laws.

All documentation, including the ESIA (full report), Scoping Document, Non-Technical Summary (NTS), Land Acquisition and Resettlement Framework (LARF), ESR Compliance Document (Environmental and Social Requirements Compliance Statement) and Environmental and Social Action Plan (ESAP), will be disclosed and consulted upon in accordance with EBRD PR 10 and Moldovan EIA regulations.

Where Moldovan legislation differs from EU substantive environmental standards, the Project is required to comply with the more stringent standard, including but not limited to:

- EIA Directive (2019 update);
- Industrial Emissions Directive;
- Birds and Habitats Directives.

As part of project preparation and implementation, the following assessments for Environmental and Social Assessments are required:

- Scoping Document: defines the initial scope, boundaries, and priorities of the Environmental and Social Impact Assessment. It identifies the key environmental and social issues that require detailed study, based on preliminary project information, site reconnaissance, stakeholder inputs, and review of national legislation and EBRD Performance Requirements.
- Environmental and Social Impact Assessment (ESIA): detailed evaluation of potential project impacts on air, water, soil, biodiversity, land use, cultural heritage, and communities, with corresponding management plans.
- Land Acquisition and Resettlement Framework (LARF): defines the principles, procedures, and institutional arrangements to be applied when a project may require land acquisition, restrictions on land use, or involuntary resettlement. It is prepared when the exact impacts and affected parcels are not yet fully known at the ESIA stage—common for early design phases in road rehabilitation projects.
- ESR Compliance Document (Environmental and Social Requirements Compliance Statement): aim to summarize how the proposed project complies with the Environmental and Social Requirements of the financing institution (e.g., EBRD) and relevant national legislation. It provides a concise, evidence-based mapping of the project's commitments, demonstrating that the design, construction, and operation meet the applicable Performance Requirements (PRs), sector guidelines, and Moldovan regulatory standards.
- Environmental and Social Action Plan (ESAP)- a binding implementation plan that outlines specific actions the project sponsor must undertake to achieve full compliance with the financier's Environmental and Social Policy (e.g., EBRD PRs) and national requirements. It translates the findings of the ESIA, LARF/LARP, stakeholder engagement, and due diligence into clear, time-bound, and measurable actions.

- **Road Safety Audit (RSA):**
 - Required by the EBRD as the Project involves road infrastructure with potential safety-related design characteristics.
 - Ensures that a comprehensive, independent and systematic technical road safety review is carried out for all tranches of road sections.
 - Aims to integrate technically and economically feasible, cost-effective road safety components into the design, to prevent and mitigate road safety risks for all categories of road users.

5.3. National and international regulatory framework, standards and guidelines, treaties applicable

5.3.1. National legislation on environment/biodiversity

For the purposes of the M3 Road Corridor Project, the most relevant legal requirements at the national level relate to:

- Environmental protection and Environmental Impact Assessment (EIA) procedures;
- Access to information and public participation, ensuring transparency and stakeholder engagement;
- Social, health, and safety regulations, covering both workers and the general public;
- Land acquisition and expropriation procedures, including compensation mechanisms;
- Construction permitting, including approvals required for design, construction, and operation.

The overarching legal basis for environmental governance is provided in the Law No. 1515/1993 on environmental protection, which establishes principles, institutional responsibilities, and the development of subordinate normative acts in the field of environmental protection.

Law No. 86/2014 on Environmental Impact Assessment transposes Directive 2011/92/EU of the European Parliament (13 December 2011) on assessing the effects of certain public and private projects on the environment. This law applies to all public and private projects, or specific categories of planned activities, that may have an adverse impact on the environment and human health.

Under this law, projects with significant impact on the environment must include an Environmental Impact Assessment (EIA) study, which identifies, describes, and assesses the direct and indirect effects of planned activities on population, fauna, flora, soil, subsoil, water, air, climate, landscape, material assets, and cultural heritage. The EIA procedure also requires mandatory public consultation and disclosure of relevant project information.

For the road sector, Annex 1 of Law No. 86/2014 lists projects requiring a mandatory EIA:

- Point 7(b): Construction of roads and expressways (“express road” as defined in the European Agreement on Main International Traffic Arteries, 15 November 1975).
- Point 7(c): Construction of roads with four or more lanes, or realignment/widening of existing roads with two or fewer lanes into four or more lanes, for sections of at least 10 km.

Annex 2 specifies projects for which the need for an EIA must be determined by the Environmental Agency, including public consultation. For the road sector:

- Point 10(e): Construction of main roads, ports, and port installations (not listed in Annex 1).

The Tranche 2 road sections were reviewed and consulted with the Environmental Agency of the Republic of Moldova. Based on the official decisions, a full national EIA was not required for Lots 1–4[^]

| Lot | Section Description | EIA Status / Permit |
|--|--|--|
| Lot 1 | Airport I/C – Porumbrei (rehabilitation of existing 2x2 lanes) | The Detailed Design prepared in 2014 obtained the State Ecological Expertise Approval, a permitting document authorizing the commencement of construction works under the legislation in force at that time. Given the subsequent changes in national environmental legislation, the updated project is now required to obtain a new Environmental Permit prior to construction. |
| Lot 2 | Porumbrei – Cimișlia (Phase II – widening from 2 to 4 lanes) | Environmental permits for the entire project (four-lane configuration) were obtained prior to the commencement of construction works for Phase I. |
| Lot 3 | Cimișlia – Comrat (rehabilitation 2 lanes) | It requires obtaining an Environmental Permit at this stage. |
| Lot 4 | Giurgiulești Bypass – new construction (2 lanes) | Environmental Permit No. 0191/566/2024 issued 28.10.2024. |
| Lot 4 (existing M3 and M3.1 sections) | Rehabilitation works | Environmental Permit No. 0191/401/2024 issued 15.07.2024. |

Table 5-2: Overview of the EIA Status of the different lots

Each Environmental Permit is valid for four years and may be extended once if environmental conditions remain unchanged. Compliance with permit conditions is monitored by the Environmental Protection Inspectorate, and violations may result in administrative or criminal liability.

The national legal framework provides a comprehensive and harmonized system for environmental protection, consistent with the EU acquis. Through compliance with these acts—particularly Law No. 86/2014 on Environmental Impact Assessment, Law No. 1515/1993 on Environmental Protection, and sector-specific laws on water, waste, and biodiversity—the Project ensures the prevention, mitigation, and monitoring of environmental impacts in line with Moldovan and international obligations.

Other relevant legislative acts include:

- Forest Code no. 69/2024;
- Land Code no. 22/2024;
- Law No. 11/2017 on strategic environmental assessment;
- Law No. 98/2022 on atmospheric air quality;
- Law No. 227/2022 on industrial emissions;
- Law on water No. 272/2011;
- Law No. 239/2007 on vegetal kingdom;
- Law No. 1538/1998 on the fund of natural areas protected by the state.

Additional environmental and biodiversity-related legislation relevant to the Project is listed in **Annex 2**.

5.3.2. Specific legal acts on transport, urbanism, construction, and public administration

The Project is regulated by a comprehensive set of national laws covering transport, road infrastructure, urban planning, construction, land acquisition, and public administration. These legal acts define institutional

responsibilities, procedural requirements, and technical standards necessary for the planning, approval, and implementation of national road infrastructure projects, including the M3 Corridor.

The key legislative instruments include:

- Road Transport Code No. 150/2014 – regulates the organization, licensing, and safety of road transport operations.
- Law on Road Traffic Safety No. 131/2007 – establishes measures to improve traffic safety, enforcement, and driver conduct.
- Law on Roads No. 509/1995 – defines the classification, ownership, management, and maintenance of public roads.
- Urban Planning and Construction Code No. 424/2023 – establishes procedures for spatial planning, urban zoning, building permits, and technical documentation for infrastructure projects.
- Law No. 488/1999 on Expropriation for Public Utility – regulates expropriation procedures, compensation, and valuation of land and property required for public infrastructure.
- Administrative Code No. 116/2018 – sets administrative procedures, competencies of public authorities, and principles of good governance.

These laws ensure that the Project complies with national standards for road safety, urban development, land acquisition, and public administration, supporting efficient and transparent implementation.

A more detailed list of relevant legislative acts, including additional sector-specific regulations, is presented in Annex 4.

Compliance with these instruments enables the Project to proceed lawfully within Moldova's integrated system of spatial planning, road management, and public-administration oversight, while maintaining alignment with EU and international lender requirements.

5.3.3. Specific legal acts on social aspect, health, and safety

The Project is subject to a comprehensive framework of national legislation covering labour relations, workers' rights, occupational safety and health (OSH), public health, insurance, and access to environmental information. These legal instruments establish the rights and responsibilities of employers and employees, set minimum safety standards, and regulate workplace and construction site conditions.

Among the most important legislative acts are:

- Labour Code of the Republic of Moldova, No. 154/2003 – defines employment relationships, workers' rights, conditions of work, and grievance procedures.
- Law on Mediation, No. 137/2015 – establishes mechanisms for resolving civil and employment disputes through mediation.
- Law on Security and Health at Work, No. 186/2008 – sets the responsibilities of employers and employees to ensure safe working conditions and compliance with OSH standards, in line with EU Directives (89/391/EEC).
- GD No. 906/2020 – minimum health and safety requirements for the use of personal protective equipment (PPE) by workers.

- GD No. 80/2012 – minimum health and safety requirements for temporary or mobile construction sites.
- Law No. 756/1999 on Insurance against Accidents at Work and Occupational Diseases – provides social insurance coverage and compensation mechanisms for work-related accidents.
- Law on State Supervision of Public Health, No. 10/2009 – establishes sanitary and hygiene standards for workplaces and construction sites.
- GD No. 1467/2016 – Regulation on Public Access to Environmental Information – guarantees access to environmental data and procedures for public information requests.

Additional sector-specific regulations on occupational safety, health, insurance, and public health are listed in **ANNEX 4**.

This legislation listed establishes Moldova's comprehensive framework for protecting workers, communities, and public health in all economic sectors, including large-scale infrastructure projects. It ensures lawful employment practices, safe working conditions, social insurance coverage, and the right of citizens to information and participation in environmental decision-making.

By implementing the Project in compliance with these laws, as well as with EBRD Performance Requirements 2 and 4 and relevant EU occupational safety directives, the National Road Administration (NRA) and contractors will guarantee that all activities are carried out under safe, fair, and transparent social and health-protection standards.

5.3.4. Technical normative acts regarding the environment and construction

Implementation of the M3 Road Corridor Project shall comply with the technical regulations and construction norms applicable in the Republic of Moldova. These documents establish the requirements for design, environmental protection, safety, and supervision of construction activities. The most relevant technical normative acts are presented in the following table:

| Normative Act ¹⁵ | Name |
|--|---|
| NCM A.07.02-2012 (and subsequent amendments) | Procedure for the elaboration, approval, and framework content of project documentation for constructions; main requirements and provisions for construction. |
| NCM A.07.03-2002 | Regulation on the monitoring of construction objectives by the project author. |
| NCM A.07.06:2016 | Composition and content of the "Environmental Protection" section in project documentation. |
| NCM A.08.02:2014 | Occupational safety and health in construction. |
| NCM D.02.01:2015 | Public road design |
| NCM B.01.05:2019 | Systematization and planning of urban and rural localities. |
| CP D.01.04-2007 | Determination of the main hydrological characteristics for calculation |
| CP D.01.05-2012 | Determination of hydrological characteristics for the conditions of the Republic of Moldova |
| CP D.01.06-2012 | Determination of permissible limits of harmful substances in surface flows (runoff) for the conditions of the Republic of Moldova |
| CP D.02.30:2023 | Regulations regarding environmental protection in the design, construction, modernization, rehabilitation and maintenance of roads |

Table 5-3: Overview of the normative acts

Compliance with these normative acts is the responsibility of the designers and project verifiers during the design phase, while the National Inspectorate for Technical Supervision serves as the central authority overseeing their implementation.

¹⁵ NCM - Normative in constructions from Moldova; CP - Practical code

5.3.5. EU Directives

The Republic of Moldova, as a signatory to the **EU–Moldova Association Agreement (2014)** and the **Energy Community Treaty**, is progressively harmonising its environmental, occupational health, and labour legislation with the EU *acquis communautaire*.

Key EU Directives and related policy instruments applicable to this Study, and considered during the preparation of the Environmental and Social Impact Assessment (ESIA) for the M3 Road Corridor Project, include:

- Directive 2009/147/EC (Birds Directive) – establishes measures for the protection, management, and control of wild bird species and their habitats.
- Directive 92/43/EEC (Habitats Directive) – sets up the Natura 2000 network and defines obligations for impact assessment of projects potentially affecting protected habitats and species.
- Directive 2011/92/EU as amended by Directive 2014/52/EU (EIA Directive) – provides the procedural basis for environmental impact assessment, public consultation, and decision-making.
- Directive 2008/98/EC (Waste Framework Directive) – establishes the waste hierarchy and principles for prevention, reuse, recycling, and recovery, including construction and demolition waste.
- Directive 2008/50/EC (Air Quality Directive) – sets limit values for air pollutants and measures for maintaining and improving air quality, relevant to construction emissions and traffic exhaust.
- Council Directive 92/57/EEC (Construction Sites Directive) – sets minimum safety and health requirements at temporary or mobile construction sites.
- Council Directive 89/391/EEC (OSH Framework Directive) – defines general principles of prevention and risk management for worker safety.
- Council Directive 89/656/EEC (PPE Directive) – establishes minimum requirements for the use of personal protective equipment at the workplace.

These directives provide the reference framework for the Project's environmental protection, waste management, occupational safety, and biodiversity conservation measures.

Where Moldovan legislation and EU directives differ, the more stringent provisions will be applied in accordance with EBRD Performance Requirement 1 and the principles of the EU–Moldova Association Agreement.

A more comprehensive list of relevant EU directives and related policy instruments is provided in **Annex 2**.

5.3.6. International treaties related to the environment

The Republic of Moldova is a Party to numerous multilateral environmental agreements that provide the international legal framework for environmental protection, sustainable development, and transboundary cooperation. These treaties form part of the legal context for the M3 Road Corridor Project and guide the principles of impact assessment, pollution prevention, biodiversity protection, and public participation applied in this ESIA.

Key international conventions include:

- Aarhus Convention (1998) – access to environmental information, public participation, and access to justice in environmental matters.
- Espoo Convention (1991) – environmental impact assessment in a transboundary context.
- Convention on Biological Diversity (CBD, 1992) – conservation and sustainable use of biological diversity.
- Convention on International Trade in Endangered Species (CITES, 1973) – protection of endangered flora and fauna.
- Ramsar Convention (1971) – protection of wetlands of international importance.
- UN Framework Convention on Climate Change (UNFCCC, 1992), Kyoto Protocol (1997), and Paris Agreement (2015) – climate-change mitigation and adaptation.
- Basel, Rotterdam, Stockholm, and Minamata Conventions – control of hazardous chemicals, waste, and pollutants.

These instruments underpin Moldova's environmental and climate commitments and are reflected in national legislation and institutional practice. The ESIA integrates their principles—particularly concerning transboundary assessment, access to information, biodiversity conservation, and climate resilience—into the Project's design and environmental-management framework.

A more comprehensive list of international treaties and agreements relevant to the Project is provided in **ANNEX 2**.

5.4. Approach to benchmarking

The benchmarking approach for the Moldova TENT-T Road Network Rehabilitation Project involves a structured comparison of the Project's design, environmental and social management measures, and road safety features against international best practices, relevant IFI standards, and similar road infrastructure projects. The objective is to ensure that the Project achieves optimal environmental, social, and technical outcomes while complying with applicable regulations.

Detailed benchmarking results, including comparative matrices and references to international standards, are presented in the Annex – Benchmarking Matrix and International Good Practice References. This annex provides the evidence base for the analysis summarised in this chapter.

Comparison with International Standards:

- The Project will be benchmarked against EBRD Performance Requirements (PRs 1–10), EU environmental directives (EIA Directive, Industrial Emissions, Birds and Habitats), and IFI good practice guidelines on road safety, environmental management, and social safeguards.
- Where Moldovan legislation is less stringent, the Project will adhere to the more rigorous international standards.

Analysis of Similar Projects:

- Road rehabilitation and upgrading projects in Moldova and neighbouring countries (e.g., Romania, Ukraine) are reviewed to identify best practices in environmental management, traffic safety, social mitigation, and stakeholder engagement.

Environmental and Social Management Benchmarking:

- Evaluation of planned mitigation measures, monitoring plans, and public consultation strategies against established international examples.
- Assessment of land acquisition, resettlement procedures, and labour practices to align with EBRD PRs 2 and 5.

Road Safety Audit Benchmarking:

- Design elements of all lots will be compared with international road safety standards to identify risks and ensure cost-effective, feasible safety measures.

6. Baseline Conditions

Baseline environmental and social conditions were established through a combination of desk review, field reconnaissance, and analysis of secondary data provided by the Environmental Agency, National Bureau of Statistics, State Hydrometeorological Service, and other competent authorities. The assessment covers the project's area of influence - defined as a corridor of approximately 500 m on each side of the existing M3 alignment and adjacent settlements potentially affected by construction or operational impacts.

The baseline reflects the most recent available datasets (2020–2024) and will be refined following field sampling conducted by MOLDAC-accredited laboratories (CSP Chişinău, Hînceşti, and Cahul) for air and noise parameters. The data collection and analysis comply with EBRD Performance Requirements 1 and 3, national legislation, and relevant EU directives (2008/50/EC on air quality, 2002/49/EC on noise, 2000/60/EC on water).

In line with the Technical Due Diligence (TDD) process, baseline information will be updated once verified traffic forecasts, final design drawings, and drainage details become available to ensure consistency between environmental data and engineering design.

In the context of this ESIA, the area of influence of the M3 Road, Tranche 2, is defined on the basis of the different components of the project, namely:

- the areas where the planned activities of the project will take place (project area, associated infrastructure and immediate surroundings); and
- more or less extensive areas that may be subject to direct and indirect impacts on the natural and human environment.

The area of influence varies according to project activities and environmental and social components.

| Component | Construction Phase | Operation phase |
|------------------------------|---|---|
| Air quality | 500 m from the access road and the construction site. | Approximately 5 km from the air emission point (localities during the road and Emerald cites areas) |
| Noise & Vibration | 0,5 km from the construction site | About 0,5km from noise sources (localities during the road and Emerald cites areas) |
| Biodiversity | Direct: 1 km in the immediate vicinity of Emerald sites areas and 500 m around the others project site. Indirect: in the air quality zone of influence (5 km). | Direct: 1 km in the immediate vicinity of Emerald cites areas and 500 m around the others project site. Indirect: in the air quality zone of influence (5 km). |
| Surface Water | Water body protection area – 500m | Water body protection area – 500m |
| Ground water | Aquifer beneath the project area. | Aquifer beneath the project area. |
| Cultural Heritage | Physical footprint of project and construction areas, villages of Băcioi, Răzeni, Porumbrei, Cimişlia, Ciucur Mingir and Giurgiuleşti | Physical footprint of project and construction areas, villages of Băcioi, Răzeni, Porumbrei, Cimişlia, Ciucur Mingir and Giurgiuleşti |
| Social | Residential areas – 2,0km Economic activities outside residential areas – 0,5km Residential Areas connected with M3 road with local road – 500m | Residential areas – 2,0km Economic activities outside residential areas – 0,5km Residential Areas connected with M3 road with local road – 500m |

Table 6-1: Area of influence of the Project

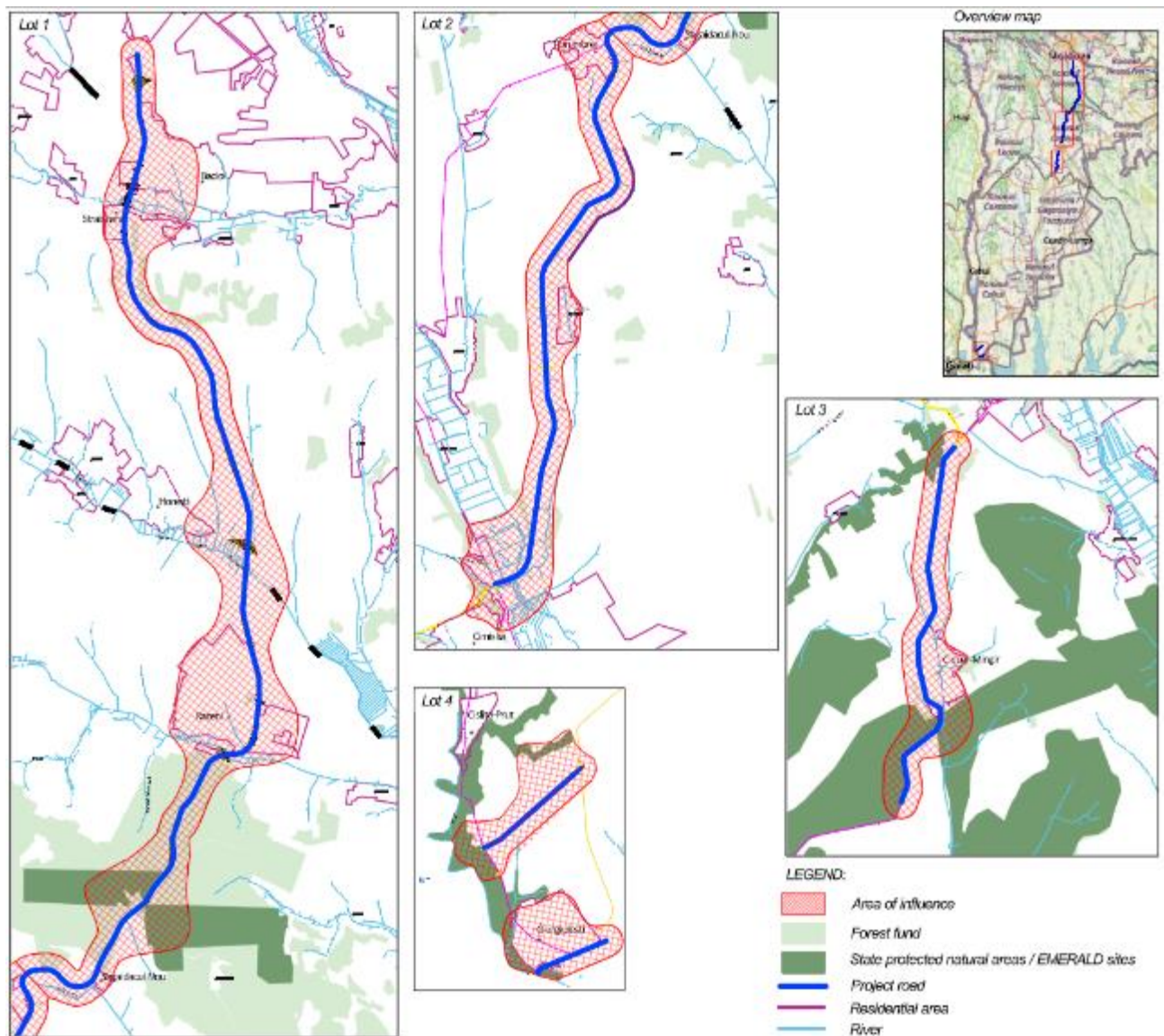


Figure 6-1: Project sites and area of influence

Methodology for Data Collection

- Review of project documentation and baseline data collection secondary to define scope, activities, and environmental/social context of the proposed.
- Field visits (August 2025) to verify conditions along all lots, identify potentially affected areas, and record environmental, biological, and socio-economic sensitivities;
- Analysis of national and regional datasets, thematic maps, and institutional reports to characterise soil, geology, hydrology, air quality, biodiversity, and socio-economic features.
- Stakeholder engagement and social screening (socio-economic baseline survey) to validate findings and ensure inclusion of community concerns.

The assessment of **soil and land surface conditions** relevant to the project was based on a combination of national databases, thematic maps, and institutional data sources. The following key sources and datasets was used:

- **Soil Information System** – “Soil Registry of the Republic of Moldova” (SI “RSRM”): Created under Government Decision No. 1001/2014 and managed by the National Agency for Land Improvement (ANIF). Provides comprehensive soil classification and cadastral data. Link: SI RSRM - Legis
- **IPOT Portal – General Soil Description and Mapping:** Offers interactive maps with detailed descriptions of soil types across the Republic of Moldova. Link: IPOT Soil Maps
- **Geospatial Data Portal of Moldova:** Includes thematic layers: cadastral maps, land use, elevation, geology, soil types, ecological network core zones, archaeological sites, topography, public infrastructure, etc. Link: GeoData Moldova
- **Regional, District, and Local Development Strategies (incl. Urban General Plans - PUGs):** These documents provide contextual data on planned land use, territorial development priorities, and zoning regulations. A list of these strategies is provided in the “Legal and Institutional Framework Analysis” Report.
- **Environmental Monitoring and Laboratory Data:** Collected and maintained by the Environmental Agency of Moldova, including information on soil quality, contamination, and physical-chemical characteristics.
- **Land Acquisition and Expropriation Procedures:** For lands subject to expropriation, cadastral numbers and soil fertility classification (bonitatea solului) are established exclusively by IPOT. The procedure is coordinated by central government bodies (Ministry of Infrastructure and Regional Development – MIDR, and the National Road Administration – AND) through inclusion of affected land parcels in a Government Decision (GD). According to legislation, road sectors must be declared of public utility prior to expropriation.
- **CORINE Land Cover (CLC) Dataset:** A digital database describing land cover and land use in Moldova, developed in accordance with standardized CORINE methodology to ensure EU-wide data harmonization. CLC classification includes 44 land cover classes, grouped in a 3-level hierarchy. In Moldova, 23 of these classes are present.
- **Soil Erosion Database Thematic dataset** covering erosion levels on agricultural land, categorized as follows: Non-eroded soils, Slightly eroded soils, Moderately eroded soils, Severely eroded soils, Combinations of erosion levels (e.g., slightly and moderately eroded).

The **geological and hydrogeological baseline** for the assessment was developed using multiple official sources and datasets, including national geoscientific databases and regional/local planning documents. The main data sources include:

- Geological Data from the State Subsurface Information Fund. Managed by the Agency for Geology and Mineral Resources (AGRM), this fund includes geological, hydrogeological, and mineral resource data. Link: [AGRM](#).
- Geological sections of Quaternary deposits. Link: [AGRM portal](#)
- Land Stability and Landslide Risk. Historical analysis of landslide distributions in Moldova from 1966–2008, based on geological and geomorphological monitoring. This is critical for assessing terrain stability, especially in areas where road infrastructure is planned on or near slopes.

The analysis of **surface and groundwater resources** for the Project are relied on multiple national databases, regulatory plans, and monitoring networks. These sources provide key information on the hydrological, hydrographic, and water quality characteristics of Moldova's river basins and sub-basins.

- **River Basin and Watercourse Cadastre.** Interactive online platform managed by the Agency for Water Resources Management (Apele Moldovei), offering GIS-based layers of hydrographic basins and river networks in Moldova. Link: [River Basin Cadastre Map](#)
- **Water Quality Monitoring Data.** Laboratory and monitoring data collected by the Environmental Agency, under the coordination of Apele Moldovei. Link: [Agency website](#)
- **Hydrological Monitoring Network (NMHS).** Operated by the State Hydrometeorological Service (SHS), the National Hydrological Monitoring Network (RNMH) currently consists of 56 hydrological posts and 2 hydrological stations. Link: [Hydrological Monitoring Overview \(PDF\)](#), [Interactive Hydrology Network Map](#)
- **River Basin Management Plans (RBMPs).** Approved legal documents outlining the hydrological planning and management framework for Moldova's main hydrographic districts:
Nistru River Basin Management Plan – Cycle II (2025–2030), approved by GD No. 70/2025;
Danube–Prut and Black Sea District Management Plan – Cycle II (2023–2028), approved by GD No. 444/2022.
- **Public Health and Drinking Water Quality Data.** Data from accredited laboratories under the National Agency for Public Health (NAPH) and its regional Public Health Centres, for water intended for human consumption. Link: [ANSP website](#). Additional testing of groundwater from wells and springs is conducted by the State Enterprise “Hydrogeological Expedition of Moldova”. Link: [EHGeoM laboratory services](#);
- **Legal Framework on Hydrographic Districts.** Government Decision No. 775/2013, based on Law No. 272/2011 (Water Law), officially defines the boundaries of Moldova's two main hydrographic districts: Prut and Nistru. Within these, four main river basins are distinguished: Danube, Black Sea, Prut, and Nistru, and subdivided into 39 hydrographic sub-basins. Link: [Map of Hydrographic Sub-basins](#)

The assessment of **air quality and climate**-related risks for the project are rely on national datasets, monitoring reports, and policy documents aligned with Moldova’s commitments to climate adaptation and environmental protection.

- **National Climate Adaptation Program.** Moldova’s National Adaptation Program to Climate Change until 2030, approved by Government Decision No. 624/2023, outlines national objectives, strategic directions, and sector-specific adaptation measures.
- **Air Quality Bulletins and Maps** – Environmental Agency. The Environmental Agency publishes daily air quality bulletins and maps, reporting the levels of key pollutants. Link: [Daily Air Quality Bulletins and Maps](#)
- **State Hydrometeorological Service (SHS) – Climate Data.** SHS maintains a comprehensive database of long-term climate characterizations, trends, and forecasts. These are used to evaluate climate variability, extreme weather patterns, and future projections relevant to infrastructure resilience. Link: [Climatic Characterizations – SHS](#);
- **Real-time Air Quality Monitoring** – Chişinău and Other Urban Areas. The Air Quality Index (AQI) visual map provides real-time data on air pollution in Chişinău and surrounding urban areas. It can help assess population exposure in sensitive zones. Link: [Chişinău AQI Real-Time Map](#)
- **Laboratory Data from the Environmental Agency’s Air Quality Laboratory.** The Air Quality Laboratory of the Environmental Agency conducts continuous monitoring and periodic assessments of pollutant concentrations across the country. Link: [Environmental Status Reports – Air Quality](#)

- **Regional and Local Planning Documents.** Regional development strategies, district and municipal development plans (including General Urban Plans – PUGs) may contain air pollution sources, local climate adaptation strategies, or sensitive receptors. These are listed in the Legal and Institutional Framework Analysis Report.

The assessment of **biodiversity and natural habitats** within the project area are based on multiple national and international data sources, including official cadastres, databases on protected areas, and geospatial information related to ecological networks and forest resources.

- **Cadastre of State-Protected Natural Areas.** The Cadastre of State-Protected Natural Areas (ANPS) is the official GIS-based platform that provides spatial data on all designated protected areas in Moldova, including national parks, nature reserves, natural monuments, and Ramsar sites. Link: [Protected Areas Cadastre Map](#)
- **Protected Areas Database – State Natural Protected Areas Fund (FANPS).** The COC database (Catalog of Objects and Complexes) includes detailed descriptions, zoning, management objectives, and legal status of protected areas listed in the Fund of State-Protected Natural Areas (FANPS). Link: [Download database \(PDF/Google Drive\)](#)
- **Emerald Network Sites (Bern Convention).** Moldova is part of the Emerald Network, a pan-European ecological network established under the Bern Convention. The network includes designated sites important for the conservation of endangered species and habitats. Project screening will include verification of proximity to Emerald sites and assessment of potential direct or indirect impacts. Link: <https://emerald.eea.europa.eu/>;
- **Natura 2000 network.** Although the Natura 2000 network does not directly apply within Moldova, it is highly relevant due to the transboundary nature of ecosystems and proximity of the M3 and R7 road corridors to Natura 2000 sites in Romania. These include Sites of Community Importance (SCI) and Special Protection Areas (SPA) designated under the EU Habitats and Birds Directives. Cross-border ecological effects will be considered in the ESIA, especially regarding habitat connectivity, species migration corridors, and potential disturbance to avifauna and aquatic habitats along the Prut River and other border zones. Link: <https://natura2000.eea.europa.eu/>;
- **Forest Fund (Fondul Forestier).** Data regarding the national Forest Fund will be obtained through the Agency for Forestry “Moldsilva” and geospatial portals. The fund includes both public and private forested lands and afforestation zones. Forest classifications, protection roles (e.g. protective belts, erosion control), and management status will be considered in impact assessment and compensation planning if relevant. Link: [Forest Fund Cadastre](#).

The **socio-economic baseline** assessment was developed using a combination of national statistics, cadastral information, local planning documents, primary data collection as per Category A requirements to characterize the human environment within the project’s area of influence. This included an analysis of demographic trends, land use, economic activities, public infrastructure, vulnerable groups, and social services.

- **National Statistics Database.** Socio-economic reference conditions will be established using detailed data from the National Bureau of Statistics of the Republic of Moldova (NBS). The NBS provides datasets

on population dynamics, employment, education, health, poverty levels, household income, and other key development indicators. Link: [NBS Statistical Domains](#)

- **Regional, District, and Local Development Strategies.** Regional and local development strategies provide valuable information on current socio-economic conditions, development priorities, and planned investments in infrastructure, public services, and environmental protection. These strategies will support the identification of potentially affected communities and socio-economic vulnerabilities.
- **Cadastral and Land Ownership Data.** Public and private land ownership, land use types, and land tenure status will be assessed using the national Real Estate Registry (eCadastru) managed by the Agency for Public Services. Link: Cadastral Property Registry;
- **Urban and Spatial Planning Documents (PUGs).** General Urban Plans (PUGs) and related territorial development documents provide insights into local zoning, permitted land uses, infrastructure layout, public service distribution, and designated protected zones (e.g., green belts, floodplains). These documents will be referenced in the Legal and Institutional Framework Analysis Report and used to align the project design with spatial development policies.
- **Social Screening and Stakeholder Engagement.** The ESIA process includes public consultations and stakeholder mapping to ensure local communities, landowners, businesses, and other relevant parties are informed and consulted. Particular attention will be given to identifying potential impacts on vulnerable groups, such as low-income households, elderly persons, women-headed households, and communities with limited access to public services.

6.1. Air emissions

Air-quality challenges in the Republic of Moldova are concentrated mainly in urban areas and along heavily trafficked corridors. Chişinău, the capital, remains the country's most urbanised and economically active centre and therefore the area with the highest air-pollution levels.

The table below presents the evolution of air pollutants emitted by road transport in Moldova between 2016 and 2024, expressed in thousands of tons.

| | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|-----------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Polluting substances-total | 166.0 | 269.0 | 198.1 | 163.8 | 148.7 | 172.1 | 165.9 | 166.6 | 178.4 |
| Carbon oxide (CO) | 116.1 | 225.9 | 142.6 | 106.4 | 95.0 | 112.4 | 105.6 | 107.7 | 114.3 |
| Nitrogen oxide (NO2) | 17.3 | 28.1 | 23.1 | 25.0 | 23.4 | 26.0 | 26.4 | 25.6 | 28.0 |
| Sulfur dioxide (SO2) | 4.6 | 6.6 | 6.3 | 7.7 | 7.3 | 7.8 | 8.2 | 8.0 | 8.7 |
| Hydrocarbons | 18.3 | 29.5 | 20.5 | 18.2 | 16.6 | 19.1 | 18.6 | 18.5 | 19.9 |
| Other | 9.7 | 5.9 | 5.6 | 6.5 | 6.4 | 6.8 | 7.1 | 6.8 | 7.5 |

Table 6-2: Polluting substances emitted in atmospheric air by road transport, thousands of tons

Source: © 2025. National Bureau of Statistics

The data indicate a **general upward trend in total emissions from road transport**, driven primarily by carbon monoxide and nitrogen dioxide. This trend underscores the importance of integrating air quality considerations into road infrastructure planning, including for projects like the M3 Road Corridor.

The Project roads pass near several settlements, with sensitive receptors located in close proximity to the road in these areas.

No air quality measurements were conducted during the design stage of the Project to determine baseline conditions in human settlements, near the closest residential buildings, or to identify potential mitigation measures.

Seasonal variations are evident: slightly higher pollutant concentrations occur in winter (heating season, thermal inversions), while spring–summer (April–August) typically show very good air quality.

The M3 Chişinău – Comrat – Giurgiuleşti road corridor (Tranche 2 of the TEN-T rehabilitation project) crosses areas lacking permanent air-quality monitoring. The nearest fixed station—around 3.5 km from the start of Lot 2 (Porumbrei–Cimişlia)—cannot accurately characterise local background concentrations.

The Air Quality Laboratory (LCAA) under the National Reference Laboratory for the Environment manages Moldova’s monitoring network of eight fixed stations (six in Chişinău, two in Bălţi). Samples are collected three times daily (07:00, 13:00, 19:00) and analysed for TSP, SO₂, CO, NO₂, with additional parameters such as soluble sulphates, nitric oxide, phenol, and formaldehyde. Real-time data are published on the national Air-Quality Index (AQI) platform.

Historical data (2023-2025) from the air-quality monitoring station on Sarmizegetusa Street (Chişinău) show generally good to very good conditions.

- about 64 % of monitored days fall within the “very good” category (PM_{2.5} 0–25 µg/m³);
- 26 % are “good” (25–50 µg/m³);
- only 10 % register moderate values (50–75 µg/m³).
- occasional exceedances (100–150 µg/m³) are associated with unfavourable meteorological conditions or temporary local sources.

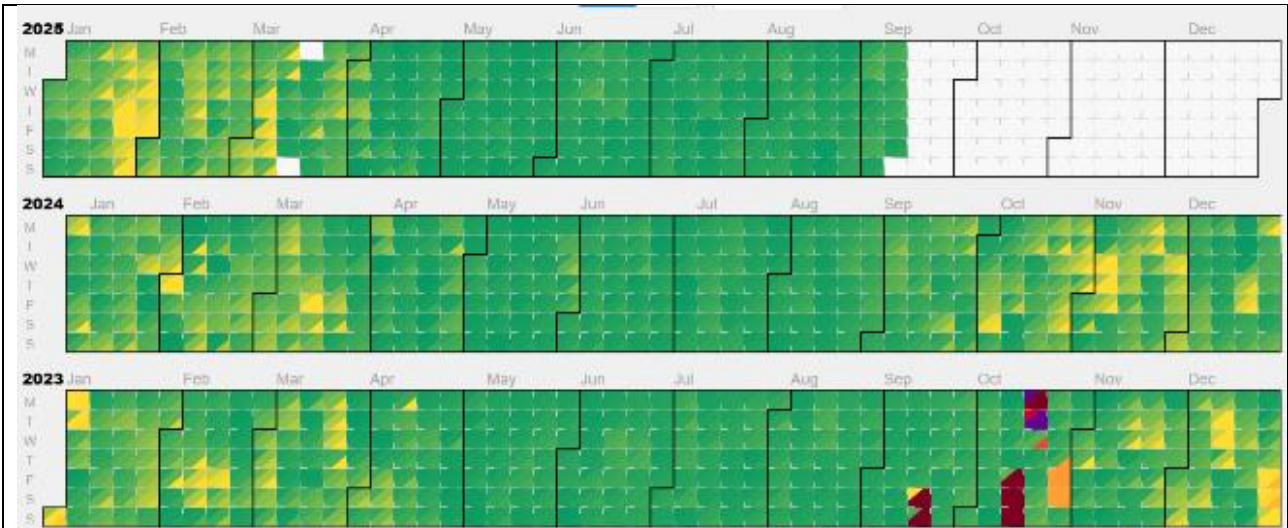
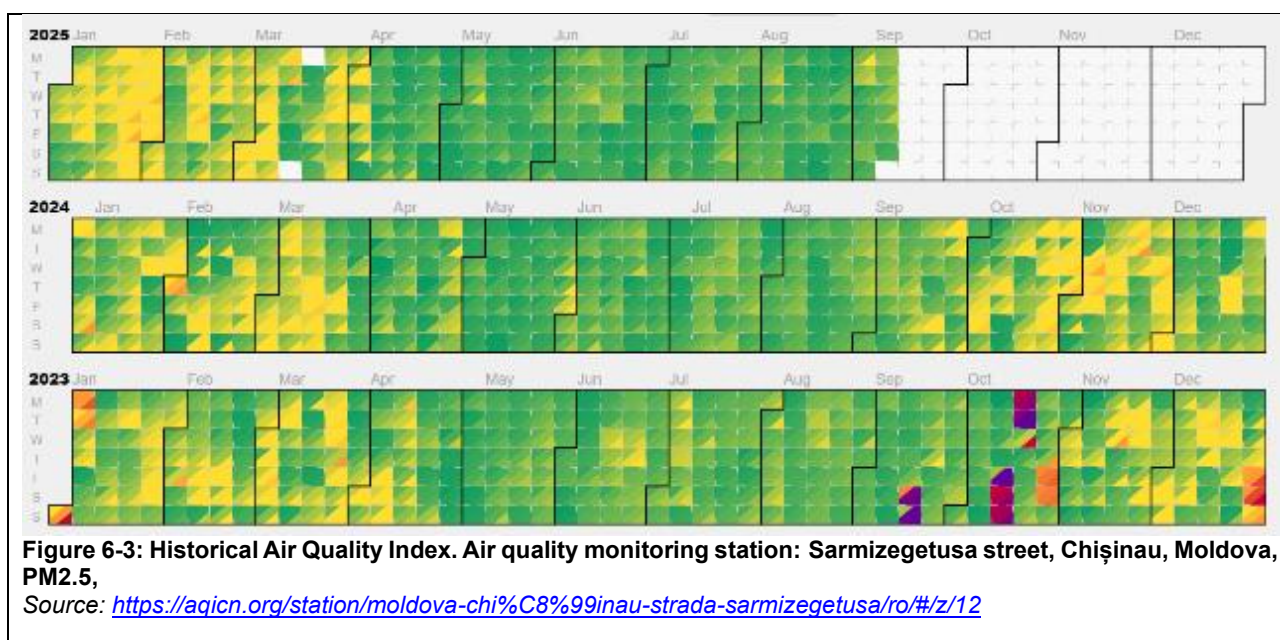


Figure 6-2: Historical Air Quality Index. Air quality monitoring station: Sarmizegetusa street, Chişinău, Moldova, PM10



In the Giurgiuleşti area, potential cumulative impacts arise from the Giurgiuleşti International Free Port (PILG), which hosts about 40 economic operators. Air-quality monitoring within the port is performed by ÎCS Danube Logistics SRL, the general investor and operator. Other local emission sources include the passenger port and railway station.

Air Quality Monitoring

To establish the initial state of abiotic environmental factors, within the framework of the Environmental and Social Impact Assessment (ESIA) study, a dedicated monitoring campaign was conducted. This campaign provided a clear and detailed picture of the existing conditions in the project's area of influence. This stage is a fundamental element, essential both for the accurate assessment of potential impacts generated by the road infrastructure works and for the proper foundation and effective implementation of protection measures and subsequent monitoring of abiotic factors.

Air quality monitoring was carried out at 10 locations situated in the immediate vicinity of the M3 road. These locations were selected based on GPS coordinates and are graphically represented on the map as monitoring points (see **Figure 6-4**). The distribution of the points is as follows:

- 2 points in Giurgiuleşti village;
- 1 point on the Giurgiuleşti bypass road (in proximity to the “Prutul de Jos” Nature Reserve);
- 1 point near the Emerald site “Pădurea Moleşti–Rezeni”;
- one point each in the localities of Cimişlia, Ciucur-Mingir, Porumbrei, Sagaidacul Nou, Răzeni, and Băcioi.

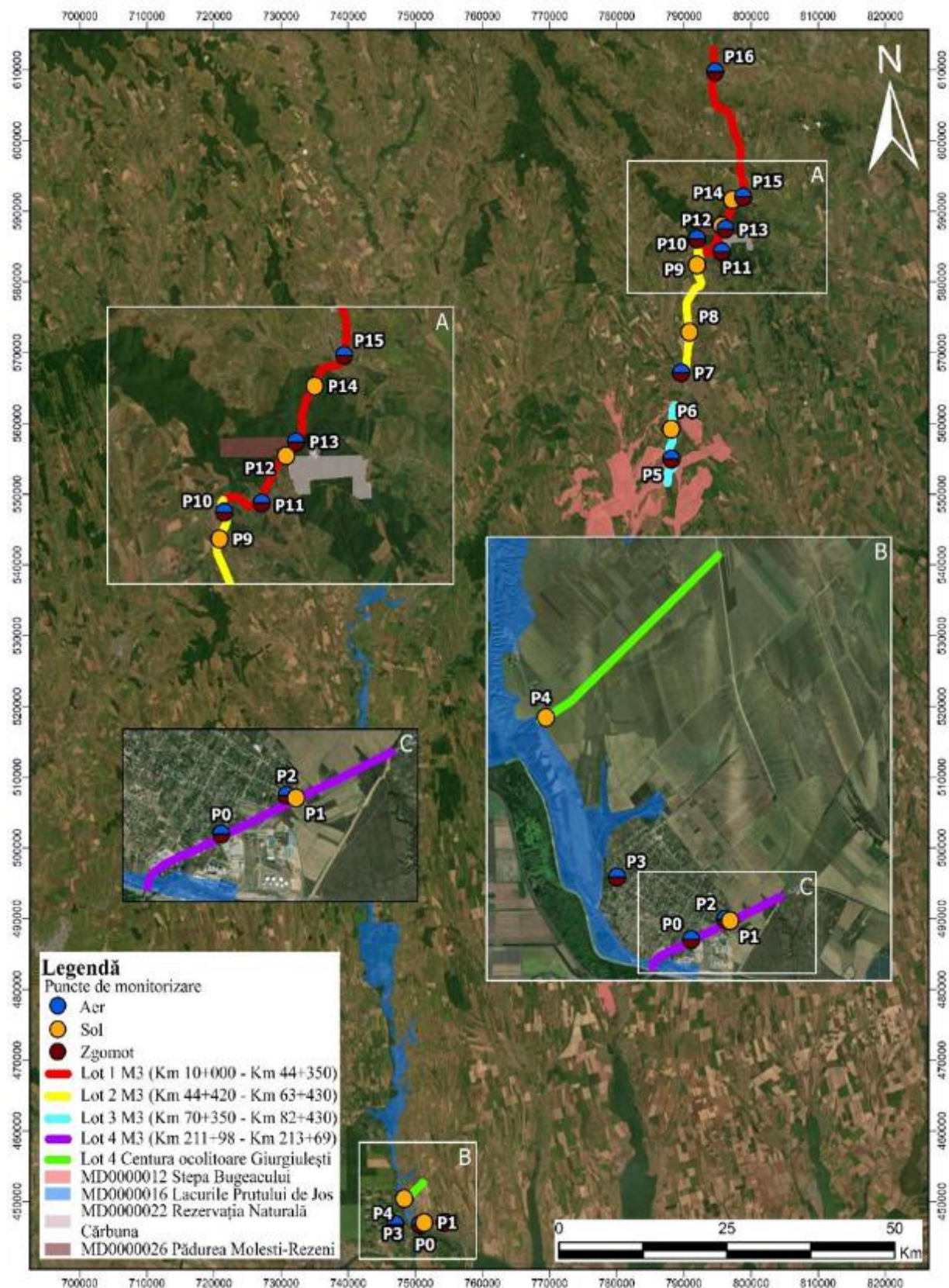


Figure 6-4: Location of environmental monitoring points

The laboratory analysis results for gaseous pollutant immissions (SO_2 , NO_2 , NO , CO , CH_4) and suspended particles ($\text{PM}_{2.5}$, PM_{10} , and total dust) are recorded in the test reports nos. 1037–1039, 1056–1058, and 1109–1112, issued on 25 February 2026. These documents are annexed to the monitoring report prepared by

GHOSTUD SRL (Romania).

The evaluation of the data obtained by the team of experts demonstrates that all measured values for the monitored atmospheric pollutants fall below the maximum allowable limits established by the national legislation in force, namely Law No. LP98/2022 on ambient air quality (which partially transposes EU Directives 2008/50/EC and 2004/107/EC). The full details of the results—including average values, maximum values, and comparisons with limit values—are comprehensively presented in Annex 5 of the report.

This favorable initial state of ambient air quality confirms a low level of background pollution in the project area prior to the start of major works. It provides a solid baseline for tracking the evolution of environmental factors throughout the implementation of the M3 Chişinău – Giurgiu-leşti – border with Romania national road rehabilitation and extension project.

Air quality parameter monitoring during the construction phase of a similar project.

As part of the Slobozia Mare Bypass Road Construction project, air quality monitoring was conducted to assess concentrations of atmospheric pollutants in areas potentially affected by construction works and to verify compliance with national air quality standards. The measurements were carried out in October 2022 by the Cahul Public Health Center (CSP Cahul) at the request of the Contractor.

Air samples were collected at the four representative locations: The concentrations of the measured substances in ambient air (mg/m^3), are presented in the table below:

| Pollutant | Point 1 (Giurgiu-leşti) | Point 2 (Câşliţa- Pruţ, construction site) | Point 3 (Câşliţa- Pruţ, borrow pit) | Point 4 (Giurgiu-leşti, borrow pit) | CMA/Maximum Allowable Concentration (mg/m^3) |
|--|----------------------------|---|--|---|---|
| Carbon monoxide | 4,8 / 4,4 | 1,6 / 1,5 | 2,8 / 2,6 | 1,6 / 1,7 | 5,0 |
| Sulphur dioxide | 0,02 | 0,04 | <0,02 | 0,03 | 0,2 |
| Nitrogen dioxide | <0,02 | 0,03 | 0,03 | 0,01 | 0,2 |
| Formic aldehyde | 0,016 / 0,017 | <0,004 | <0,004 | 0,002 | 0,01 |
| Total suspended particulates (PM _{total}) | 3,40 / 3,60 | 0,088 / 0,105 | 0,224 / 0,339 | 1,575 / 1,498 | 0,5 |

Table 6-3: Overview of the results of air samples; Source: Cahul Public Health Center

TableNote: The CMA values are established in accordance with the national Hygienic Norms and Requirements for Air Quality, approved by GD No. 125/2019 and subsequent amendments.

Most monitored pollutants (CO , SO_2 , NO_2 , and formic aldehyde) remained below the national maximum allowable concentrations (CMA) at all measurement points. The exception was total suspended particulates (PM total), which exceeded the allowable limits at points 1 and 4, indicating localized impacts from construction activities, including heavy traffic on unpaved roads and material storage operations.

The results suggest that while gaseous pollutants remain within acceptable limits, additional dust control measures (such as watering roads and covering of material stockpiles) are necessary to minimize particulate dispersion in areas adjacent to construction sites.

These results are considered representative of air quality conditions in the southern section of the M3 corridor, particularly around Giurgiu-leşti, where similar land-use patterns, construction activities, and traffic volumes

occur. Therefore, they provide a relevant baseline reference for assessing potential dust and particulate impacts during the implementation of the M3 Road Rehabilitation Project.

6.2. Noise and vibration

Road traffic is a major source of environmental noise and ground vibration. Noise arises from tyre-road contact, aerodynamic effects, and engine operation; its intensity fluctuates with traffic volume, speed, and driving behaviour. Vibration results primarily from dynamic wheel–pavement interaction and construction activities. Sensitive receptors include residents and public institutions located near the road alignment. Long-term exposure may affect health and comfort, while vibration may cause structural fatigue or minor damage to nearby buildings.

Residential buildings and other sensitive receptors identified along sections of the M3 corridor that pass through or are located near residential areas, situated at a distance of up to 100 m from the roadway, are presented in Table 6-4.

| Section | Position | Length (m) | Locality | Existing Soundproofing |
|---------|---------------------------|------------|------------------------|------------------------|
| 1 | KM 12+680 - KM 13+950 LS | 1260 | Băcioi village | No |
| 2 | KM 14+570 - KM 15+430 RS | 860 | Băcioi village | No |
| 3 | KM 14+610 - KM 14+880 LS | 342 | Băcioi village | No |
| 4 | KM 31+470 - KM 33+30 RS | 1830 | Răzeni village | No |
| 5 | KM 32+460 - KM 32+740 LS | 280 | Răzeni village | No |
| 6 | KM 41+753 - KM 42+77 LS | 820 | Sagaidacul Nou village | No |
| 7 | KM 44+530 - KM 45+680 RS | 1150 | Porumbrei village | No |
| 8 | KM 76+000 - KM 79+150 LS | 3150 | Ciucur Mingir village | No |
| 9 | KM 78+500 - KM 79+150 RS | 650 | Ciucur Mingir village | No |
| 10 | KM 211+870- KM 212+900 RS | 1030 | Giurgiuleşti village | No |

Table 6-4: Residential area near the Project road, 100m

The densest clusters of receptors are found in Ciucur Mingir (Sections 8–9, ~3.8 km) and Răzeni (Sections 4–5, ~2.1 km). These areas may require noise-mitigation measures - sound barriers, low-noise pavement, or vegetation buffers - depending on the results of noise modelling. The assessment follows Directive 2002/49/EC on Environmental Noise and national standards NCM E.04.02-2014 “Protection Against Noise” and SN 2.2.4/2.1.8.562-96. Permissible limits for equivalent continuous noise levels are shown in Table below.

| The object of protection | During the day, dBA (07.00 – 23.00) | | During the night, dBA (23.00 – 07.00) | |
|---|--|----|--|----|
| | 55 | 70 | 55 | 70 |
| Territories adjacent to polyclinic buildings, schools, other educational institutions, preschool institutions, recreation grounds of microdistricts and housing construction groups | 55 | 70 | 55 | 70 |
| Territories adjacent to residential buildings, rest houses, boarding houses, for the elderly and the disabled. | 55 | 70 | 45 | 60 |
| Living rooms of rest houses, their pensions, houses – boarding schools for the elderly and disabled, sleeping rooms of pre-school institutions and schools – boarding school | 40 | 55 | 30 | 45 |

Table 6-5: Permissible limit of equivalent noise level

Traffic and construction equipment generate vibration transmitted through the pavement and subgrade to surrounding structures. Vibrations may be:

- continuous (steady traffic flow),

- intermittent (passing heavy vehicles), or
- impulsive (construction machinery).

Potential effects include structural fatigue of nearby buildings and discomfort to residents. Since the analysed road sections correspond mainly to existing alignments, vibration impacts during operation are expected to remain similar to current conditions, provided pavement surfaces are maintained in good technical state.

Ambient-air quality in the project region is generally good, though data coverage outside major cities is limited. Noise and vibration represent the primary local-scale issues, particularly where settlements lie close to the roadway.

Noise Levels Measured in the Project Area

Within the Environmental and Social Impact Assessment (ESIA) study for the project “Rehabilitation and Extension of the National Public Road M3 Chişinău – Giurgiuleşti – Border with Romania”, a noise monitoring campaign was carried out in February 2026 by GEOSTUD SRL (Romania) to establish the initial (baseline) state of the environmental factor “noise and vibrations”.

Measurements were performed at **10 representative points** located near the M3 road axis and sensitive receptors (residential buildings, schools, protected areas), reflecting the current conditions predominantly influenced by existing traffic.

The monitoring was conducted in accordance with **NCM E.04.02:2014**, **SR 6161-1:2022**, and **SR ISO 1996-1:2016 / 1996-2:2018**. The equivalent continuous A-weighted sound pressure level (Leq,A) during daytime was determined in dB(A), with the admissible limit of **55 dB(A) daytime** and **70 dB(A) nighttime** for residential areas.

The results – Leq values, GPS coordinates, and comparison with limits – are presented in the table below. These data serve as the reference baseline for assessing additional impacts from construction works and future traffic, as well as for defining noise mitigation measures in the Environmental and Social Management Plan (ESMP).

| No. | Monitoring / Measurement Point | Noise Level (Equivalent Continuous Sound Pressure Level) - Leq [dB] | GPS Coordinates | Noise Limit [dB] |
|-----|--|---|--------------------------------|------------------|
| 1 | Near private dwelling, Sportivă Street, Giurgiuleşti village, Cahul District, Republic of Moldova – at monitoring point P0 | 52.45 | 45°28'31.91"N 28°12'19.89"E | 55 / 70 |
| 2 | Near private dwelling, Ion Creangă Street, Giurgiuleşti village, Cahul District, Republic of Moldova – at monitoring point P2 | 52.78 | 45°28'41.19"N 28°12'45.70"E | 55 / 70 |
| 3 | Near private dwelling, Giurgiuleşti village, Cahul District, Republic of Moldova – at monitoring point P3 | 52.19 | 45°29'04.40"N 28°11'26.67"E | 55 / 70 |
| 4 | Near Ciucur-Mingir Gymnasium, Ciucur-Mingir village, Cimişlia District, Republic of Moldova – at monitoring point P5 | 66.26 | 46°25'59.38"N 28°44'57.47"E | 55 / 70 |
| 5 | Near private dwelling, Cimişlia town, Cimişlia District, Republic of Moldova – at monitoring point P7 | 67.03 | 46°32'31.40"N 28°46'31.28"E | 55 / 70 |
| 6 | Near private dwelling, Doina şi Ion Aldea Teodorovici Street, Porumbrei village, Porumbrei Commune, Cimişlia District, Republic of Moldova – at monitoring point P10 | 67.78 | 46°41'25.40"N 28°49'12.13"E | 55 / 70 |
| 7 | Near private dwelling, Sagaidacul Nou village, Porumbrei Commune, Cimişlia District, Republic of Moldova – at monitoring point P11 | 52.10 | 46°41'37.69"N 28°50'50.34"E | 55 / 70 |

| | | | | |
|----|---|-------|--------------------------------|---------|
| 8 | Cărbuna-Molești Forest Area, Zloți village, Codreni Commune, Cimișlia District, Republic of Moldova – at monitoring point P13 | 62.31 | 46°43'18.23"N 28°52'26.77"E | 55 / 70 |
| 9 | Near private dwelling, Răzeni village, Răzeni Commune, Ialoveni District, Republic of Moldova – at monitoring point P15 | 70.98 | 46°45'40.34"N 28°54'42.59"E | 55 / 70 |
| 10 | Near private dwelling, Plopilor Street, Băcioi village, Botanica Sector, Chișinău Municipality, Republic of Moldova – at monitoring point P16 | 70.68 | 46°55'18.64"N 28°52'06.51"E | 55 / 70 |

Table 6-6: Compliance of Measured Noise Levels with Admissible Limits according to NCM E.04.02:2014

Conclusions on Ambient Noise Monitoring (Baseline)

According to **NCM E.04.02:2014**, the admissible daytime equivalent sound level for areas adjacent to residential buildings is **55 dB(A)**, and the maximum daytime admissible level is **70 dB(A)**.

Measured values across the 10 monitoring points range from approximately **52 dB(A)** to **70.98 dB(A)**. Exceedances of the daytime limit of 55 dB(A) were recorded at points P5, P7, P10, P15, and P16 (near residential buildings and sensitive institutions), while at P15 and P16 the values also exceed the 70 dB(A) threshold.

At monitoring point P13 (Cărbuna-Molești Forest area), the value of **62.31 dB(A)** exceeds the indicative 55 dB(A) reference used for residential zones. Although the normative does not set specific limits for natural areas, similar levels may disturb wildlife (as indicated by Shannon et al., 2016, Biological Reviews), warranting increased attention.

The current noise levels are predominantly influenced by existing road traffic and local anthropogenic activities. It is recommended to carry out periodic noise monitoring at points with elevated values – particularly near sensitive receptors and protected areas – and to implement mitigation measures (e.g., noise barriers, speed limits, traffic optimization) if noise levels increase during the construction or operational phases of the project. Detailed measurement results, including raw data, measurement conditions, and comparative graphs, are presented in **Annex 5** of the report.

6.3. Climatic factors and climate change

The Republic of Moldova is among the most climate-vulnerable countries in Europe, facing a transition toward a warmer and drier climate that increasingly threatens socio-economic and environmental stability. Average air temperature is projected to rise of 2–3°C by 2050, with the southern regions expected to experience the strongest warming. These changes increase the frequency and intensity of droughts, flash floods, and extreme weather events, generating estimated annual economic losses of about 2.1 % of GDP. Climate change exerts additional pressure on critical sectors - agriculture, water management, transport, and public health - highlighting the need to integrate climate risks into planning, strengthen early-warning systems, and institutionalise climate-budget tagging across ministries. In 2024 the Government adopted the National Strategy for Disaster Risk Reduction 2024–2030, developed with UNDP support, to reduce human and economic losses, strengthen community resilience, and protect the environment.

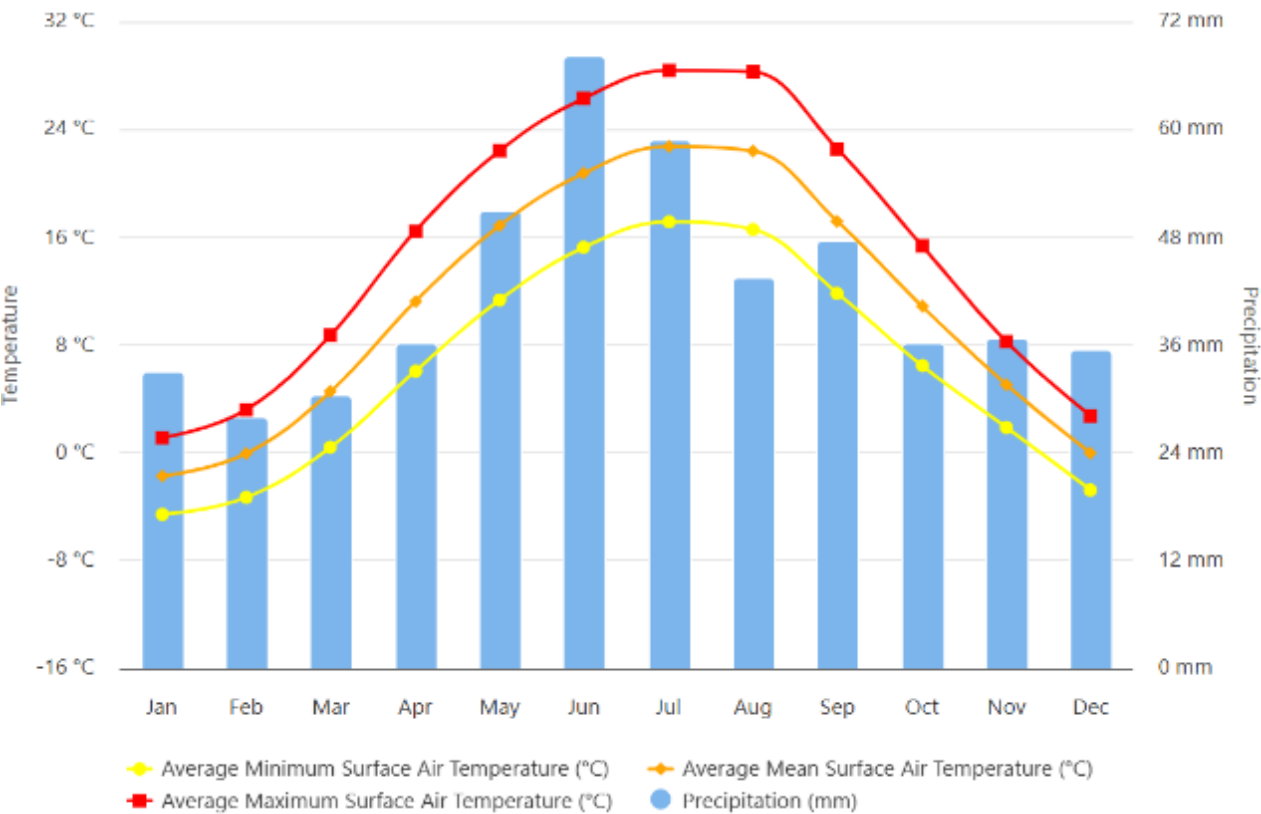


Figure 6-5: Average air temperature and Precipitation

Seasonal variations in air quality correlate with temperature and precipitation patterns. Lower air temperatures and frequent inversions during winter months (January–February) contribute to short-term pollutant accumulation, while higher temperatures and increased precipitation in spring–summer (April–August) enhance atmospheric dispersion and result in generally better air quality.

At the local level, several district centres have prepared and approved Local Climate-Change Adaptation Plans, setting out community-specific measures for addressing climate risks and natural-disaster impacts.

The transport sector remains one of the most climate-sensitive areas of Moldova’s economy. Analyses of existing infrastructure show that ageing assets and outdated materials amplify climate vulnerability and limit operational resilience. An important step in modernising the sector was the adoption of the Technical Regulation on the Minimum Requirements for the Marketing of Construction Products (GD No. 913/2016), which introduced mandatory compliance with European EN standards as of 1 January 2021. The Ministry of Economy and Infrastructure subsequently approved a list of harmonised standards (8 February 2021), replacing obsolete national norms and ensuring that all new road-construction materials and designs meet EU performance and durability criteria. All new investments in road design and construction must therefore align with these standards, ensuring compatibility with European requirements and enhancing the long-term resilience and quality of works¹⁶.

| Climatic hazards | Risks and vulnerabilities |
|--------------------------|--|
| High summer temperatures | <ul style="list-style-type: none">• Pavement deformation and shortened asphalt life• Reduced life cycle of asphalt road surfaces• Damage to infrastructure and equipment• Thermal expansion of bridge joints and paved surfaces |

¹⁶ https://www.legis.md/cautare/getResults?doc_id=140163&lang=ro

| Climatic hazards | Risks and vulnerabilities |
|---------------------------------------|---|
| | <ul style="list-style-type: none"> • Damage to bridge materials • Damage and breakdown of old vehicles • Increased frequency of road accidents |
| Extreme precipitation/flooding | <ul style="list-style-type: none"> • Damage to infrastructure (washing of pavement, road; instability of embankments) • Damage to energy networks (affecting trolleybus transport) • Disruption of transport system operations • Flooding of underground passages • Overloaded drainage systems • Flooding and collapse of bridges • Gradual degradation of transport infrastructure • Disintegration of road, sidewalk and bicycle lane surfaces |
| Extreme winds | <ul style="list-style-type: none"> • Infrastructure damage (e.g. roadside trees/vegetation blocking roads) |

Table 6-7: Climatic Hazards, Risks, and Vulnerabilities

Engineering and Technical Measures

- Climate-resilient design using modified asphalt and concrete mixes to withstand high summer temperatures and freeze–thaw cycles.
- Upgraded drainage systems (larger culverts, lined ditches, and stormwater-collection systems points) to handle higher rainfall volumes.
- Slope stabilisation and erosion control through bioengineering and vegetative cover.
- Thermal-movement-tolerant bridge joints and bearings; Flood protection for critical assets (elevated approaches, improved embankment protection);
- Use of durable road markings and safety barriers resistant to temperature extremes.

Environmental and Landscape Measures

- Reforestation and vegetative belts along the road to mitigate wind, dust, and erosion;
- Rehabilitation of natural drainage channels to maintain hydrological balance;
- Use of recycled or low-carbon materials in line with EU Green Deal principles.

Institutional and Operational Measures

- Integration of climate-resilience criteria into all future NRA road-project planning and design;
- Routine monitoring of pavement, drainage, and slope stability after major weather events;
- Capacity-building programmes for NRA engineers and contractors on climate adaptation and risk management;

Cooperation with the State Hydrometeorological Service for early warning and rapid response to floods, landslides, and heatwaves.

Alignment with Strategic Frameworks. The Project supports the objectives of:

- The National Strategy for Adaptation to Climate Change by 2030 (Government Decision No. 581/2023);
- The EU–Moldova Association Agreement, promoting sustainable transport and infrastructure resilience;
- The EBRD’s Green Economy Transition (GET) approach, encouraging climate-proof infrastructure and low-carbon growth¹⁷.

¹⁷ <https://www.ebrd.com/home/who-we-are/ebrd-values/ebrd-environmental-social-sustainability/EBRD-green/Green-Economy-Transition-Paris-alignment.html>

6.4. Geomorphology and geology

Lots 1–3 of Tranche 2 of the Project are located within the Southern Moldavian Plain (also known as the Bugeac Plain), which represents a geomorphological subregion of the Moldavian Plateau, situated in the southern part of Moldova between the Prut and Dniester interfluve. It is a rolling (hilly) plain, bordered to the west by the Tigheci Hills, to the north by the Codri Plateau, and to the east by the Lower Dniester Plain.

Along the alignment of **Lot 1**, ground elevations range from approximately 50 m to 255 m above sea level, resulting in a total elevation difference of about 205 m. The longitudinal profile (see **Figure 6-6**) shows a series of rolling hills and valleys with moderate to steep slopes, reaching local gradients of up to 8.6%, while the average longitudinal slope is approximately 3.1%.

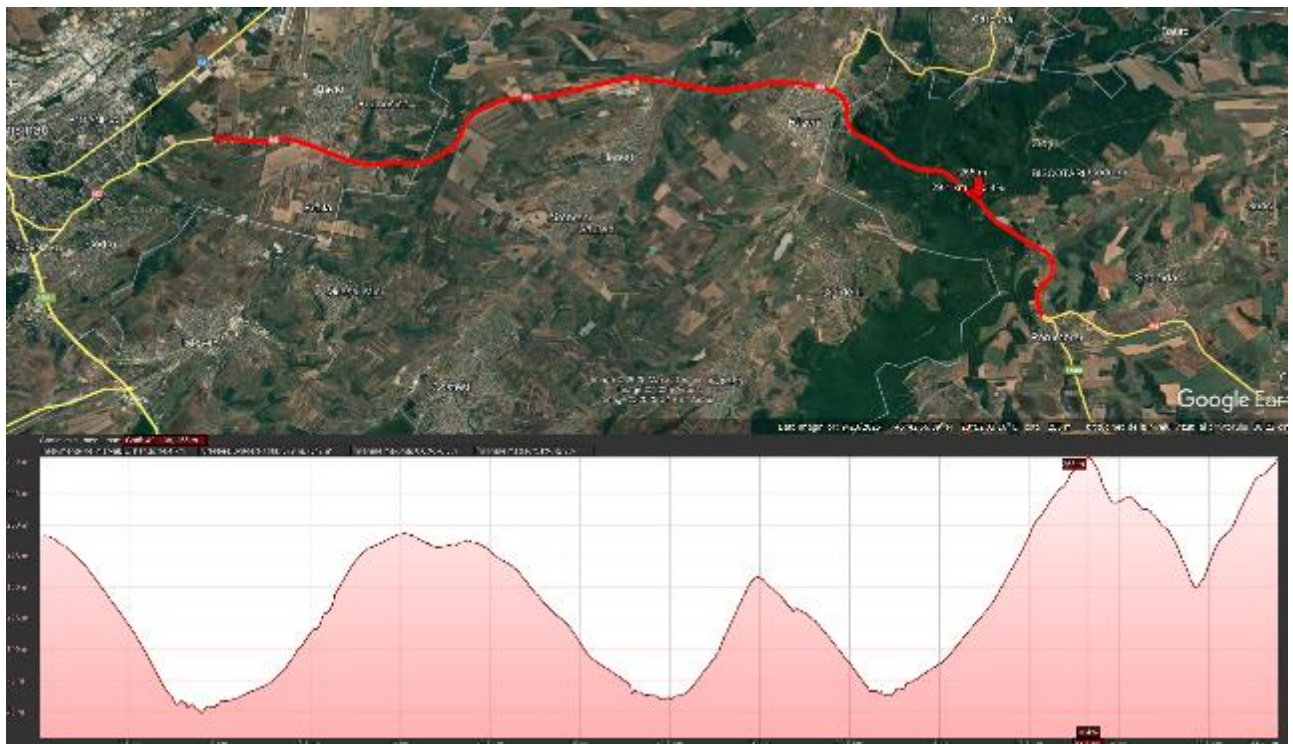


Figure 6-6: Lot 1 (Chişinău-Porumbrei)

Along the alignment of **Lot 2**, ground elevations range from approximately 78 m to 275 m above sea level, resulting in a total elevation difference of about 205 m. The longitudinal profile (see **Figure 6-7**) shows a generally descending terrain from west to east, characterized by gentle hills and wide valleys. Local slopes reach gradients of up to 8.7%, while the average longitudinal slope is around 2.1%, indicating a moderately undulating relief typical of the Southern Moldavian Plain.



Figure 6-7: Lot 2 (Porumbrei - Cimișlia)

Along the alignment of **Lot 3**, the ground elevation ranges from approximately 126 m to 204 m above sea level, with a total elevation difference of around 78 m. The longitudinal profile (see **Figure 6-8**) reveals an undulating terrain with a sequence of valleys and ridges, the lowest point corresponding to a local valley crossing near Ciucur-Mingir village. The maximum local slopes reach up to 9.3%, while the average longitudinal slope is about 2.6%, indicating a moderately uneven relief typical of the southern hilly plain region.

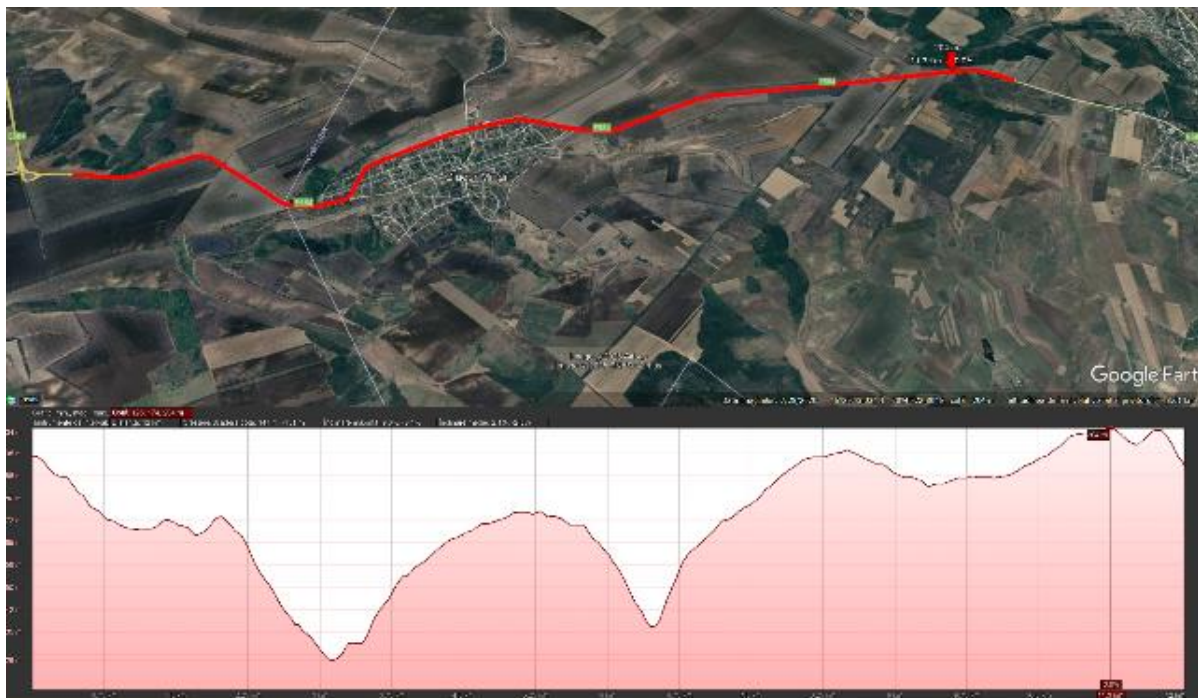


Figure 6-8: Lot 3 (Cimișlia-Comrat)

The **Lot 4 M3 and M3.1** existing road section is located within the steppe zone of the Danube Plain, specifically in the transitional area of the southern Moldavian Plateau. Along the alignment, ground elevations range from approximately 6.5 m to 79 m above sea level, resulting in a total elevation difference of about 72.5 m over a length of 2.35 km. The road alignment passes through semi-urban and peri-industrial zones before transitioning into open fields, with no major geomorphological barriers along the route.

The longitudinal profile (see **Figure 6-9**) reveals a generally ascending terrain from west to east, with a continuous slope and no significant flat segments. The maximum gradient reaches 7.9%, while the average longitudinal slope is approximately 3.1%, indicating a moderately inclined relief. This terrain is typical of the open and gently sloping plains of the Danube steppe, occasionally interspersed with anthropogenic features and minor elevation variations caused by industrial and infrastructural developments.



Figure 6-9: Lot 4 (M3, M3.1)

According to the longitudinal profile (see **Figure 6-10**), the terrain of **new Giurgiulești bypass** shows an elevation range between 56.1 m and 128 m, resulting in a total elevation difference of approximately 71.9 m. The relief along the alignment is variable, with an initial section of moderate ascent followed by a gentle descent around kilometre 1.0, after which the terrain rises steadily toward the end of the route. This type of terrain creates a “wave-like” profile, with a maximum gradient of 7.4% and an average uphill gradient of 2.8% (and - 3.5% on descending sections).



Figure 6-10: Lot 4 (Giurgiulești Bypass)

According to the geological map of the Republic of Moldova, the route of Section 2 of the M3 road crosses a series of geological formations belonging to different stages of the Neogene (Sarmatian and Pliocene). Several main geological zones are distinguished along the entire route, which reflect both the lithological diversity and the geomorphological peculiarities of the territories crossed, see the figure and table below.

| Stratigraphic Code | Geological Formation | Location | Main Lithology |
|-------------------------------------|---------------------------|--|---|
| N₁S₂ | Middle Sarmatian | Chișinău Municipality | Clays, marl, limestone, sandstone, and sands |
| N₂₂ | Middle Pliocene | Horești village area, Ialoveni District | Gravels, sands, clays, and sandy clays |
| N₁S₃ | Upper Sarmatian | Horești and Răzeni villages (Ialoveni District), Cimișlia town area, Ecaterinovca and Gradiște villages | Clays, sandstones, and sands |
| N₁S₃-m | Upper Sarmatian – Meotian | Răzeni village (Ialoveni District), Sagaidacul Nou, Porumbrei, Coștangalia, and Ciucur-Mingir villages (Cimișlia District) | Clays, sands, and sandstones |
| N₂₁ | Lower Pliocene | Sagaidacul Nou and Porumbrei villages (Cimișlia District) | Alluvial sands and gravels |
| N₂(2+3) | Middle and Upper Pliocene | Giurgiulești locality (Lot 4) | Sands with lenses of gravel and pebbles, clays, and sands |

Table 6-8: Geological zones identified in the Project area

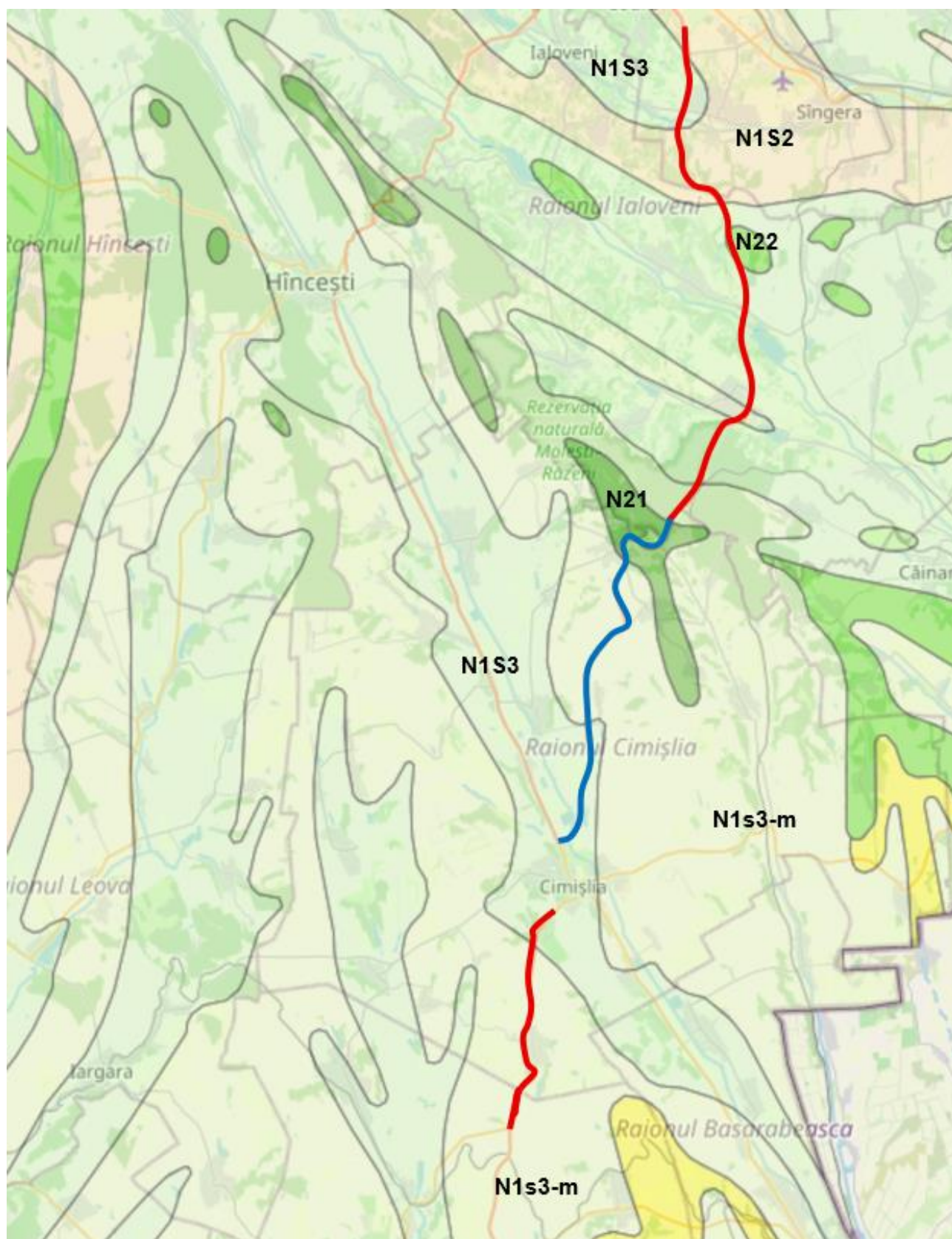


Figure 6-11: Geological zones identified in the Project area



Figure 6-12: Geological zones identified in the Project area

Seismic intensity. The M3 Chisinau-Giurgiulesti road is located in two seismic zones with an intensity of 7 degrees (Lot 1-3) and 8 degrees on the Richter scale (Lot 4). The average frequency of earthquakes of such magnitude is reported once every 35-40 years. The last strong earthquakes occurred in 1977 and 1986, slightly weaker - in 1990.

Following the review of materials and assessments carried out along the M3 Chișinău–Giurgiulești road (Tranche 2), several sections with potential **ground instability** were identified, mainly caused by the infiltration of rainwater and the geotechnical characteristics of the foundation soil.

- Lot 1. Landslide and settlement phenomena were observed at several points, particularly at km 14+600, 40+800–40+990, and 44+600 (right side). In these sections, the slopes show signs of instability, joints between slabs are widened, and the road surface is affected by settlements. The main cause of these landslides is rainwater infiltration through the joints of the concrete slabs, which penetrates the road body

and is redirected toward the slope, causing slow movements in the foundation soil composed of water-saturated sandy clays.

- Lot 2. The section between km 0+200–0+700 (DD) is located on unstable terrain, prone to landslides and soil erosion, which required consolidation works during the first phase of the project to stabilize the road structure.
- Lot 3. No project technical documentation is available. Based on site visit, no major landslides were observed, and the existing slopes are in a stable condition.
- Lot 4. According to geological reports carried out during field investigations, no significant factors were identified that could favour the development of landslides during the analyzed period.

6.5. Soil

According to the **pedogeographic regionalization** of the Republic of Moldova, Lots 1, 2, and 3 are located within the district of typical slightly humus-rich and leached chernozems, characteristic of the xerophytic forest-steppe of the Southern Plain. These soils are defined by a relatively low humus content (around 3–4%), predominantly loamy to clay-loam texture, moderate natural fertility, and a good capacity for water retention. Due to the more arid climate of the southern region, they are subject to enhanced mineralization of organic matter and are vulnerable to degradation processes such as erosion or excessive drying during drought periods. The corresponding natural vegetation consists of xerophytic forest-steppe communities, including sparse oak groves and shrubs interspersed with steppe grasslands.

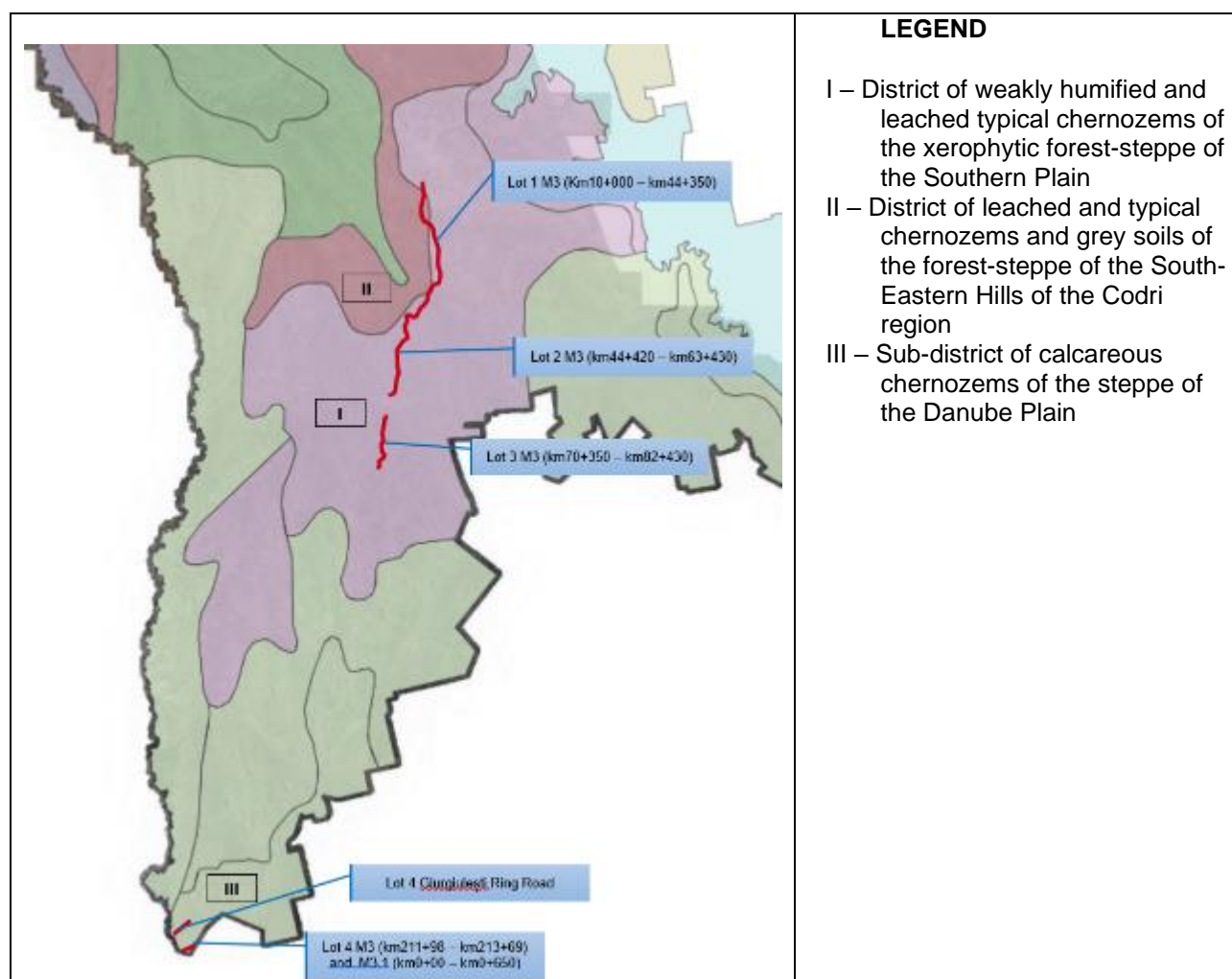


Figure 6-13: Pedogeographical Regionalization in the Project Area

Source: [Geodesy, Cartography and Cadastre Agency](#)

In contrast, Lot 4 (Giurgiulești) is situated in the steppe zone of the Southern Bessarabian Plain, where typical slightly humus-rich and carbonate chernozems dominate. These soils have relatively good natural fertility, though with a lower humus content (below 3.5%) and a higher concentration of carbonates in the lower horizons. The carbonate accumulation results in a slightly alkaline reaction, influencing nutrient availability for plants. The Southern Bessarabian region is characterized by steppe conditions, with low precipitation and hot, dry summers, favouring xerothermic steppe vegetation and limiting the spread of forest vegetation.

The analysis of agricultural land quality across the selected administrative-territorial units shows significant variation in both fertility and erosion levels.

- The highest soil quality is recorded in Sagaidac Commune (72 points), indicating highly productive agricultural land.
- The lowest bonitation score is observed in Giurgiulești Village (53 points), reflecting moderate to low fertility and higher vulnerability to erosion.
- A considerable share of land in most areas is affected by erosion, with the most critical situation in Ciucur-Mingir Village (over 50% of total land area).

Overall, the data highlight the need for targeted soil conservation measures and sustainable land management practices, particularly in regions with high erosion levels, to preserve the agricultural productivity and ecological stability of Moldova's southern districts.

The table below presents summarized data on the qualitative characteristics of agricultural lands within selected administrative-territorial units of the Republic of Moldova. It includes the total land area, the weighted average soil quality score (expressed in bonitation points), and the area of eroded lands. These indicators are used to assess the agricultural potential and land degradation level across different regions.

| No. | Name of Administrative-Territorial Units | Total Area, ha | Land Weighted Average Soil Quality Score, points | Eroded Land, ha |
|-----|--|----------------|--|-----------------|
| 1 | Băcioi Commune | 6,466 | 64 | 2,213 (34.2%) |
| 2 | Horești Village | 4,032 | 61 | 1,710 (42.4%) |
| 3 | Răzeni Commune | 7,763 | 57 | 2,583 (33.3%) |
| 4 | Sagaidac Commune | 2,981 | 72 | 1,255 (42.1%) |
| 5 | Porumbrei Commune | 1,854 | 62 | 697 (37.6%) |
| 6 | Cimișlia Town | 14,613 | 60 | 6,250 (42.8%) |
| 7 | Ciucur-Mingir Village | 4,446 | 64 | 2,199 (49.5%) |
| 8 | Comrat Municipality | 16,415 | 66 | 5,327 (32.5%) |
| 9 | Giurgiulești Village | 4,741 | 53 | 2,263 (47.7%) |

Table 6-9: Qualitative Characteristics of Agricultural Land in the Project area, January 2025

Source: [Land Cadastre 2024](#)

Soil Quality in the Project Area

To assess soil quality in the analyzed areas, a total of 7 soil samples were collected from locations adjacent to the M3 road (**Figure 6-4**), as follows:

- Sample 1 – adjacent to M3.1 road;
- Sample 4 – Giurgiulești bypass sector – arable land;
- Sample 6 – arable land adjacent to the M3 road in Ciucur-Mingir village;
- Sample 8 – arable land adjacent to the M3 road in Coștangalia village;
- Sample 9 – arable land adjacent to the M3 road in Porumbrei village;
- Samples 12 and 14 – adjacent to the “Molești–Răzeni Forest” reserve.

Sampling was carried out in accordance with the laboratory's specific procedures regarding collection, storage, identification, labeling, preservation, and transport of samples from the field to the Environmental Laboratory. The laboratory analysis results are presented in the Report included in Annex 5.

The analyzed parameters were compared with the reference values established in the regulatory document “Maximum Allowable Concentrations (MAC) in soil and their negative impact on the environment and human health.” For pedological parameters (pH, humus, total nitrogen, phosphorus, and potassium), interpretation was based on agrochemical classifications used in soil fertility assessment.

The results indicate that, for most of the investigated locations, pollutant concentrations are below the permissible limits. Localized exceedances were identified for mercury in sample PG4 (point P8, depth 30 cm) and for petroleum hydrocarbons in sample PG6 (point P1, depth 30 cm).

Considering the localized nature of these exceedances, soil remediation measures are not currently required. However, further investigations and periodic monitoring of soil quality in the affected areas are recommended. In addition to pollution parameters, pedological indicators characterizing the physico-chemical properties of the soil were also analyzed, including pH, humus content, total nitrogen, phosphorus, potassium, and moisture.

The pH values range between 6.7 and 8.3, indicating slightly acidic to slightly alkaline soils, close to neutral conditions, which are favorable for most biological processes in the soil.

The humus content ranges from approximately 2.2% to 7.06%, indicating soils with a moderate to high level of organic matter, typical of fertile soils with good nutrient retention capacity. Total nitrogen values range between 0.14% and 0.28%, reflecting a normal nitrogen supply characteristic of agricultural soils in the region. Phosphorus and potassium levels are relatively high in most samples, indicating good nutrient availability for vegetation development.

Soil moisture values, ranging between approximately 20% and 38%, reflect normal conditions for the investigated soils and do not indicate abnormal saturation or excessive dryness.

Overall, the analysis of pedological parameters shows that the soils in the investigated area have favorable physico-chemical conditions and good fertility, with no significant signs of degradation.

6.6. Water

6.6.1. Surface water

The water bodies of the Republic of Moldova are delimited in 2 river basin districts: Prut and Dniester. Within these hydrographic districts are included 4 hydrographic basins: Danube, Black Sea, Prut and Dniester. In these hydrographic basins, there are 39 hydrographic sub-basins. The latest data about the waters, and their quality, as well as the measures to improve water quality through the sustainable management of the water basins are included in the legal documents:

- Management Plan of the Dniester River Basin District, Cycle II. (2025-2030), approved by GD no. 70/2025;
- The Danube-Prut and Black Sea River Basin District Management Program, cycle II (2023-2028), approved by GD no. 444/2022.

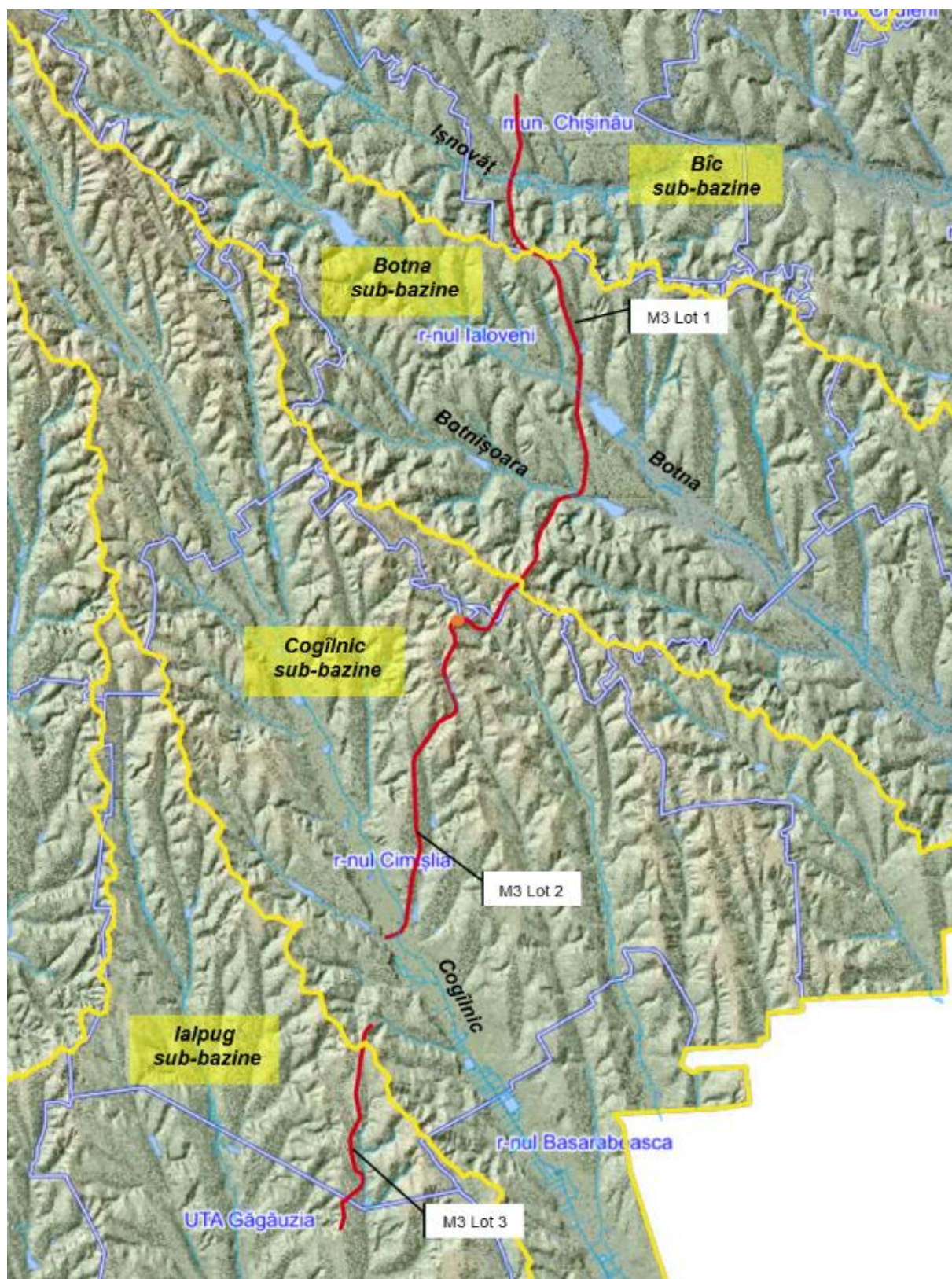
The M3 road crosses all four **hydrographic basins** of the Republic of Moldova: Dniester, Prut, Danube, and the Black Sea.

- Lot 1 starts in the sub-basin of the Bîc River (a tributary of the Dniester), continues through the sub-basin of the Botna River (a tributary of the Dniester), and ends in the sub-basin of the Cogâlnic River (discharging into the Sasyk Lagoon in Ukraine).
- Lot 2 lies entirely within the sub-basin of the Cogâlnic River (also discharging into the Sasyk Lagoon in Ukraine).
- Lot 3 is in the sub-basin of the Ialpug River (a tributary of the Danube).
- Lot 4 is situated in the sub-basin of the Prut River, within the Frumoasa–Crihana sector.

Several surface watercourses are intersected by the studied road sections. Their ecological status and key water quality characteristics are summarized below:

- Ișnovăț River – Lot 1, km 14+550: According to the Dniester River Basin Management Plan, Cycle II (2024–2029), the ecological status of the Ișnovăț River is classified as Class V (heavily polluted);

- Botna River – Lot 1, km 27+300: The ecological status of the Botna River is also rated as Class V (heavily polluted), indicating significant degradation of water quality and aquatic ecosystem functions;
- Botnișoara River – Lot 1, km 33+450: A tributary of the Botna River, likely affected by similar levels of pollution due to its hydrological connection within the same sub-basin;
- Cogâlnic River – Lot 2, km 62+720 (DD km 18+183): Water quality assessments indicate in Management Plan a classification of Class III (moderately polluted) based on biological quality elements, and Class IV (polluted) according to physicochemical parameters. Notable exceedances include:
 - Total suspended solids: 365.7 mg/l;
 - Magnesium ions: 143.5 mg/l;
 - Sodium and potassium ions: 310.4 mg/l;
 - Total mineralization: 2149 mg/l;
 - Sulfates: 740.8 mg/l;
- Prut River – Southern end of the M3 road: As reported in the Danube, Prut and Black Sea River Basin Management Plan (2022–2027), the Prut River water quality is classified as Class III (moderately polluted) based on both biological and physicochemical indicators. Recorded exceedances include:
 - Total suspended solids: 100 mg/l;
 - Sodium and potassium ions: 86.7 mg/l;
 - Total iron: 0.2 mg/l.



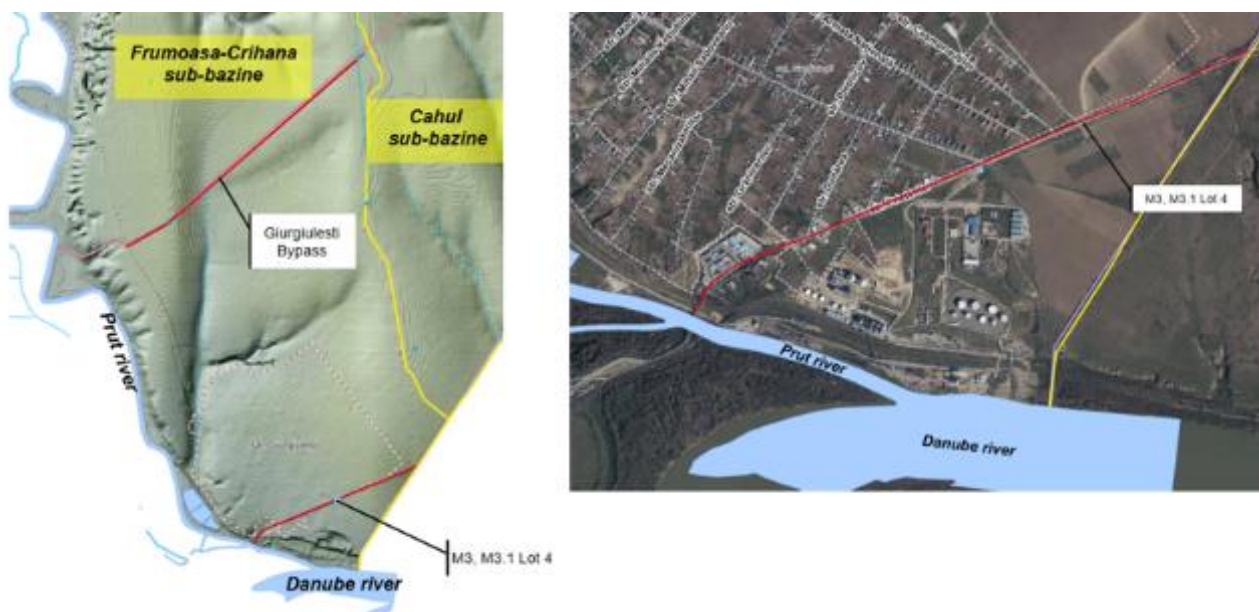


Figure 6-14: Hydrological network in the Project Area

The classification of surface water quality follows the Regulation on Environmental Quality Requirements for Surface Waters, approved by GD No. 890/2013, harmonized with the EU Water Framework Directive (2000/60/EC). This regulation establishes five classes of surface water quality:

- Class I (very good) and Class II (good) – aquatic ecosystems function naturally, and water quality meets environmental objectives;
- Class III (moderately polluted) – moderate disturbance of ecosystem functioning is observed;
- Class IV (polluted) and Class V (heavily polluted) – waters do not meet the requirements for use as drinking water sources without the application of advanced treatment methods.

The responsible authority for monitoring the state of the waters is the Environment Agency within the ME and draw up reports in this regard¹⁸

| River | Location | River Length (km) | Basin Area (km ²) | Average Annual Discharge (m ³ /s) | Quality class | Dimensions of the protection zones*, m | Dimensions of the riparian sheets for water protection**, m |
|------------|----------|-------------------|-------------------------------|--|---------------|--|---|
| Ișnovăț | 14+550 | 59 | 371 | 0.2 | V | 500 | 20 |
| Botna | 27+300 | 146 | 1540 | 0.79 | V | 500 | 50 |
| Botnișoara | 33+450 | NA | NA | NA | NA | 15 | 5 |
| Cogâlnic | 62+720 | 104.2 | 1031.1 | 0.70 | IV | 500 | 50 |
| Prut | 213 +400 | 953 | 27,540 | 110 | III | 1000 | 100 |

Table 6-10: Basic hydrological characteristics of selected rivers

*Within the limits of water protection zones, the following activities are prohibited: discharge of untreated wastewater into the soil or watercourses; cutting of trees and shrubs; extraction of solid sediments (sand, gravel, pebbles, stones) from the minor riverbed for commercial purposes.

¹⁸ Annual Report regarding water in the Nistru river basins-2022

<https://am.gov.md/sites/default/files/document/attachments/RAPORT%20ANUALprivind%20calitatea%20apei%20de%20suprafa%C8%9B%C4%83%20%C3%AEen%20districtul%20hidrografic%20Nistru%20pentru%20anul%202022.pdf>

** The territory of the riparian strips of water protection is used for the creation of forest curtains, for haymaking and for the restoration of spawning sites in floodplains and river deltas.

Field Baseline Investigations

In addition to the information provided in the River Basin Management Plans, surface water samples were collected in February 2026 from selected watercourses intersected by the M3 road alignment (Ișnovăț, Botna, Botnișoara and Cogâlnic rivers) in order to establish the site-specific baseline conditions prior to the implementation of construction works. Laboratory analyses were performed by "LABORATORUL INVESTIGAȚII DE MEDIU" S.R.L., with the testing starting on 13 February 2026.

The analytical results generally confirm the ecological status reported in the relevant River Basin Management Plans. While pH values and dissolved oxygen concentrations indicate neutral to slightly alkaline waters with sufficient oxygenation (Classes I–II), elevated values of organic pollution indicators (COD-Cr and BOD₅), nutrients (ammonium nitrogen and total phosphorus) and, locally, petroleum products were recorded. These parameters correspond mainly to Classes IV–V under GD No. 890/2013, indicating polluted to heavily polluted surface waters.

| River / Sampling Point | General Dominant Quality Class | Critical Parameters (Class IV–V) | Observations |
|--|--------------------------------|---|---|
| Ișnovăț River (M3 bridge, Străisteni / Băcioi villages, Chișinău mun.) | Class IV–V | CCO-Cr (IV), CBO ₅ (V), N-NH ₄ ⁺ (IV), P _{total} (IV) | Moderate organic and nutrient pollution |
| Botnișoara River (M3 bridge, Răzeni village, Ialoveni district) | Class IV–V | CCO-Cr (IV), CBO ₅ (V), N-NH ₄ ⁺ (IV), P _{total} (IV) | Moderate organic and nutrient pollution |
| Botna River (M3 bridge, Răzeni village, Ialoveni district) | Class IV–V | CCO-Cr (V), CBO ₅ (V), N-NH ₄ ⁺ (IV), P _{total} (IV) | Highest organic load among all sampling points |
| Cogâlnic River (M3 bridge, Cimișlia town) | Class IV–V | CBO ₅ (V), N-NH ₄ ⁺ (V), P _{total} (V) | Most polluted – very high concentrations of ammonium and phosphorus |

Table 6-11: Overview of water sample results

The identified pollution is characteristic of diffuse agricultural inputs, untreated or insufficiently treated domestic wastewater discharges, and natural background conditions typical for lowland river systems in the southern and central parts of the Republic of Moldova. The results therefore reflect pre-existing environmental pressures and are not related to the proposed road rehabilitation works. The full results of the laboratory analyses of water samples are provided in Annex 5.

6.6.2. Groundwater

According to information provided by local public administrations, the water supply sources for settlements in the project area are deep wells, which serve the population through centralized water supply systems.

Centralized drinking water systems are available in the following localities: Băcioi, Străisteni, Răzeni, Porumbrei, Sagaidacul Nou, Cimișlia, Ciucur Mingir, and Giurgiulești.

Connection rates to the centralized water supply systems in the project area are as follows: Băcioi – 84%, Străisteni – 84%, Răzeni – 100%, Sagaidacul Nou – 0%, Porumbrei – 100%, Cimișlia – 100%, Ciucur Mingir – 80% and Giurgiulești – 94%.

Field Baseline Investigations

The quality of water supplied through public systems is continuously monitored. Responsibility for monitoring and ensuring the quality of drinking water delivered to consumers lies with the respective water management companies and local public administrations.

Groundwater samples were collected from public drinking water supply systems based on deep wells in Răzeni, Sagaidacul Nou and Porumbrei. The quality of groundwater was assessed against the requirements of Law No. 182/2019 on drinking water quality.

The results indicate that groundwater is microbiologically safe, as no *Escherichia coli*, coliform bacteria or intestinal enterococci were detected in any of the analyzed samples. Most physico-chemical parameters, including pH, conductivity, chlorides, sulfates and iron, comply with the applicable standards.

However, elevated concentrations of ammonium were recorded in all sampled wells, exceeding the admissible limit of 0.5 mg/l. In addition, low total hardness values and, in some cases, non-acceptable colour were observed. These exceedances are typical for groundwater in the region and are attributed to local hydrogeological conditions and long-term anthropogenic influences rather than to project-related activities.

Water samples collected from individual water source (Giurgiulești) show significant chemical and microbiological non-compliance with drinking water standards. Very high concentrations of nitrates and sulfates, increased mineralization and hardness, as well as the presence of *Escherichia coli* and total coliform bacteria, were recorded.

The results demonstrate that water from such individual sources is unsuitable for human consumption without advanced treatment. This situation is typical for shallow, unprotected wells in rural areas and highlights the importance of centralized water supply systems for the protection of public health. Similar water quality issues are widely reported across the territory of the Republic of Moldova and are primarily associated with intensive agricultural practices, including the excessive use of mineral fertilizers and manure, diffuse nutrient runoff, as well as the absence or inadequate protection of sanitary zones around individual wells. Additional contributing factors include shallow groundwater tables and limited wastewater collection and treatment infrastructure in rural settlements.

Considering the existing degraded quality of surface waters and the sensitivity of groundwater resources in the project area, particular attention has been given to the design and rehabilitation of drainage structures in order to prevent additional pollution during both construction and operation phases.

According to data provided by the Agency for Geodesy, Cartography and Cadastre through the public portal geodata.gov.md, areas with low flood risk have been identified in the vicinity of the Ișnovăț, Botna, and Cogâlnic Rivers.

The inspection and assessment of existing drainage structures along the project sections (Lots 1–4) indicate that the overall condition of the culverts varies from good to unsatisfactory, with a number of structures requiring repair or full replacement to ensure proper hydraulic performance and road safety.

- For Lot 1, most culverts are in a deteriorated state, exhibiting issues such as damaged joints and plaster, partial silting, erosion of embankments, and local structural defects. The proposed interventions primarily include joint and plaster repair, cleaning and desilting, reconstruction of inflow and outlet ditches, waterproofing works, and construction of missing end walls. These measures will restore the hydraulic capacity and structural integrity of the existing drainage system.

- In Lot 2, all culverts were constructed during Phase 1 of the project and are considered in good condition, requiring no major interventions at this stage.
- For Lot 3, no data are currently available, and additional field investigations will be required to assess the condition and functionality of the drainage structures.
- In Lot 4, several culverts are in unsatisfactory technical condition. The project solutions include replacement of damaged culverts with new tubular or rectangular (box) culverts, and the construction of new drainage structures where required (e.g., along the Giurgiulești Bypass) to ensure adequate water flow and protection of the road embankment.

For the adoption of appropriate stormwater drainage solutions along each road section, hydrological calculations were carried out for the respective catchment areas. Based on these analyses, suitable rehabilitation measures or new constructions were proposed to ensure efficient collection and discharge of surface runoff in accordance with design standards.

Overall, the proposed works will significantly improve the drainage efficiency, reduce the risk of flooding and erosion, and prolong the service life of the rehabilitated road sections.

| No. | Existing drainage structure | Location DD | Technical condition | Project solution |
|--|---|-------------|---|--|
| Lot 1 - DD no. 11-19/252/04.06.2014 | | | | |
| 1 | Concrete Culvert for livestock crossing, L=33.9m | 3+395 | Downstream end partially damaged | Plaster the end. |
| 2 | Concrete Culvert for livestock crossing, 27.7×4.0×2.5m (h) | 5+767 | Joints are partially damaged. Water infiltrates through the joints. Salt stains are visible. The inflow ditch is destroyed over a 25m section. Culvert section silted: 10% at inlet, 35% at outlet. | 15% joint repair. Clean riverbed upstream (15m) and downstream (100m). Waterproofing needed. Clean the culvert. |
| 3 | Concrete Culvert, 29.54×2.5×2.0m (h) | 6+620 | Downstream inflow ditch is destroyed. 0.5m of silt at downstream section. Roadway above the culvert is cracked. | The active section ensures free flow of design discharge. Reconstruct the inflow ditch. Clean the culvert section and the outlet channel over a 100m section along the road embankment towards Chișinău. |
| 4 | Tubular culvert, L=35.32m, Ø 1.5m | 9+406 | Downstream section silted 10%. Downstream end is cracked. | Plaster downstream end. Clean culvert section and 20m of outlet channel. |
| 5 | Tubular culvert, L=29.38m, Ø 1.5m | 11+095 | Upstream conical element shifted down and 20cm laterally. | 15% joint repair. Reposition conical element. |
| 6 | Tubular culvert, L=31.01m, Ø 1.5m | 12+603 | Element no. 3 has settled by 5cm. Other elements are unevenly installed. Partial loss of joint plaster. | 100% joint repair and plastering. |
| 7 | Concrete Culvert, 31.01×2.5×2.0m (h) | 17+370 | Culvert sealing is damaged, causing reinforcement corrosion. Upstream end consolidation destroyed. Lack of end walls caused two landslides on the embankment. | Joint repair required. Renew waterproofing. Consolidate ends. Provide two end walls. |
| 8 | Concrete Culvert, 37.69×2.0×2.0m (h) | 18+580 | Joint plaster damaged. 15% silt at downstream. Downstream floor slab and embankment support destroyed. | Full repair of culvert. Clean culvert and outlet channel over 75m. |
| 9 | Concrete Culvert for livestock crossing, 27.2×4.0×2.5m (h) | 22+336 | 90% joint plaster damaged. 30% silt due to sludge from right-side ditch. Left-side ditch also silted. Locals have created their own access. | Joint repair. Clean culvert and upstream channel over 60m. Provide access per technical requirements. |
| 10 | Concrete Culvert for livestock crossing, 53.45×4.0×2.5m (h) | 23+885 | Upstream wing wall cracked. No end walls built, causing erosion 5m and 25m from culvert. | 70% joint repair. Plaster ends. Build end walls on left side as needed. |

| | | | | |
|---|--|--------------------|---|--|
| 11 | Concrete Culvert, 39.3x2.0x2.0m (h) | 24+685 | Good condition except first culvert element is cracked. | Replace cracked element. |
| 12 | Concrete Culvert, L=43.13m | 24+945 | Upstream, a void formed between culvert end and embankment. | 20% joint repair and construct new consolidation to fill the void. |
| 13 | Concrete Culvert, L=44.28m, with raised inlet | 29+849 | Joint plaster damaged. Cracks in upstream culvert end. | 100% joint repair. Plaster upstream end. |
| 14 | Concrete Culvert, L=106.5m | 32+126 | Generally good condition except for downward foundation deflection. Likely caused by load sag. Lack of end walls caused embankment erosion. Silt depth: 0.6m (upstream), 1.4m (downstream). | Clean culvert and outlet channel over 160m. After cleaning, assess culvert for structural repair. |
| 15 | Concrete Culvert for livestock crossing, L=37.4m | 34+095 | Joint plaster damaged. 10% silted. | 100% joint repair and cleaning. |
| Lot 2 - all the culverts were built in Phase 1 of the project. | | | | |
| Lot 3 – no data available | | | | |
| Lot 4 M3, M3.1 DD No. D-065-PE/2024-RHM | | | | |
| 1 | Tubular culvert, Ø 1.0m | 4+538 | The unsatisfactory technical situation. | Replacement with a Ø1.0m tubular culvert. |
| 2 | - | 212+050 | - | Box culvert 1,60 m x 1,0m |
| 3 | Tubular culvert TN, 2x Ø 1.0m | 212+430 | - | Reparation |
| Lot 4 Giurgiuleşti Bypass | | | | |
| 1 | Concrete Culvert, 2,0m x 2,0m | 1+258 | - | New construction |
| 2 | Tubular culvert Ø1,20m | 2+168 | - | New construction |
| 3 | Tubular culvert Ø1,20m | 3+082 | - | New construction |
| 4 | Tubular culvert, Ø1,0m | R34, at km 175+897 | The unsatisfactory technical situation. | It is necessary to replace the existing culvert with a closed rectangular culvert 1.0 m x 1.0 m (without calculation), located within the R34 road at approximately km 175+867. To ensure the drainage of the torrent from the ditch on the right side of the bypass road, a closed rectangular culvert 1.0 m x 1.0 m (without calculation) should be provided within the R34 road, after the roundabout, at approximately km 175+965. |

Table 6-12: Drainage structure and project solutions

6.7. Biological and ecological resources

The purpose of the ESIA is to analyse the interconnected impact of the Emeral Sites, natural protected areas (NPA), sensitive habitats and targets flora and fauna, in accordance with the Bank's E&S Policy, ESP of BERD (2019): **EBRD Performance Requirement 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.**

Key targets for preliminary Biodiversity Assessment (BA) are follows:

- Comparative analysis of the requirements set in international treaties to which the RM is part and the EU legislation related to protection of birds' species and their habitats. The requirements envisaged in the

texts of international treaties (CBD, BERN, CMS, AEW, etc), resolutions, notifications and decisions shall be reviewed.

- Analysis of national and specific reports (for species), developed and submitted by the RM to international treaties to which the RM is a party (CBD, CMS, AEW) referring to protection of flora/fauna species and their habitats and establishing the potential impact on such species at the M3 Road.
- Evaluation of areas of potential risk, crossed by the Road M3 rehabilitation corridor and adjacent areas (Emerald sites, natural protected areas (NPA), forest,) and establishing the major impact induced for them at the construction stage.
- Analysis of data regarding the impact of the M3 Road rehabilitation/construction stages, if it leads to significant degradation of natural habitats from the viewpoint of support capacities for key species' populations at the construction/operational stages.

The target groups selected for gap analysis for BA are:

- Emerald Sites with NPA;
- Habitats of flora and fauna
- Migratory species
- Natural ecosystems (forestry, aquatic, palustric).

Thus, in the intervention area, the following sensitive zones and areas of special interest have been established for assessment:

| Sensitive Zones | Areas of special interest |
|---|---|
| <i>Emerald Sites:</i> | <ul style="list-style-type: none"> • Lot 1: Padurea Molesti-Rezeni (Forest Molesti-Rezeni) (SiteCode: MD0000026) and "Carbuna" (SiteCode: MD0000022) • Lot 2 – <i>there are no Emerald sites</i> • Lot 3: Stepa Bugeacului" (Bugeac Steppe) (SiteCode: MD0000016); Lot 4: "Lacurile Prutului de Jos" (Prutului de Jos Lakes) (SiteCode: MD0000012) |
| <i>Natural protected areas (NPA)</i> | <ul style="list-style-type: none"> • Lot 1: Nature reserves: "Molești – Răzeni" and "Molești" (Part of Emerald Site „Padurea Molesti-Rezeni" (Forest Molesti-Rezeni, Code: MD0000026) and Landscape reserve: "Carbuna" (part of Emerald Site "Carbuna", Code: MD0000022); Monument of nature, Geological and Paleontologic: "The Outcrop - Costești". • Lot 2 – <i>there are no NPAs</i> • Lot 3: Nature reserve (for medicinal plants): "Bugeac Steppe (Stepa Bugeacului)" (part of the Emerald site" Bugeac Steppe", Code: MD0000016); Lot 4: Scientific reserve: "Lower Prut" (Prutul de Jos), Biosphere reserve: "Lower Prut" (Prutul de Jos), Wetlands of international importance (RAMSAR List): "Lakes of the Lower Prut" (Lacurile Prutului de Jos)- all part of the Emerald Site "Lacurile Prutului de Jos" (Prutul de Jos Lakes), Code: MD0000012) |
| <i>Natural Ecosystems</i> | <ul style="list-style-type: none"> • <u>Forest Ecosystems</u>: in the area of Lot 2 – forest bodies (Molești, Răzeni) managed by the State Silvo Cinegetic Enterprise "Sil - Răzeni" (Ialoveni District); • <u>Aquatic Ecosystems</u>: Prut, Ialpug, Cogâlnic Rivers and other small rivers form valuable floodplains and wetlands; natural lakes and ponds (Manta, Beiu – part of the <i>Lower Prut Reserve</i>), Sasyk Liman and its connections with the Danube and Black Sea increase the area's importance as a stopover site for migratory birds • <u>Steppe Ecosystems</u>: in the area of the Bugeac steppe (Lot 3) but also in other areas along the route of the M3 road. • <u>Agricultural Ecosystems</u>: the multiannual agricultural plantations (wheat, corn, barley, sunflower, alfalfa, rapeseed, etc.), the vineyards and orchards are encountered along the road |

Table 6-13: Overview of sensitive zones and areas of special interest

6.7.1. Emerald Sites and habitats

The National Ecological Network of Moldova, as part of the Pan-European Ecological Network Natura 2000, was established with the support of the Council of Europe and the EU project on the creation of the Emerald Network.¹⁹ It constitutes a total area of 127,871 ha (11,113 km²), or 7.5% of the country's territory. In 2023, the Emerald Network in the RM was approved at national level by amending Law no. 84/2007 on the ecological network, which designated 38 - Total number of sites in the Emerald Network – 52, habitats – 34, species – 144. The total area of Emerald sites covers – 8% of the country's territory. The list of 34 habitats in Moldova of European importance was identified within the Emerald Network project, based on the EUNIS Habitats Handbook. The database and GIS mapping were developed.²⁰

The object of the Law no. 84/2007 is the creation of a legal framework for the establishment and development of the national ecological network, as an integral part of the pan-European ecological network and local ecological networks, for the establishment of a management and protection regime for the national ecological network and local ecological networks, such as and the powers and obligations of public administration authorities in this field.

According to the Law, the following activities are prohibited in core areas and ecological corridors and within the perimeter of the core area:

- plowing of the land, except for its use for forestry purposes;
- the construction of buildings and installations, infrastructure or temporary objectives, except for those necessary for the operation and protection of the area;
- the use of chemical substances, except for exceptional natural or man-made situations;
- exploitation of deposits of useful mineral substances; and
- other activities that lead to the damage or degradation of the elements of nature.
- In the perimeter of the ecological corridors, the following are prohibited:
 - construction of buildings, infrastructure, communication routes and other activities that prevent or limit the natural migration of animals; and
 - the assignment of mining perimeters for the exploitation of deposits of useful mineral substances, if they occupy more than half of the width of the ecological corridor.

| Sensitive Zone | Description | Location |
|---|--|----------|
| Padurea Molesti-Rezeni (Forest Molesti-Rezeni), Site Code: MD0000026 | It represents nature habitat of forest with the distance along the road is 780 m (from km 38+150 - Km 38+930 in the Lot 1 of the M3 Road | |

¹⁹ <https://www.coe.int/ro/web/Bern-convention/emerald-network>

²⁰ <http://cdr.eionet.europa.eu/md>

| | | |
|--|---|--|
| <p>"Carbuna" Natural Reserve (SiteCode: MD0000022) - Lot 1</p> | <p>It represents nature habitat of forest and only a corner is at the limit of the road of Km 39+150 (with a distance of 130 m to the road) in the Lot 1 of the M3 Road</p> | |
| <p>Stepa Bugeacului” (Bugeac Steppe) (SiteCode: MD0000016) - Lot 3 (Cimislia – Comrat, 12km</p> | <p>The road intersects the Emerald Site in 2 places: between km 79+100 to 79+600 km (with a distance of 500m along the road) in the area of the Dimitrovca village and intersects the road at km 82+900 in the area of the Ciugur Mingir village in the Lot 3 of the M3 Road. It is representing nature and modified habitats.</p> | |
| <p>Lacurile Prutului de Jos” (Prutul de Jos Lakes) (SiteCode: MD0000012) – lot 4 (Connection with new bridge over River Prut at the Romanian border, 5km)</p> | <p>The road intersects the Emerald Site between km 213+420 to 213+290 km (with a distance of 130m along the road) in the area of the Romanian border.</p> <p>Entry to this area is prohibited, including for the administration of the Lower Prut Reserve, but also for scientific researchers. It is representing nature (degraded) habitats</p> | |

Table6-14: Road crosses the territory of four sites of the Emerald Network

Below is the description of these sites, habitats and target species in them, listed in EU Resolution 6.

Emerald Site „Pădurea Molești-Răzeni”

| Site code | Site name | Site center location, longitude/latitude | Surface (ha) | Number of bird species | Other species (units) | Habitat (units) | Biogeographics |
|------------|--|--|--------------|------------------------|-----------------------|-----------------|----------------|
| MD00000026 | Pădurea Molești-Răzeni (Forest Molești-Răzeni) | 28.8158/ 46.7266 | 386,0 | 3 | 3 | 2 | CON |

Table6-15: description of the Emerald Site „Pădurea Molești-Răzeni” (Forest Molești-Răzeni) MD00000026

The **habitat** types of European interest for which the Emerald Site "Forest Molești-Răzeni " MD00000026 has been declared are the following: [G1.1](#) Quercus- Fraxinus -Carpinus betulus woodl (Resolution 4 habitat type (Bern Convention) and [G1. A4](#) Ravine and slope woodland (Resolution 4 habitat type (Bern Convention). The Map of the Emerald Site "Pădurea Molești-Răzeni " (Code MD00000026) is included in the Annex 2.6

Following the examination of the land and the documentation of the Forest Management Plan for the Rezeni forest, developed in 2024, and from discussions with representatives of SE "Silva-Rezeni" it was established that in the area adjacent to the M3 road there is a **G1.1 type of habitat**, on mesotrophic soils and dominated by oak species - *Quercus robur* and *Quercus petraea* and with the presence of other deciduous species: *Fagus sylvatica*, *Carpenus betulus* and *orientalis*, *Tilya cordata*, *Cerasus avium* and others shrubs: *Crataegus*, *Ligustrum*, *Swida*, *Sambucus nigra*, *Staphylea pinnata*. Herbaceous plants were evaluated in the field: *Artemisia vulgaris*, *Arum orientale*, *Asarum europaeum*, *Asparagus officinalis*, *Asparagus thenuifolius*, *Brachypodium sylvaticum*, *Bromopsis benekenii*, *Corydalis solida*, *Cucubalus baccifer*, *Dactylis glomerata*, *Ranunculus casubicus*, *Ranunculus polyanthemus*, *Rumex sanguineus*, *Salvia nemorosa*, *Scutellaria galericulata* and others. The forest in the site is of medium productivity; the trees are of medium and low height and small diameter. There are many invasive species for our country, such as *Robinia pseudoacacia*, *Acer negundo* and *Amorpha*.

Emerald Site „Carbuna” (MD00000022)

| Site code | Site name | Site center location, longitude/latitude | Surface (ha) | Number of bird species | Other species (units) | Habitat (units) | Biogeographics |
|------------|-------------------|--|--------------|------------------------|-----------------------|-----------------|----------------|
| MD00000022 | Carbuna (Cărbuna) | 28.8663/ 46.717 | 678,0 | 3 | 4 | 2 | CON |

Table6-16: The description of the Site Emerald Site „Carbuna” MD00000022

The **habitat** types of European interest for which the Emerald Site "Carbuna" MD00000022 has been declared are the following: **F3.247** - Ponto-Sarmatic deciduous thickets (Resolution 4 habitat type (Bern Convention) , Annex I habitat types (EU Habitats Directive) and **G1. A1** Quercus–Fraxinus -Carpinus betulus woodland on eutrophic and mesotrophic soils (Resolution 4 habitat type (Bern Convention). The Map of the Emerald Site "Carbuna" (Code MD00000022) is included in the Annex 2.6.

Following the examination of the land and the documentation of the Forest Management Plan for the Carbuna forest, developed in 2024, and from discussions with representatives of SE "Silva-Rezeni" it was established that in the area adjacent to the M3 road there is a **G1.A1 type of habitat**, on eutrophic or mesotrophic soils, with usually ample and species-rich herb and shrub layers and dominated by oak species - *Quercus robur* and *Quercus petraea* and with the presence of other deciduous species: *Fagus sylvatica*, *Carpenus betulus*, *Carpinus orientalis*, *Tilia tomentosa*, *Ulmus carpinifolia*, with shrub species: *Cornus mas*, *Corylus avellana*, *Cotinus coggygria*, *Crataegus* spp. and others. Herbaceous plants were evaluated in the field: *Hordelymus*

europaeus, Hypericum spp., Inula salicifolia, Isopyrum thalictroides, Lamium levigatum, Lamium purpureum, Lapsana communis, Lathyrus spp., Pulmonaria officinalis, Pyretrum corymbosum, Ranunculus spp, Scilla bifolia, Scrophularia nodosa, Scutellaria altissima, Sedum maximum, Silene noctiflora, Sonchus arvensis, Stellaria graminea, Stellaria holostea, Stellaria media, Symphytum tauricum, Taraxacum officinalis The forest in the site is of medium and low productivity; the trees are of medium and low height and small diameter. There are many invasive species for our country, such as Robinia pseudoacacia, Salix caprea.

| Species Group | Code | Scientific Name | Population on the site | | | Unit | Cat. C/R/V/P | Images |
|---------------|------|--------------------------------------|------------------------|----------|------|----------|--------------|---|
| | | | Type | Size Min | Max | | | |
| A | 1188 | Bombina bombina | p | 1000 | 1500 | i | C |  |
| A | 1201 | Bufo viridis | | 7 | 10 | area | C |  |
| B | A429 | Dendrocopos syriacus | p | 5 | 7 | p | C |  |
| B | A097 | Falco vespertinus | r | 0 | 0 | | R |  |
| I | 1083 | Lucanus cervus | p | 0 | 0 | | R |  |
| B | A073 | Milvus migrans | r | 0 | 0 | | C |  |
| A | 1166 | Triturus cristatus | p | 300 | 500 | i | R |  |
| R | 2432 | Anguis fragilis | | 500 | 700 | grids1x1 | R |  |
| R | 1283 | Coronella austriaca | | 12 | 20 | length | C |  |
| A | 1203 | Hyla arborea | | 6000 | 8000 | area | R |  |


| Species Group | Code | Scientific Name | Population on the site | | Unit | Cat. C/R/V/P | Images |
|---------------|------|---------------------------------|------------------------|--------------|----------|--------------|---|
| | | | Type | Size Min Max | | | |
| R | 1263 | Lacerta viridis | | 1300 2100 | grids1x1 | R |  |

Table 6-17: Species listed in Resolution 6 and sites („Carbuna” and „Molesti -Rezeni”) evaluation for them

Specifications: - Group: A =Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P =Plants, R = Reptiles
 Type: p=permanent, r=reproducing, c=concentration, w=wintering (for plant and non-migratory species use permanent);
 Unit: i=Individuals, p=pairs or other units according to the standardised list of population units and codes, in accordance with Art. 12 and 17 reporting under the Birds and Habitats Directives; Abundance categories (Cat.): C=common, R= rare, V=very rare, P=present – to fill if data quality are deficient (DD) or in addition to population size information

The fauna species existing in the studied area were monitored by the researchers of the Institute of Zoology in the scientific, and the results of the investigations are included in the article: **“Terrestrial vertebrate fauna from Horești-Rezeni area of the central zone of the Republic of Moldova”** (Fauna de vertebrate terestre a zonei Horești-Rezeni din centrul Republicii Moldova) (Autors: Dr. Victoria NISTREANU, dr. Anatolie SAVIN, dr. Alina LARION, dr.Vladimir ȚURCAN, dr. Veaceslav SITNIC, Natalia CARAMAN, Silvia URSUL, dr. Vitalie AJDER, Vladislav CALDARI” and published in the journal „AKADEMOS”, of the Academy of Sciences of Moldova²¹, Nr. 4(59) 2020.

With reference to birds, recently it has been elaborated additional special study on the risk to bird species and their habitats, for the 400 kV OHL corridor: **“Avian Risk Assessment and Mitigation Report”**²² for implementation at the operational stage, according to the requirements set out in the terms of reference, is composed of the following compartments: (i) Avian Risk Management Program, (ii) Avian Risk Monitoring Program, (iii) Avian Risk Mitigation Plan, (iv) Institutional Strengthening Program and (v) Avian Risk Management component for the Site Specific ESIA/ESMPs, *within the project: “The Power System Development Project (PSDP)” for includes building an overhead electricity line 400 kV OHL Vulcănești – Chișinău (supported By World Bank). Thus, the Report includes the investigations in the Molesti-Rezeni, Carbuna Areas.*

Emerald Site “Stepa Bugeacului” (Bugeac Steppe) SiteCode: MD0000016.

Below is the description of this site, habitats and target species in them, listed in EU Resolution 6. The Map of the Emerald Site " Stepa Bugeacului" (Bugeac Steppe) (Code MD00000016) is included in the Annex 2.6.

| Site code | Site name | Site center location, longitude/latitude | Surface (ha) | Number of bird species | Other species (units) | Habitat (units) | Biogeographics |
|------------|------------------|--|--------------|------------------------|-----------------------|-----------------|----------------|
| MD00000016 | Stepa Bugeacului | 28.615/ 46.1069 | 49610,0 | 32 | 10 | 2 | STE |

Table6-18: description of the Emerald Site: “Stepa Bugeacului” (Bugeac Steppe) MD0000016

The **habitat** types of European interest for which the Emerald Site " **Stepa Bugeacului** " MD00000016 has

²¹ Source: http://www.akademos.asm.md/files/Akademos_4_2020_web.pdf

²² Source: <https://ucipe.gov.md/sites/default/files/2025-08/final-avian-risk-assesment-report-specific-for-operational-stage-of-the-400-kv-ohti-eng.pdf>

been declared are the following: **E1.2 type of habitat “Perennial calcareous grassland and basic steppes”** (Resolution 4 habitat type (Bern Convention , Annex I habitat types (EU Habitats Directive) and **E5.4 Moist or wet tall-herb and fern fringes and meadows** (Resolution 4 habitat type (Bern Convention , Annex I habitat types (EU Habitats Directive).

Following the examination of the land and the scientific monitoring documentation, and from discussions with representatives of the Botanical Garden (Institute) it was established that in the area adjacent to the M3 road (nearly Dimitrovca and Ciugur Minjir localities) there is a **E1.2 type of habitat “Perennial calcareous grassland and basic steppes”**, dominant of basic grasslands of the steppe zone. Vegetation communities of *Festuco-Brometea* species. Along with these are the species of blackfish, fescue, cheleria, crested pyrus, clover, alfalfa, sparcet, crown, cosacks, which are well adapted to the arid conditions of the south, etc. There are a few shrubs: *Amygdalus nana*, *Spiraea* spp., *Crataegus monogyna*, *Rosa rugosa* și drobul.

During the summer, autumn, as a result of high temperatures and drought, these areas are dry and degraded. Domestic animals (sheep and goats) are found grazing on these lands.

| Group | Code | Scientific Name | Type | Size | | Unit | Cat. |
|-------|----------------------|------------------------------------|------|-------|-------|------|------|
| B | A255 | <i>Anthus campestris</i> | r | 0 | 0 | | C |
| B | A060 | <i>Aythya nyroca</i> | r | 0 | 0 | | R |
| A | 1188 | <i>Bombina bombina</i> | p | 10000 | 30000 | i | C |
| B | A021 | <i>Botaurus stellaris</i> | r | 0 | 0 | | R |
| B | A396 | <i>Branta ruficollis</i> | c | 5 | 15 | i | R |
| B | A403 | <i>Buteo rufinus</i> | r | 1 | 3 | p | R |
| I | 4013 | <i>Carabus hungaricus</i> | p | 0 | 0 | | V |
| B | A030 | <i>Ciconia nigra</i> | r | 4 | 8 | i | R |
| B | A084 | <i>Circus pygargus</i> | w | 2 | 4 | p | R |
| P | 2287 | <i>Colchicum fominii</i> | p | 0 | 0 | | R |
| B | A231 | <i>Coracias garrulus</i> | r | 12 | 18 | p | R |
| P | 4091 | <i>Crambe tataria</i> | p | 0 | 0 | | R |
| B | A037 | <i>Cygnus columbianus bewickii</i> | w | 0 | 0 | | V |
| B | A038 | <i>Cygnus cygnus</i> | w | 0 | 0 | | R |
| B | A429 | <i>Dendrocoptes syriacus</i> | p | 0 | 0 | | C |
| P | 4067 | <i>Echium russicum</i> | p | 0 | 0 | | R |
| B | A026 | <i>Egretta garzetta</i> | r | 0 | 0 | | C |
| B | A379 | <i>Emberiza hortulana</i> | r | 26 | 32 | p | R |
| R | 1220 | <i>Emys orbicularis</i> | p | 600 | 900 | i | R |
| I | 6169 | <i>Euphydryas maturna</i> | p | 0 | 0 | | R |
| B | A511 | <i>Falco cherrug</i> | r | 0 | 0 | | R |
| B | A098 | <i>Falco columbarius</i> | w | 0 | 0 | | V |
| B | A103 | <i>Falco peregrinus</i> | c | 1 | 3 | i | P |
| B | A097 | <i>Falco vespertinus</i> | r | 1 | 16 | p | R |
| B | A002 | <i>Gavia arctica</i> | w | 4 | 8 | i | R |
| B | A075 | <i>Haliaeetus albicilla</i> | r | 0 | 2 | i | V |
| B | A131 | <i>Himantopus himantopus</i> | p | 25 | 35 | i | R |
| P | 4097 | <i>Iris aphylla ssp. hungarica</i> | p | 0 | 0 | | R |
| B | A022 | <i>Ixobrychus minutus</i> | r | 0 | 0 | | R |
| B | A338 | <i>Lanius collurio</i> | r | 120 | 150 | p | C |
| B | A339 | <i>Lanius minor</i> | r | 70 | 85 | p | C |
| B | A177 | <i>Larus minutus</i> | c | 0 | 0 | | V |
| B | A177 | <i>Larus minutus</i> | c | 0 | 0 | | V |
| M | 2633 | <i>Mustela eversmanii</i> | p | 0 | 0 | | R |
| B | A023 | <i>Nycticorax nycticorax</i> | r | 0 | 0 | | C |
| B | A094 | <i>Pandion haliaetus</i> | w | 0 | 0 | | R |
| B | A019 | <i>Pelecanus onocrotalus</i> | c | 0 | 0 | | R |
| B | A151 | <i>Philomachus pugnax</i> | r | 160 | 200 | i | C |
| B | A034 | <i>Platalea leucorodia</i> | c | 0 | 0 | | P |
| B | A132 | <i>Recurvirostra avosetta</i> | c | 320 | 420 | i | R |
| M | 2608 | <i>Spermophilus suslicus</i> | p | 0 | 0 | | V |
| B | A307 | <i>Sylvia nisoria</i> | r | 16 | 24 | p | C |

| Group | Code | Scientific Name | Type | Size | | Unit | Cat. |
|-------|------|---------------------------|------|------|---|------|------|
| B | A397 | <u>Tadorna ferruginea</u> | c | 1 | 3 | p | V |
| R | 1298 | <u>Vipera ursinii</u> | p | 0 | 0 | | R |

Table 6-19: Species listed in Resolution 6 and sites (Stepa Bugeacului) evaluation for them

Specifications: - Group: A =Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P =Plants, R = Reptiles
 Type: p=permanent, r=reproducing, c=concentration, w=wintering (for plant and non-migratory species use permanent);
 Unit: i=Individuals, p=pairs or other units according to the standardised list of population units and codes, in accordance with Art. 12 and 17 reporting under the Birds and Habitats Directives; Abundance categories (Cat.): C=common, R= rare, V=very rare, P=present – to fill if data quality are deficient (DD) or in addition to population size information

The fauna species existing in the studied area were monitored by the researchers of the Institute of Zoology in the scientific, and the results of the investigations are included in the monography: "Diversitatea faunei de vertebrate terestre din sectorul Comrat-Vulcănești – Colibași, Republica Moldova" (Diversity of terrestrial vertebrate fauna in the Comrat-Vulcănești – Colibași sector, Republic of Moldova), Chisinau, Republica Moldova: Centrul Editorial-Poligrafic al Universității de Stat din Moldova, 2024.

With reference to birds, recently it has been elaborated additional special study on the risk to bird species and their habitats, for the 400 kV OHL corridor: "**Avian Risk Assessment and Mitigation Report**"²³, within the project: "The Power System Development Project (PSDP)" for includes building an overhead electricity line 400 kV OHL Vulcănești – Chișinău (supported By World Bank). Thus, the Report includes the investigations in the Comrat and Cimislia district areas of the steppe.

Lot 4 (Connection with new bridge over River Prut at the Romanian border, 5km)

In this area of Lot 4 (km 213+58 – 213+69) the road crosses at 119 m - Emerald Site "Lacurile Prutului de Jos" (The Lower Prut Lakes), SiteCode: MD0000012. Below is the description of this site, habitats and target species in them, listed in EU Resolution 6.

| Site code | Site name | Site center location longitude/latitude | Surface (ha) | Number of bird species | Other species (units) | Habitat (units) | Biogeographics |
|------------|---|---|--------------|------------------------|-----------------------|-----------------|----------------|
| MD00000012 | "Lacurile Prutului de Jos" (The Lower Prut Lakes) | 28.0875/ 45.8644 | 16420,0 | 44 | 14 | 9 | STE |

Table6-20: description of the Emerald Site "Lacurile Prutului de Jos" (The Lower Prut Lakes) MD0000012

Map of the Emerald Site "The Lower Prut Lakes " (Code MD00000012) is included in the Annex 2.6.

The habitat types of European interest for which the Emerald Site "Lacurile Prutului de Jos", Code MD0000012 has been declared are the following: C1.222, C1.224, C1.225, C1.32, D.226, D4.1., D5.2, E5.4. și G1.11 .

According to the data from the investigations of the Administration of the Biosphere Reserve "Lower Prut", Part of the Emerald Site "Lower Prut Lakes", Code MD0000012 the following types of habitat were established in the area of 109 m. of the M3 Road.

²³ Source: <https://ucipe.gov.md/sites/default/files/2025-08/final-avian-risk-assesment-report-specific-for-operational-stage-of-the-400-kv-ohti-eng.pdf>

| Code | English habitat name | Description of habitat | Relation to EU Conventions and Directives |
|-----------------------|---|--|---|
| C1.32 | Free-floating vegetation of eutrophic waterbodies | Free-floating surface communities of more or less nutrient-rich waters, with <i>Lemna minor</i> , <i>Spirodela polyrhiza</i> , <i>Wolffia arrhiza</i> , <i>Salvinia natans</i> , <i>Ceratophyllum</i> spp., <i>Stratiotes aloides</i> , and communities of <i>Hydrocharition</i> , <i>Utricularion vulgaris</i> , <i>Lemnion gibbae</i> and <i>L. minoris</i> . | Resolution 4 habitat type (Bern Convention) |
| G1.11 | Riverine <i>Salix</i> woodland | <i>Salix</i> spp. scrub or arborescent formations, lining flowing water and submitted to periodic flooding, developed on recently deposited alluvion. Willow brushes are particularly characteristic of rivers originating in major mountain ranges. Shrubby willow formations also constitute an element of lowland and hill riverine successions in all major biomes, often making the belt closest to the water course. Taller arborescent willow formations often constitute the next belt landwards in riverine successions of lowland western nemoral, eastern nemoral and warm-temperate humid forest regions, and a large part of the less diverse riverine systems of the steppe zones. Vegetation of alliance of spp. Genus <i>Salix</i> , <i>Populus</i> , <i>Phalaroides</i> and <i>Urtica</i> . | Resolution 4 habitat type (Bern Convention) |

Table6-21: Established types of habitat

| Species Group | Code | Scientific Name | Population in the site | | | Unit | Cat. |
|---------------|----------------------|--------------------------------------|------------------------|------|------|------|------|
| | | | Type | Size | Max. | | |
| B | A402 | <u><i>Accipiter brevipes</i></u> | r | 0 | 0 | | R |
| B | A229 | <u><i>Alcedo atthis</i></u> | r | 0 | 0 | | C |
| B | A090 | <u><i>Aquila clanga</i></u> | p | 0 | 0 | | V |
| B | A029 | <u><i>Ardea purpurea</i></u> | r | 30 | 50 | p | R |
| B | A024 | <u><i>Ardeola ralloides</i></u> | w | 20 | 50 | p | R |
| B | A222 | <u><i>Asio flammeus</i></u> | r | 0 | 0 | | R |
| F | 1130 | <u><i>Aspius aspius</i></u> | r | 0 | 0 | | C |
| B | A060 | <u><i>Aythya nyroca</i></u> | p | 50 | 60 | p | R |
| A | 1188 | <u><i>Bombina bombina</i></u> | r | 0 | 0 | | R |
| B | A021 | <u><i>Botaurus stellaris</i></u> | p | 50 | 70 | p | R |
| B | A396 | <u><i>Branta ruficollis</i></u> | p | 0 | 0 | | R |
| B | A198 | <u><i>Chlidonias leucopterus</i></u> | p | 0 | 0 | | C |
| B | A197 | <u><i>Chlidonias niger</i></u> | r | 0 | 0 | | C |
| B | A031 | <u><i>Ciconia ciconia</i></u> | w | 400 | 600 | p | R |
| B | A030 | <u><i>Ciconia nigra</i></u> | w | 3 | 6 | p | R |
| B | A081 | <u><i>Circus aeruginosus</i></u> | r | 70 | 100 | p | R |
| B | A082 | <u><i>Circus cyaneus</i></u> | r | 10 | 15 | i | R |
| B | A231 | <u><i>Coracias garrulus</i></u> | p | 0 | 0 | | R |
| B | A122 | <u><i>Crex crex</i></u> | r | 0 | 0 | | R |
| B | A038 | <u><i>Cygnus cygnus</i></u> | p | 50 | 80 | i | P |
| B | A026 | <u><i>Egretta garzetta</i></u> | r | 30 | 35 | p | P |
| R | 1279 | <u><i>Elaphe quatuorlineata</i></u> | p | 0 | 0 | | C |
| R | 1220 | <u><i>Emys orbicularis</i></u> | p | 35 | 50 | i | R |
| F | 2484 | <u><i>Eudontomyzon mariae</i></u> | p | 0 | 0 | | V |
| B | A103 | <u><i>Falco peregrinus</i></u> | r | 0 | 0 | | V |
| B | A002 | <u><i>Gavia arctica</i></u> | c | 10 | 25 | i | R |
| B | A001 | <u><i>Gavia stellata</i></u> | r | 0 | 0 | | R |
| F | 2555 | <u><i>Gymnocephalus baloni</i></u> | r | 0 | 0 | | R |
| B | A075 | <u><i>Haliaeetus albicilla</i></u> | r | 3 | 5 | p | R |
| B | A131 | <u><i>Himantopus himantopus</i></u> | p | 0 | 0 | | R |
| B | A022 | <u><i>Ixobrychus minutus</i></u> | r | 0 | 0 | | R |
| B | A177 | <u><i>Larus minutus</i></u> | w | 0 | 0 | | V |
| M | 1355 | <u><i>Lutra lutra</i></u> | p | 0 | 0 | | R |
| B | A073 | <u><i>Milvus migrans</i></u> | r | 0 | 0 | | C |
| F | 1145 | <u><i>Misgurnus fossilis</i></u> | r | 0 | 0 | | R |
| B | A023 | <u><i>Nycticorax nycticorax</i></u> | p | 125 | 220 | p | C |
| B | A533 | <u><i>Oenanthe pleschanka</i></u> | r | 0 | 0 | | R |

| Species Group | Code | Scientific Name | Population in the site | | | | |
|---------------|----------------------|---|------------------------|------|-----|------|------|
| | | | Type | Size | | Unit | Cat. |
| B | A071 | Oxyura leucocephala | w | 0 | 3 | i | V |
| B | A094 | Pandion haliaetus | r | 5 | 10 | i | R |
| B | A020 | Pelecanus crispus | r | 2 | 8 | i | R |
| B | A019 | Pelecanus onocrotalus | p | 200 | 300 | i | R |
| F | 2522 | Pelecus cultratus | r | 0 | 0 | | R |
| B | A393 | Phalacrocorax pygmeus | p | 0 | 10 | p | R |
| B | A151 | Philomachus pugnax | p | 350 | 450 | i | C |
| B | A234 | Picus canus | p | 0 | 0 | | C |
| B | A034 | Platalea leucorodia | r | 10 | 12 | i | P |
| B | A032 | Plegadis falcinellus | w | 1 | 2 | p | V |
| B | A120 | Porzana parva | w | 0 | 0 | | R |
| B | A119 | Porzana porzana | r | 0 | 0 | | R |
| F | 5339 | Rhodeus amarus | r | 0 | 0 | | C |
| F | 1146 | Sabanejewia aurata | p | 0 | 0 | | R |
| B | A195 | Sterna albifrons | r | 5 | 15 | i | R |
| B | A193 | Sterna hirundo | p | 20 | 40 | p | R |
| B | A397 | Tadorna ferruginea | r | 0 | 0 | | V |
| I | 4064 | Theodoxus transversalis | p | 0 | 0 | | R |
| B | A166 | Tringa glareola | p | 0 | 0 | | R |
| I | 1032 | Unio crassus | p | 0 | 0 | | R |
| F | 1160 | Zingel streber | p | 0 | 0 | | R |
| F | 1159 | Zingel zingel | p | 0 | 0 | | R |

Table6-22: Species listed in Resolution 6 and sites "Lacurile Prutului de Jos" evaluation for them

Specifications: - Group: A =Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P =Plants, R = Reptiles
Type: p=permanent, r=reproducing, c=concentration, w=wintering (for plant and non-migratory species use permanent);
Unit: i=Individuals, p=pairs or other units according to the standardised list of population units and codes, in accordance with Art. 12 and 17 reporting under the Birds and Habitats Directives; Abundance categories (Cat.): C=common, R= rare, V=very rare, P=present – to fill if data quality are deficient (DD) or in addition to population size information

This sector is part of the southern extremity of the "Lower Prut" Biosphere Reserve and wetlands of international importance (Ramsar) (Site Code: MD0000012), located near Giurgiulesti. This point is located just a few tens of meters from the flow of the Prut River into the Danube River, representing a sensitive area for biodiversity on the part of the Republic of Moldova.

The ecosystem, being dominated by the Prut River, which constitutes the main hydrological axis and determines the structure of adjacent habitats. The left bank of the river is poor in vegetation, developing in places natural formations of willows (*Salix alba*, *S. fragilis*) that play a major ecological role in stabilizing the soil, reducing erosion and creating shady microhabitats, conducive to birds, amphibians and aquatic insects. At an insignificant distance from them, there are scattered specimens of *Elaeagnus angustifolia*., *Populus alba*, *Amorpha fruticosa*, *Juglans regia*.

In recent years, prolonged droughts and a drop in water levels have led to partial degradation of the banks, with visible erosion processes and a decrease in the vegetation layer. This dynamics of the hydrological regime temporarily affects the quality of habitats and the availability of resources for fauna, but maintains the natural character of the meadow as a transforming system.

The avifauna is one of the most representative components of the area. In this sector are frequently or occasionally have been observed the following species of aquatic birds: *Anas platyrhynchos*, *Ardea cinerea*, *Egretta garzetta*, *Ardea alba*, *Ardeola ralloides*, *Nycticorax nycticorax*, *Chroicocephalus ridibundus*, *Gallinula chloropus*, *Fulica atra*, *Larus michahellis*, *Chlidonias hybrida*, *Cuculus canorus*, *Columba palumbus*, *Streptopelia decaocto*, *Sturnus vulgaris*, *Hirundo rustica*, *Alcedo atthis*, *Merops apiaster*, *Upupa epops*, *Oriolus*

oriolus, *Lanius collurio*, *Pica pica*, etc. During migration periods, flocks of geese (*Anser albifrons*, *Anser anser*) and cormorants (*Phalacrocorax carbo*) can be seen above the area, which use the region as a special feeding place (gramine are loaded in the port).

Herpetofauna is represented by species adapted to the aquatic environment and sunny microhabitats on the slopes: *Natrix tessellata*, *Natrix natrix*, *Delichophis caspius*, *Lacerta agilis* and *Lacerta viridis*. These reptiles have an important ecological role in controlling amphibian and invertebrate populations.

Due to the high noise, in recent years the representatives of the Reserve have not monitored the presence of important species of mammals, only hedgehogs, foxes, rabbits and small rodents.

Scientific investigations are permanent around the "Prut de Jos" Biosphere Reserve, part of the Emerald Site "Lacurile Prutului de Jos" MD0000012. Within the administration of the Reserve there is a scientific section, responsible for monitoring the species of flora and fauna, which cooperates directly with the representatives of the scientific institutions of the Moldovas State University: Institute of Zoology, Botanical Garden (Institute), Institute of Ecology; and Geography but also with the Institute in the Forestry Field -ICAS.

The list of the most recent and important scientific publications is included in the reference list.

Also, for birds, field investigation information is included in the additional special study on the risk to bird species and their habitats, for the 400 kV OHL corridor: "**Avian Risk Assessment and Mitigation Report**"²⁴ for implementation at the operational stage, *within the project: "The Power System Development Project (PSDP)" for includes building an overhead electricity line 400 kV OHL Vulcănești – Chișinău (supported By World Bank)*. Thus, the Report includes the investigations in the Areas of Cahul district.

General conclusion:

The state of the habitats in the Emerald Sites is well investigated, and the results of these investigations are included in several monographs, scientific articles carried out by scientific institutions of the Moldova's State University: Institute of Zoology, Botanical Garden (Institute), Institute of Ecology and Geography, which is currently part of the State University of Moldova (USM) but also with the Institute in the Forestry Field -ICAS (subordinate "Moldsilva" Agency). For some NPAs, such as scientific reserves (including SR "Prutul de Jos" part of the Emerald Site "Lacurile Prutului de Jos" Cod MD0000012) the Annals of Nature are elaborated annually, which include information on scientific investigations and monitoring, general ecological status of habitats (soil, aquatic resources), temperature monitoring, atmospheric air status, and others ecological investigations of biodiversity assessment.

The habitats of the Emerald sites not along the M3 Road (Lots 1,3 and) will not be influenced with the risk of degradation or change of the areas of the target animal and plant species, with protection status at national, regional and local level, considering that only the rehabilitation works of the road will be organized.

With reference to Lot 2 of the road, there are no Emerald sites in this area, but neither are their important habitats.

The detailed description of the species of flora and fauna is provided in the sections 4.7.3. and 4.7.4. din ESIA.

²⁴ Source: <https://ucipe.gov.md/sites/default/files/2025-08/final-avian-risk-assesment-report-specific-for-operational-stage-of-the-400-kv-ohtl-eng.pdf>

6.7.2. Natural Protected Areas (NPA)

The legal bases for the creation and functioning of the fund of natural areas protected by the state, the principles, the mechanism and its mode of conservation are established by Law no. 1538/1998 on the fund of natural areas protected by the state. The total area of the fund of natural areas protected by the state constitutes 210,695.87 ha (2106.96 km²) or 5.8% (2018)²⁵ of the total territory of the country. In the period 2006-2018, the total area of protected areas of all categories increased from 4.65% to 5.8% of the total territory of the country, by creating the most important NPAs: in 2013 – the “Orhei” National Park with an area of 33,792.09 ha, in 2018 - the "Prutul de Jos" Biosphere Reserve and in a. 2021 - "Lower Dniester " National Park.

In the M3 Road are located the following NPAs:

- Biosphere reserve: “Lower Prut ” (Prutul de Jos),
- Scientific reserve: “Lower Prut ” (Prutul de Jos),
- Wetlands of international importance (RAMSAR List): “Lakes of the Lower Prut ” (Lacurile Prutului de Jos);
- Nature reserves: “Molești – Răzeni”, “Molești” and Bugeac steppe (for medicinal plants);
- Landscape reserve: “Carbuna”;
- Monument of nature- Geological and palenteological: “The Outcrop – Costești

| Name of NPA, according to Law no. 1538/1998 | Category of protected area ²⁶ | Place where it is located / including the location in the forest fund | The surface of the NPA |
|--|--|---|------------------------|
| Lot 1: (Airport I/C – Porumbrei, 34.4km) M3 Km10+000 – km44+350 | | | |
| Monuments of nature | | | |
| MNGP The Outcrop - Costești | Monument of nature- Geological and palenteological (Annex 3 of the Law 1538/ 1998) | Located: At the north from Costești village, Ialoveni district, on the left coast of Botna river valley, near the road to Mileștii Mici | 1,00 |
| Forestry Nature reserves | | | |
| NR Molești Răzeni | Forestry Nature reserves (Annex 4 of the Law No. 1538/ 1998) | Located in the forestry district Răzeni, forest Villa Molești-Răzeni, parcels 30-32; 33 | 250,70 |
| NR Molești | Forestry Nature reserves (Annex 4 of the Law No. 1538/ 1998) | Located at 2 km south from Molești village, the forestry district Răzeni, Villa Molești-Răzeni, parcel 11, parcel 12. | 5,00 |
| Landscape reserve | | | |
| LR Cărbuna | Landscape reserve (Annex 5 of the Law No. 1538/ 1998) | Located between Cărbuna village and the forestry district Zloți, Villa Milești-Răzeni, parcels 1-4, 9 | 607,00 |
| Lot 3: (Cimislia – Comrat, 12km) | | | |
| Nature reserves of medicinal plants | | | |
| Bugeac | Nature reserves of medicinal plants (Annex 4 of the Law No.1538/1998) | Located in the Comrat district West of the "Bugeac" Agricultural Enterprise | 56,0 |
| LOT 4: Giurgiulesti Ring Road, 6.2km) | | | |
| Scientific reserves | | | |
| SR | Scientific reserve (Annex 1 | Located: Slobozia Mare viilage, Cahul district, | 1691 |

²⁵ https://www.legis.md/cautare/getResults?doc_id=144295&lang=ro

²⁶ **Legend:** *MNGP*: Geological and paleontological monuments of nature; *NR*: Nature Forest reserves; *LR*: Landscape reserves;

| Name of NPA, according to Law no. 1538/1998 | Category of protected area ²⁶ | Place where it is located / including the location in the forest fund | The surface of the NPA |
|---|---|---|------------------------|
| Prutul de Jos | of the Law 1538/1998) | | |
| Biosphere reserves | | | |
| BR Prutul de Jos | Biosphere reserves (Annex 8 of the Law No. 1538/ 1998 | Located in the forestry of Forestry State Enterprise „SILVA-SUD” Cahul and „MANTA-V”. Scientific Rezere „Prutul de Jos”. 9 Localities from Cahul distict: Brînza, Cîșlița-Prut, Colibași, Crihana Veche, Giurgiulești, Manta, Slobozia Mare, Vadul lui Isac, Văleni | 14771,04 |
| Wetlands of international importance (RAMSAR List) | | | |
| Ramsar List nr.1029 Lacurile Prutului de Jos | Ramsar List (Annex 13 of the Law No. 1538/1998 | Central Environment Authority (MM), Forestry Agency "Moldsilva", SE "Apele Moldovei", local public administration authorities, other land owners | 19152,5 |

Table6-23: Description of the most important natural protected areas (NPA) in the area of M3 Road

"Carbuna" Landscape Reserve

The Cărbuna landscape reserve is located in the central part of the country, at 35 km south of Chisinau, within Codrilor Plateau, Ialoveni District. The protected area covers 607 hectares and is owned by Răzeni State Forest Enterprise (forestry department Zloti, Vila Milesti-Răzeni Forest, plots 1-4, 9). The core area is located at the boundary of two areas - forest steppe and steppe: terraced steppe plains region of the Lower Dniester and plateau Codrilor region. The reserve has a great interest in terms of vegetation and habitats diversity. Here is the contact area of Central-European forests with sub-Mediterranean forests. In Carbuna Reserve predominates Holm (*Quercus petraea*), the tall and fluffy oaks (*Quercus robur* and *Quercus pubescens*), Ash (*Fraxinus excelsior*) and Acacia (*Robinia pseudacacia*). On small surfaces are spread conifers, linden and birch. Privet shrubs are represented by Wood Itchy (*Ligustrum vulgare*), Rosehip (*Rosa canina*), Blackthorn (*Prunus spinosa*) and Hawthorn (*Crataegus curvisepala*). The coatings of herbal plants are quite varied, being found representatives of Balkan-Mediterranean flora, including Motley Tulip (*Fritillaria meleagris*), Stagber Weed (*Corydalis cava*), Bulgarian Onion (*Nectaroscordum bulgaricum*) and Pasqueflower Woolly (*Digitalis lanata*). It is common ivy that clings to tree stems up to 9 m high. Near the Zloti village was kept an evergreen sector with hornbeam. The area between the Zloti and Carbuna villages is unique in the Republic of Moldova where it meets European Hornbeam (*Carpinus betulus*).



Figure 6-15: Images from Natural Forest Reserve Carbuna (Photo authors, October, 2025)

In the area investigated along the route of the M3 road, at a depth of 10 m from the road (sensitive area), no species of flora with special national and international protection status were estimated.

Natural forest reserve Molesti - Răzeni

The Molești - Răzeni natural forest reserve is located in the central part of the country, Ialoveni district, 35 km south of Chisinau, within Cogălnicul Middle Plateau. The topography of the area is the watershed of rivers and hillsides bordering Schinoasa and Botnișoara rivers with little impact of anthropogenic processes and an average impact of natural processes. The Molești - Răzeni protected area is an area of fundamental natural forest with stands of Sessile Oak (*Quercus petraea*). Category of forestry systems is sessile oak, oak and beech in central Republic of Moldova. The Molești-Răzeni protected area belongs to Forest Enterprise Răzeni.



Figure 6-16: Images from Natural Forest Reserve Molești Răzeni (Photo authors, October, 2025)

In the Molești-Răzeni NPA 18 tree species were found. In stand prevails Sessile Oak (*Quercus petraea*). In the depressions were recorded small areas with Oak (*Quercus robur*). The spread of linden (*Tilia tomentosa*, *Tilia cordata*) and Ash (*Fraxinus excelsior*) is higher especially on plains. The Molești-Răzeni protected area includes a genetic background consisting of 200 vascular plant species, of which 18 tree species, 13 shrub species and 169 herb species. The rare and characteristic plant and animal species within the Molești-Răzeni area, listed in the Republic of Moldova Red Book 3rd edition and in the IUCN Red List.

The monument of nature Outcrops of Costești

The Costești geological and paleontological monument²⁷ of nature is located at north part of the Costești village, on the left coast of Botna River valley, near the road to Mileștii Mici. The surface of protected area is 1 ha. This monument of nature has a landscape value, but a lower value of biodiversity.



Figure 6-17: Images from the monument of nature Outcrops of Costești

Nature reserves of medicinal plants - “Bugeac”

NR Bugeac is a vegetation area located in the south part of Prut-Nistru interfluvium. Composition and structure of steppes within this zone is very diverse and 273 species of vascular plants were identified in the representative sector. Out of them, 13 species are rare, 9 are under the state protection (*Adonis vernalis*, *Asparagus officinalis*, *Astragalus dasyanthus*, *A. paescens*, *Carex liparicarpos*, *Helichrysum arenarium*, *Stipa*

²⁷ Source: <http://lex.justice.md/viewdoc.php?action=view&view=doc&id=311614&lang=1>

lessingiana, *Colchicum fominii*, *Ephedra distachya*), and 3 are included into the Red Book of Moldova.



Figure 6-18: Images from the Nature reserves of medicinal plants “Bugeac” Nature reserves of medicinal, plants “Bugeac” (Photo authors, October 2025)

Scientific (natural) reserve „Prutul de Jos” (“Lower Prut”)

The "Lower Prut" Reserve is located in the southwestern part of the Republic of Moldova, along the lower course of the Prut River. The seat of administration is located in Slobozia Mare, Cahul district. 20 km to the north is Lake Manta, and 25 km to the south, Lake Brateş (Romania). The universal value of the natural heritage has been recognized by declaring it a wetland of international importance, especially for waterfowl habitat - Ramsar Convention, "Lower Prut Lakes" (Position 1029) and included in the "Lower Prut" Biosphere Reserve, part of UNESCO since 2019.

The reserve is represented by over 220 species, of which 47 are species included in the Red Book of the RM, 2015 and taken under international protection. On the river and lakes, part of the Reserve, depending on the time of year, you can observe birds such as egrets, cormorants, gypsies, seagulls, ducks, geese, swans, marsh terns, corrodors, lizards, nags, herons, as well as colonies of hundreds or even thousands of pelicans. On the territory of the Reserve there are 7 species of reptiles or 50% of the total number of species in the Republic. Among the rare species: the pond turtle (*Emys orbicularis*) and the yellow-bellied snake (*Coluber caspius*). Amphibians are represented by 9 species, the rare species – the brown field frog (*Pelobates fuscus*). The portion of the route Gârla Năvodului - Gârla Rotarului is specific to the species of meadow plants and reedbeds.

The genofund of flora is represented by 314 taxons, of which trees and shrubs - 21, lianas - 5 and vascular plants - 288. It is significant that 9 species of rare plants grow in the reserve, of which 6 species are included in the Red Book of the Republic of Moldova: *Nymphaea alba* L., *Trapa natans* L, *Salvinia natans* (L.) All, *Thelypteris palustris* Schott, *Vitis sylvestris* C. C. Gmel., *Cyperus glomeratus* L.



Figure 6-19: Images from the Scientific (natural) reserve „Prutul de Jos” (“Lower Prut”)

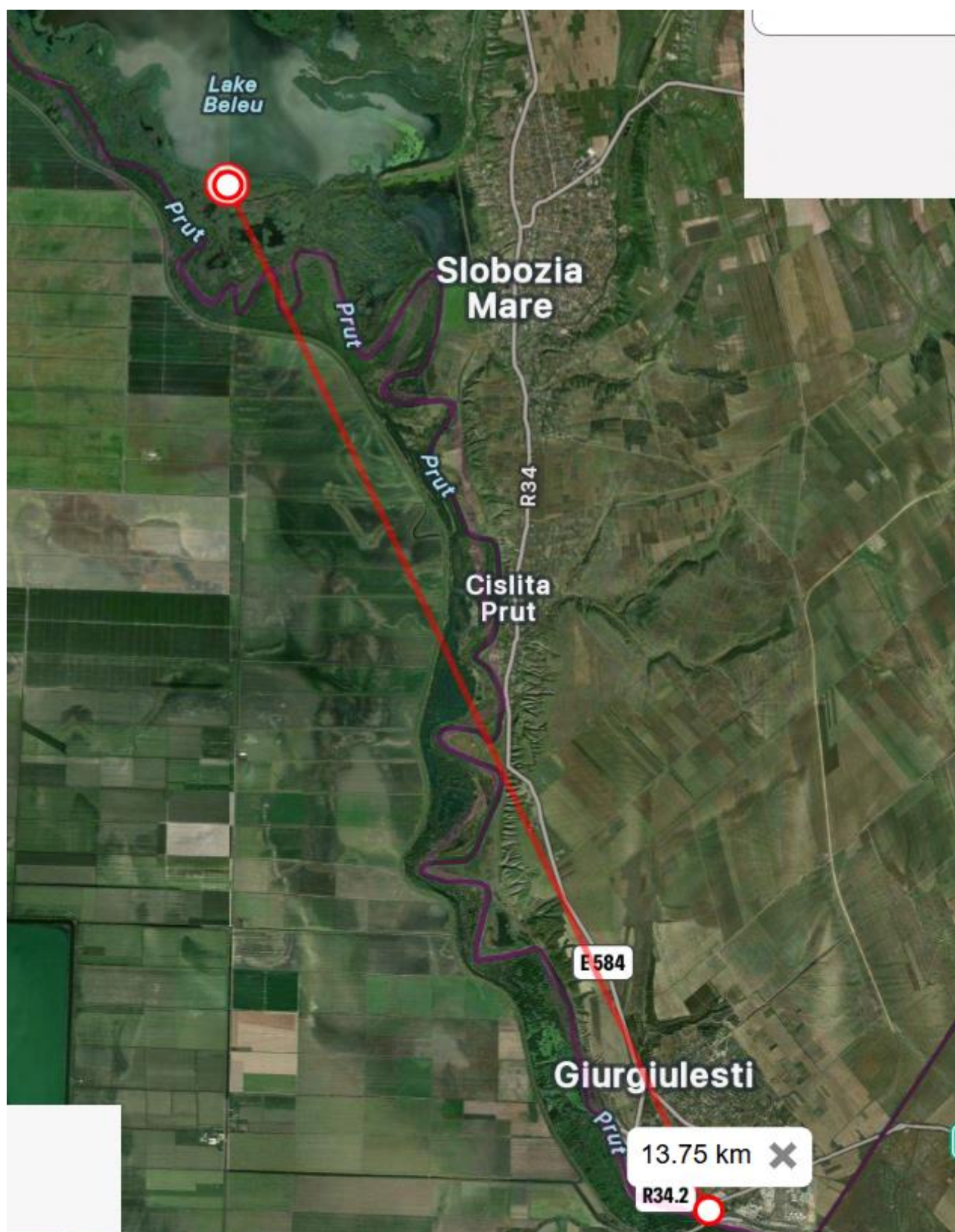


Figure 6-20: Investigated area

In the area investigated along the route of the M3 road, at a depth of 100 m from the road (sensitive area), no species of flora with special national and international protection status were estimated.

6.7.3. Fauna

The diversity of wildlife fauna species that populate the RM territory is also relatively rich. The Vertebrate fauna includes: 70 species of mammals, 281 species of birds, 14 species of reptiles. The ichthyofauna is very diverse, includes numerous endemic and relict species that inhabit the basins of the Danube-Prut and Black Sea River Basin District (including the Prut River, a tributary of the Danube), being represented by 56 species and subspecies of fish attributed to 14 families. The invertebrate fauna comprises about 15,000 species, including 13,000 species of insects.

Fauna from area of M3 Road

The diversity of fauna in the Central-Southern area includes mammals, birds, reptiles, amphibians, fish, and constitutes 285 species. Most of these species are found in the southern part – the Reserve; Take the Lower Prut Biosphere (Emerald Site "Lacurile Prutului de Jos" (The Lower Prut Lakes), Site Code: MD0000012) The largest class of vertebrate animals is that of birds, which number about 192 species, or 68.1% of the total number of species. Of the mammals, 40 species or 54.8% of the total number of species in the Republic were recorded. Reptiles are presented with 7 species or 50% of the total number of reptile species in the Republic, and amphibians 9 species of amphibians or 69.2% of the number of species in the Republic. The ichthyofauna consists of 27 species that, for the most part, arrive from the Danube and the Prut during the breeding period. The species status of wildlife animals', representative and protected by EU resolution 6 are described for each Emerald Site in the M3 Road area.

The list of representative fauna species, which have the area of the road route area, is presented in the Annexes 2.1 – 2.3.

Specific fauna for the construction activities for rehabilitation of the M3 Road will not have an important impact on the species of fauna existing in the project site.

Mammals

The most important species of mammals in the area of interest of the M3 Road are found in the NPA: Molești Rezeni" and "Cărbuna" and the Ramsar Wetland "Prutul de Jos".

NPA "Molești Rezeni" is populated by 28 species of mammals, of which are mostly common species: *Erinaceus europaeus*, *Talpa europaea*, *Lepus europaeus*, *Apodemus agrarius*, *Apodemus sylvaticus*, șoarece-gulerat, *Apodemus flavicollis*, *Iethionomys glareolus*, *Nyctalus leisleri*, *Vulpes vulpes*, *Capreolus capreolus*, *Meles meles*, *Martes foina*. In the last 10 years, the wolf (*Canis lupus*) and the jackal (*Canis aureus*) are often present in the area.




Some of these species (in particular *Capreolus capreolus*, *Lepus europaeus*, *Sus scrofa*) are of hunting interest but also poaching. The number of coated animals has increased a lot in the last 10 years and causes damage to agricultural land and adjacent forests.

In the NPA - RAMSAR wetland area Lower Prut "Prutul de Jos" are identified 34 species of mammals (47.2% of mammals identified in Moldova): of order Rodentia 41.2 %, order Carnivora 23.5% and order Insectivora 14.7%.

The following species of mammals included in the Red Book of the Republic of Moldova (2015) are found: *Lutra lutra*, *Mustela lutreola*, *Mustela erminea*, *Felis silvestris*, *Crocidura leucodon*.

Amphibiotic species (such as *Lutra lutra* and *Mustela lutreola*) found on the territory of the reserve could migrate from Danube Delta, due to small distance between these two protected areas. The conservation problems of *Mustela lutreola*, mainly associated with loss and degradation of habitat, have attracted national and international attention.

Among the species with protection status, especially included in the Red Book of the Republic of Moldova, 3rd ed., the following species of mammals are found in the NPA Molești Rezeni", "Cărbuna" and Lower Prut "Prutul de Jos" are included in the table below.

| Protected by | Description | Picture |
|---|--|---|
| <i>Martes martes/ European pine marten/ Jder-de-pădure</i> | | |
| Protected by: <ul style="list-style-type: none"> • Annex IV of EU Habitats Directive • Annex II: strictly protected fauna species of the Bonn Convention Annex II of CITES | <p>It is a vulnerable species and has been less common in recent years in the central area of Moldova. It lives in hollows and nests on trees. Martes is found in the NPA "Molești Rezeni" and "Carbuna", and the number of animals varies depending on the climatic conditions and the feeding habits. The breeding period takes place around mid-summer, in the months of July-August. During this period, it is recommended to be monitored by an environmental/ biodiversity specialist during the organization of the road construction works, in the segment of the road Lot 1 (next to NPA Molești Rezeni" and "Carbuna").</p> |  |
| <i>Felis silvestris/European wildcat /Pisică-sălbatică</i> | | |
| Protected by: <ul style="list-style-type: none"> • Annex IV of EU Habitats Directive • Annex II: strictly protected fauna species of the Bonn Convention Annex II of CITES | <p>It is an endangered species and has been less common in recent years in the central area of Moldova. Felis are known from human dominated landscapes where grazing is the dominant form of agriculture and, therefore, land use is not intensive. They are also known from scrublands, riparian habitats. Felis is found in the NPA "Molești Rezeni", "Carbuna", and Low Prut. Breeding in wild cats occurs at different times of the year, depending on local climate, but more often breeding occurs in late winter (January to March) and births occur in the spring, usually in May. During this period, it is recommended to be monitored by an environmental/ biodiversity specialist during the organization of the road construction works, in the segment of the road Lot 1 (next to NPA Molești Rezeni" and "Carbuna" and Lowest Prut).</p> |  |
| <i>Lutra lutra/Eurasian otter /Vidra europeană</i> | | |
| Protected by: <ul style="list-style-type: none"> • Annex II of EU Habitats Directive • Annex II: strictly protected fauna species of the Bern Convention Annex I of CITES | <p>This Specie occur agricultural areas, cropland Grassland, heathland and shrub, rivers and transitional waters, woodland and forest. The length of the territory depends on the density of food available and the width of the water suitable for hunting. Reproduction can be at any time of the year, depending on the climate. It is recommended to visualize the wet places, near the Prut and other wetlands, bridges before organizing the works on site, especially in the Lot 4 of the site (Low Prut area, Belec and Manta Lakes). According to data from researchers from the Institute of Zoology, the number of animals began to increase only in the last 5 years, after the disappearance of <i>Mustela lutreola</i>.</p> |  |
| <i>Mustela lutreola/ European mink/ Nurca europeană</i> | | |





| Protected by | Description | Picture |
|---|---|--|
| Protected by: <ul style="list-style-type: none"> • Annex II of EU Habitats Directive • Annex II: strictly protected fauna species of the Bern Convention Annex II of CITES | <p>The European mink is listed by the IUCN as Critically Endangered due to an ongoing reduction in numbers, having been calculated as declining more than 50% over the past three generations. It is an endangered species and has been less in recent years in the South area of Moldova. According to the data of researchers from the Institute of Zoology, in the last 5 years it has not been found in the Low Prut area in the Republic of Moldova.</p> <p>However, it is recommended to monitor the area (Lot 4 – new constriction Road, nearly Prut River zone), avoiding the possibility of the appearance of <i>Mustela</i>.</p> |  |
| <i>Mustela erminea</i>/Stoat /Hermină | | |
| Protected by: <ul style="list-style-type: none"> • Annex III: strictly protected fauna species of the Bern Convention Annex III of CITES | <p>Stoats live alone and are territorial. After mating in the summer, the kits will not be born until the following spring. The stoat also lives in old and rotting stumps, under tree roots, in heaps of brushwood, haystacks, in bog hummocks, in the cracks of empty mud buildings, in rock piles, rock clefts, and even in magpie nests. According to data from researchers from the Institute of Zoology, the number of animals began to increase only in the last 5 years, after the disappearance of <i>Mustela lutreola</i>, special in Prut River, Belec and Manta Lakes. It is recommended to visualize the wet places, near the Prut and other wetlands, bridges before organizing the works on site, especially in the Lot 4 of the site (Low Prut area.).</p> |  |
| <i>Crocidura leucodon</i>/ Bi-coloured white-toothed shrew/Chițcan de câmp | | |
| Protected by: <ul style="list-style-type: none"> • Annex III: strictly protected fauna species of the Bern Convention | <p>It is a nocturnal species and feeds on insects and other small creatures. The habitat of this shrew is pastureland, cultivated fields, gardens, hedgerows, piles of rubble and rubbish heaps. It sometimes seeks shelter in buildings in winter and avoids damp locations. Breeding takes place between April and September and there may be two to four litters in a year. A nest of dried grasses is constructed in a concealed position. According to data from researchers from the Institute of Zoology, the number of animals began to increase in the last 10 years, special in Prut River, Belec and Manta Lakes, but also other water bodies. From that reason this species is recommended to be excluded from the Red Book of the RM, as a common species. It is recommended to visualize the wet places, near the Prut and other wetlands, bridges before organizing the works on site, especially in the Lot 4 of the site (Low Prut area.).</p> |  |

Table6-24: Description of the mammal's species with protection status and the areal near the M3 Road

According to the recommendations of the researchers from the Institute of Zoology, from the bat species, it is important to attract a more particular attraction to the species: *Myotis dasycneme*, *Myotis daubentonii*, *Plecotus austriacus*, listed in the Red Book (RB) of the Republic of Moldova (2015) and have EU protection status.

| Name of species | Protected status of the species | Imagines |
|---|--|---|
| <i>Myotis dasycneme</i>/ The pond bat/ Liliac-de-iaz | <p>Near Threatened (<i>IUCN</i>) <i>Protected by EU:</i></p> <ul style="list-style-type: none"> • Annex II of EU Habitats Directive • Annex II: strictly protected fauna species of the Bern Convention • Annex II: of the Bonn Convention • EUROBATS <p>Endangered (EN) according <i>RB of the RM</i></p> |  |



| Name of species | Protected status of the species | Images |
|---|--|---|
| Myotis daubentonii/ Daubenton's bat / Liliac-de-apă | Near Threatened (IUCN) <i>Protected by EU:</i> <ul style="list-style-type: none"> • Annex IV of EU Habitats Directive • Annex II: strictly protected fauna species of the Bern Convention • Annex II: of the Bonn Convention • EUROBATS Vulnerable (VU) according RB of the RM |  |
| Plecotus austriacus / Grey long-eared bat / Liliac-urechiat-brun | Near Threatened (IUCN) <i>Protected by EU:</i> <ul style="list-style-type: none"> • Annex IV of EU Habitats Directive • Annex II: strictly protected fauna species of the Bern Convention • Annex II: of the Bonn Convention • EUROBATS Endangered (EN) according <i>RB of the RM</i> |  |

Table6-25: Bat species with the areal near the M3 Road





At the analysis stage of the project area, these animals were not visualized. However, it was found that the places that can become a refuge for these species are all bridges along the M3 route. Thus, it is recommended to pay close attention to the examination of bridges, at the beginning of the works, in order to reduce the risk to bat species.

Amphibians and Reptiles

Within the area of interest (Lot 4 Lowest Prut) total of 5 species of reptiles (1 tortoise, 3 snakes, 1 lizards) and 6 amphibian species were observed. In the area of Lot 1- NPA Molesti - Rezeni and Carbuna) is area of habitat for 4 species of reptiles (*Lacerta viridis*, *Triturus cristatus*, *Anguis fragilis*, *Coronella austriaca*) and 3 amphibian species (*Bombina bombina*, *Bufo viridis* and *Hyla arborea*)

Amphibian species, must be monitored in all aquatic and palustric ecosystems, marshes (especially in Lot 4 - nearly Lowest Prut) and in places where there are bridges, swamps and other wetlands in all M3 road lots.

As the precise distribution of *Emys orbicularis* (L.) and rare snakes species present in the South and Centre Moldova is still considered the be subject to as monitoring during the construction period by an environmental/biodiversity specialist employed by the Constructor Company.

| Species | Familia | Red Book of RM | Law nr. 1538/1998 | IUCN | EU Protected Status | Images |
|--------------------------------------|----------------|----------------|-------------------|------|---|---|
| AMPHIBIA | | | | | | |
| <i>Bombina bombina</i> (L.) | Discoglossidae | • | V | + | Annex II of EU Habitats Directive Annex II: of the Bern Convention |  |
| <i>Bufo viridis</i> Laur | Bufonidae | + | + | - | Annex IV of EU Habitats Directive Annex II: of the Bern Convention |  |
| <i>Hyla arborea</i> (L.) | Hylidae | • | V | - | Annex IV of EU Habitats Directive Annex II: of the Bern Convention |  |
| <i>Rana lessonae</i> Camerano | Ranidae | - | - | - | Annex IV of EU Habitats Directive Annex II: of the Bern Convention |  |








| Species | Familia | Red Book of RM | Law nr. 1538/1998 | IUCN | EU Protected Status | Imagines |
|---|------------|----------------|-------------------|------|--|---|
| <i>Rana ridibunda</i> Pall. | Ranidae | - | - | - | Annex IV of EU Habitats Directive |  |
| <i>Rana temporaria</i> | Ranidae | • | V | - | Annex V of EU Habitats Directive Annex III: of the Bern Convention |  |
| <i>Emys orbicularis</i> (L.) | Emydidae | • | V | CR | Annex II of EU Habitats Directive Annex II: of the Bern Convention CITES |  |
| <i>Lacerta agilis</i> L. | Lacertidae | - | - | - | Annex IV of EU Habitats Directive Annex II: of the Bern Convention |  |
| <i>Coluber jugularis</i> | Colubridae | • | II | CR | Annex IV of EU Habitats Directive Annex II: of the Bern Convention |  |
| <i>Natrix natrix</i> (L.) | Colubridae | - | - | - | Annex II: of the Bern Convention |  |
| <i>Natrix tessellata</i> (Laur.) | Colubridae | - | - | - | Annex IV of EU Habitats Directive Annex II: of the Bern Convention |  |











Table6-26: Amphibia and Reptilia species with the areal near the M3 Road

Birds

Important areas for bird's species

Due to geographic positioning and the presence of diverse habitats on the territory of the RM, optimal conditions area ensured for a big number of species of birds, many of them being critically endangered and vulnerable not only on the territory of the RM, but also at the European and world level. About 281 species of birds, of which 104 are migratory aquatic species are reported in the RM. The status of birds' species in the RM, registered at the international level in the Red List of IUCN, sets forth 3 Endangered species, 7 Vulnerable species and 5 Near threatened species. The 3rd edition of the Red Book of the Republic of Moldova (2015) includes 62 endangered and vulnerable species of birds from 12 orders. The list and status of birds' species in the RM included in the IUCN List 3.1 is included in Table no.4-16

The main species of endangered birds, the area of which extends near the area of the M3 Road, especially in the steppe area of (NPS: "Molești-Rezeni", "Molești", Emerald site "Bugeac steppe"), are: Northern goshawk (*Accipiter gentilis* L.) Eurasian sparrowhawk (*Accipiter nisus* L.), common buzzard (*Buteo buteo* L.), common kestrel (*Falco tinnunculus* L.), European honey buzzard (*Pernis apivorus* L.), short-toed eagle (*Circus gallicus* Gm), hen harrier (*Circus cyaneus* L.), Montagu's harrier (*Circus pygargus* L.), lesser spotted eagle (*Aquila pomarina* L.), golden eagle (*Aquila chrysaetos* L.), booted eagle (*Hieraaetus pennatus* Gm.), saker falcon (*Falco cherrug* L.), red-footed falcon (*Falco vespertinus*) and stock Dove (*Columba oenas* L.), their protection status and image being shown in the table below.

| Description | Picture | Description | Picture |
|---|---|---|---|
| Booted eagle (<i>Hieraaetus pennatus</i> L.) Status: RB of the RM, CITES (Annex II), Bird Directive (Annex 1), Bern Convention (Annex II), CMS (Annex II) It is a species that prefers as a habitat not very dense forest bodies, interspersed with open meadows. It nests. |  | Lesser spotted eagle (<i>Aquila pomarina</i> L.) Status: RB of the RM, CITES (Annex II), Bird Directive (Annex 1), Bern Convention (Annex II), CMS (Annex II) As a habitat, it prefers nesting forests and pastures/meadows and agricultural lands for feeding. |  |
| Golden eagle (<i>Aquila chrysaetos</i> L.) Status: RB of the RM, CITES (Annex II), Bird Directive (Annex 1), Bern Convention (Annex II), CMS (Annex II) It is a species that prefers a habitat with not very dense wooded areas, flat areas and hilly and rocky pastures. |  | Saker falcon (<i>Falco cherrug</i> L.) Status: RB of the RM, CITES (Annex II), Bird Directive (Annex 1), Bern Convention (Annex II), CMS (Annex II) It is a species that prefers as a habitat illuminated forest bodies and rocky slopes and on the electric pillars in the southern part of the RM. |  |
| European honey buzzard (<i>Pernis apivorus</i>) Status: RB of the RM, CITES (Annex II), Bird Directive (Annex 1), Bern Convention (Annex II), CMS (Annex II) As a habitat, it prefers deciduous and mixed forests and river meadows, hayfields and agricultural lands for food. It migrates from the RM in September |  | Short-toed eagle (<i>Circetus gallicus</i>) Status: RB of the RM, CITES (Annex II), Bird Directive (Annex 1), Bern Convention (Annex II), CMS (Annex II) It nests in trees and rocks. Its favourite food is snakes, even venomous ones |  |
| Montagu's harrier (<i>Circus pygargus</i> L.) Status: RB of the RM, CITES (Annex II), Bird Directive (Annex 1), Bern Convention (Annex II), CMS (Annex II) It is a species that prefers wetlands. It can also be found in steppes, agricultural lands. It nests in wetlands. |  | Hen harrier (<i>Circus cyanetus</i> L.) Status: RB of the RM, CITES (Annex II), Bird Directive (Annex 1), Bern Convention (Annex II), CMS (Annex II) As a habitat, it prefers meadows / pastures, but also swampy areas, agricultural lands. Winter in open areas |  |
| Common buzzard (<i>Buteo buteo</i> L.) Status: RB of the RM, CITES (Annex II), Bird Directive (Annex 1), Bern Convention (Annex II), CMS (Annex II) As a habitat, it prefers forests, plains, pastures / meadows and agricultural lands. |  | Common kestrel (<i>Falco tinnunculus</i> L.) Status: RB of the RM, CITES (Annex II), Bird Directive (Annex 1), Bern Convention (Annex II), CMS (Annex II) It nests in bright habitats, such as pastures or farmland, orchards. It can also nest in localities |  |
| Northern goshawk (<i>Accipiter gentilis</i>) | | Sparrowhawk (<i>Accipiter nisus</i> L.) | |





| Description | Picture | Description | Picture |
|---|---|---|---|
| <p>Status: RB of the RM, CITES (Annex II), Bird Directive (Annex 1), Bern Convention (Annex II), CMS (Annex II)</p> <p>As a habitat, it prefers forests with large meadows and adjacent open spaces, plains, meadows bordered by hedges, swamps and lakes with forested banks</p> |  | <p>Status: RB of the RM, CITES (Annex II), Bird Directive (Annex 1), Bern Convention (Annex II), CMS (Annex II)</p> <p>It is a widespread species in hilly forests and very rarely in low altitude areas. It occurs more frequently in winter</p> |  |
| Red-footed falcon (<i>Falco vespertinus</i>) | | Stock Dove (<i>Columba oenas</i> L.) | |
| <p>Status: RB of the RM, CITES (Annex II), Bird Directive (Annex 1), Bern Convention (Annex II), CMS (Annex II)</p> <p>As a habitat, it prefers forests with large meadows and orchards near the rivers. Summer species, it nests in the Republic of Moldova</p> |  | <p>Status: RB of the RM, CITES (Annex II), Bird Directive (Annex 1), Bern Convention (Annex II), CMS (Annex II)</p> <p>Summer bird. They make their nests in tree hollows and holes in the limestone walls of rivers or use nesting nests.</p> |  |

Table6-27: Endangered bird species with the areal near the M3 Road

These species of birds are rare, or very rare in the Republic of Moldova, they often appear only for a few days and less often when they reproduce, especially in periods with favourable climate and enough food for them.

Birds' migration routes

RM is crossed by three migration segments: Sarmatic, Pontic and East-Elbic, which represent the main East-European migration ways for wild birds.

In the southern part of Moldova, the three routes get undercrossed, hence being the zone registering the most intense migration in the country. Recent research shows that during this period of time, the lakes in the country host about 23 species of birds, over 40.000 birds/year.

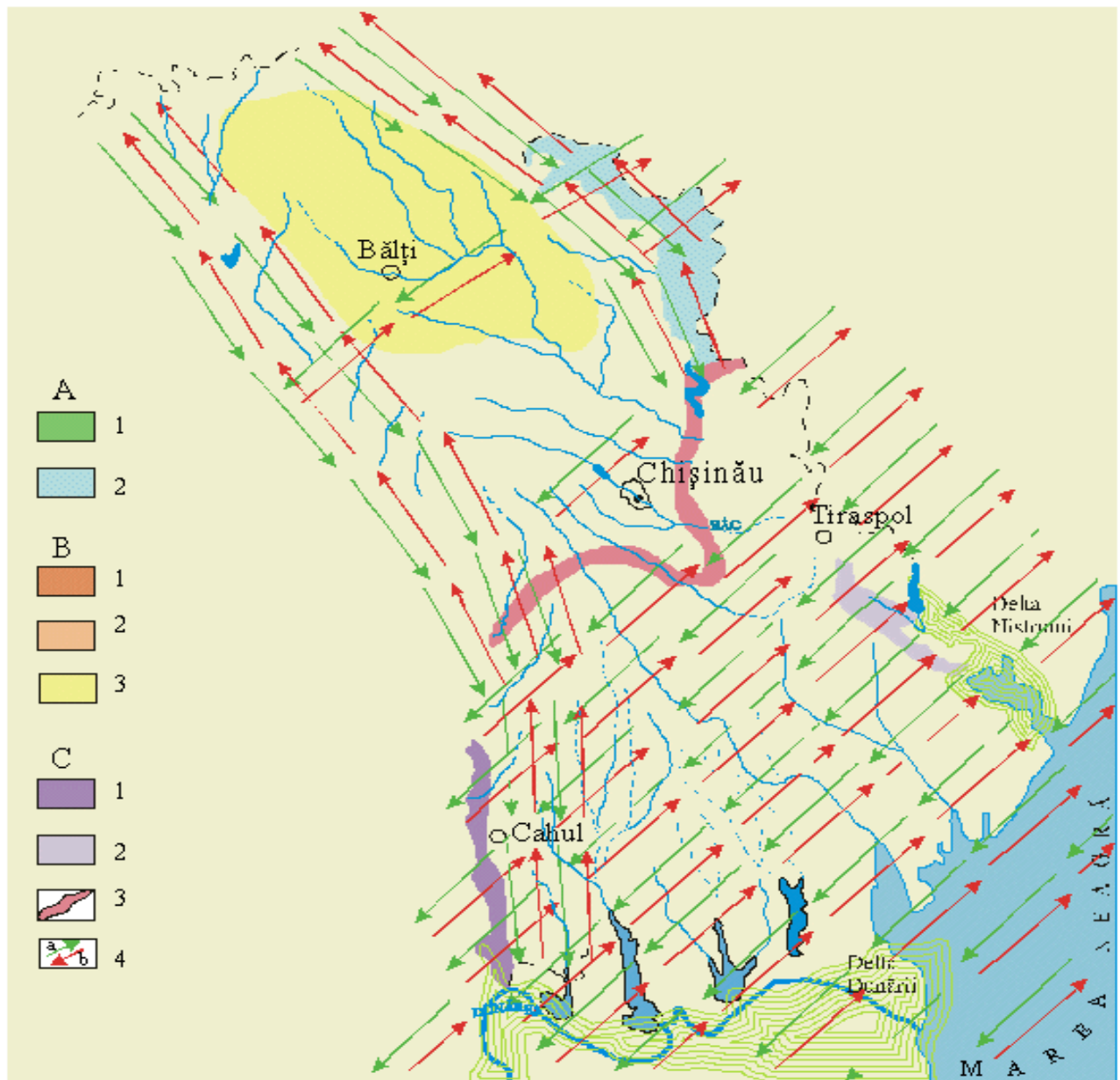


Figure 6-21: Bird migration routes

Legend: A - Steppe Forest area: forest zoogeographic sectors: 1 - Codrii, 2 - Râbnîța; B - Steppe area: steppe zoogeographic sectors: 1 - Bugeac, 2 - Tiraspol, 3 - Bălți; C - Interzonal zoogeographic sector: 1 - Lower Prut, 2 - Lower Dniester, 3 - Interzonal boundary, 4 - migratory flow of birds: a) autumn, b) spring.

According to the Institute of Zoology of RM monitoring data, organized during the observation period from autumn to summer, in recent years, were observed in the South part of RM, the average number of birds observed is as follows:

- **in the spring/summer/early autumn period:**
 - 55 bird species - in aquatic, semi-aquatic and palustric ecosystems
 - 72 bird species - in forest, steppe and semi-steppe ecosystems
- **in the autumn-winter/early spring period:**
 - 23 bird species - in aquatic, semi-aquatic and palustric ecosystems
 - 37 bird species - in forest, steppe and semi-steppe ecosystems


The complete list of bird migratory species is included in the Annex no. 2.4

This results from the considerations that the attractive places for nesting and long-term parking are the following:

- In the area of Lot 4 with have only 119 km in the zone of Emerald Site "Lower Prut Lakes". But in this Emerald Site there are more several attractive areas for bird breeding - Beleu Lake, located at a distance of 9 km and Manta Lake, at a distance of 30 km from the road construction area, where there are colonies of birds, especially habitat of aquatic birds (pelicans, swans, cormorants, ducks, geese, etc.) for a long-term refuge during their stay in the migration period in the RM;
- In the area of Lot 1 - Emerald site "Carbuna" (2 meters during the roads) and "Molesti-Rezeni" (780 m during the roads) of zone – there are bodies of forests with places in the background of the forest with hollow trees, quiet areas for breeding.
- In the area of Lot 2 - They are just grey lands, all the trees have already been deforested, so it is not an area of interest for biodiversity and bird monitoring.
- In the area of Lot 3 - Emerald site "Bugeac Steppe" (500 meters intersected by the road and some 330 meters during the roads) – in this zone

Fish

A number of 23 fish species are living in the Beleu Lake and most of them come for reproduction from the Danube River or Prut River. Two species are important for conservation, being included in the Red Book of Moldova (*Hucho hucho* and *Umbra umbra*, *Leuciscus idus*). Economically valuable species are *Abramis brama*, *Rutilus rutilus*, *Cyprinus Carpio*, *Stizostedion lucioperca*, *Silurus glanis*, *Alosa kessleri pontica*, *Esox lucius*.

| Protected by | Description | Picture |
|--|--|---|
| <i>Hucho hucho/Huchen/Lostrită</i> | | |
| Protected by: <ul style="list-style-type: none"> • Annex III of EU Habitats Directive • Annex II: strictly protected fauna species of the Bern Convention | <p>Critically endangered species In RM. The huchen is endemic to the Danube basin where the remaining population is threatened primarily by river damming, resulting in habitat fragmentation and loss through river impoundment and disruption of the longitudinal continuity of rivers, cutting away fish from its spawning grounds, with overfishing and fisheries mismanagement as an additional issue in some area of our country. It is important to monitor at the construction stage, not to allow the pollution of the waters of the Prut River (Lot 4) with oil in order to have a negative impact on fish reproduction.</p> |  |
| <i>Umbra kramery/ European Mud-minnow/Tigănuș</i> | | |
| Protected by: <ul style="list-style-type: none"> • Annex II of EU Habitats Directive • Annex II: strictly protected fauna species of the Bern Convention | <p>It is endangered species in RM and Vulnerable (IUCN) within areal in the Danube and Dniester river drainage basins. It is a large-scale loss of wetland habitat, from agricultural impact, sanitation, climate change, human activity. It is important to monitor at the construction stage, not to allow the pollution of the waters of the Prut River (Lot 4) with oil in order to have a negative impact on fish reproduction.</p> |  |
| <i>Leuciscus idus /The Ide/Văduviță</i> | | |


| Protected by | Description | Picture |
|--|--|---|
| Protected by: <ul style="list-style-type: none"> • Annex III of EU Habitats Directive Annex II: strictly protected fauna species of the Bern Convention | It is Vulnerable species in RM . The areal is a species of freshwater and can be found in larger rivers, ponds, and lakes (Manta ponds, Beleu lake in the lower Prut area). It is important to monitor at the construction stage, not to allow the pollution of the waters of the Prut River (Lot 4) with oil in order to have a negative impact on fish reproduction. |  |

Table6-28: Fish species with the areal near the M3 Road

Invertebrates

In the Republic of Moldova, the fauna of invertebrates - (Insects Order) comprises 39 families, 58 genera and 65 species. In different ecosystems and structures, invertebrate complexes are characterised by their large abundance, variety of species and species groups. The protection of bees and other melliferous species of insects is of great importance, according to international treaties on Biodiversity and the EU Habitats Directive. In the Central - South Part of Moldova (including the Project Area) there are 2 CR invertebrates fauna species (*Calosoma sycophanta*, *Porthimidius austriacus*, 2 VU species (*Medon rufiventris* and *Ampedus sinuatus*), 8 rare species, 20-abundant and 36 common species.²⁸

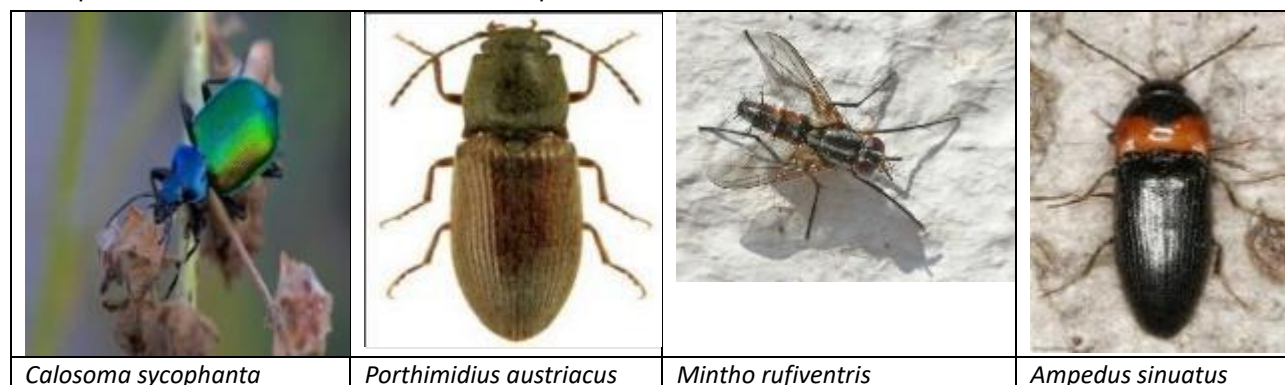


Figure 6-22: Invertebrate species with the area near the M3 Road

Melliferous Insects (honey and others)

In the Republic of Moldova, there is a large number of *melliferous species of insects*. Most widely spread species of pollinators in the Republic of Moldova are shown in Annex 2-4.

In the RM, there are a large number of invertebrate species: (CR), (EN) and (VU), which have been included into the 3rd Edition of the Red Book of the Republic of Moldova and are important for plants' pollination.

The largest ones come from the Apidae fam. (13 Spp.) - Ord. Hymenoptera; fam. Carabidae (8 Spp.) and fam. Cerambycidae (6 Spp.) – Ord. Coleoptera and fam. Nymphalidae (8 Spp.) – Ord. Lepidoptera Species²⁹

The honeybee species are protected in the Rezeni and Carbuna Forests (Lot 1) by installing beehives and creating acacia plantations around them on an area of 313.04 ha (15% of the area of the stands) and linden 22.9 ha (1% of the area of the stands). In the climatic conditions, as well as the existence of forests with the significant participation of the neighboring agricultural lands and meadows/meadows, they allow the breeding

²⁸ Source: Monography "Lumea Animală a Moldovei. Volume 1. "Nevertebrate" (The Animal World of Moldova. Invertebrates) (Stiinta, 2007)

²⁹ Source: Red Book of the Republic of Moldova (the 3rd Edition) of the core Orders, in line with IUCN Categories

of bees for the production of honey and other beekeeping products on the territory of the Sil-Rezeni Forest.

Special constructions for the protection of animals

The project provides for a bridge for animals with dimensions of 4.0x2.5m at km **3+395 (13+395)**.

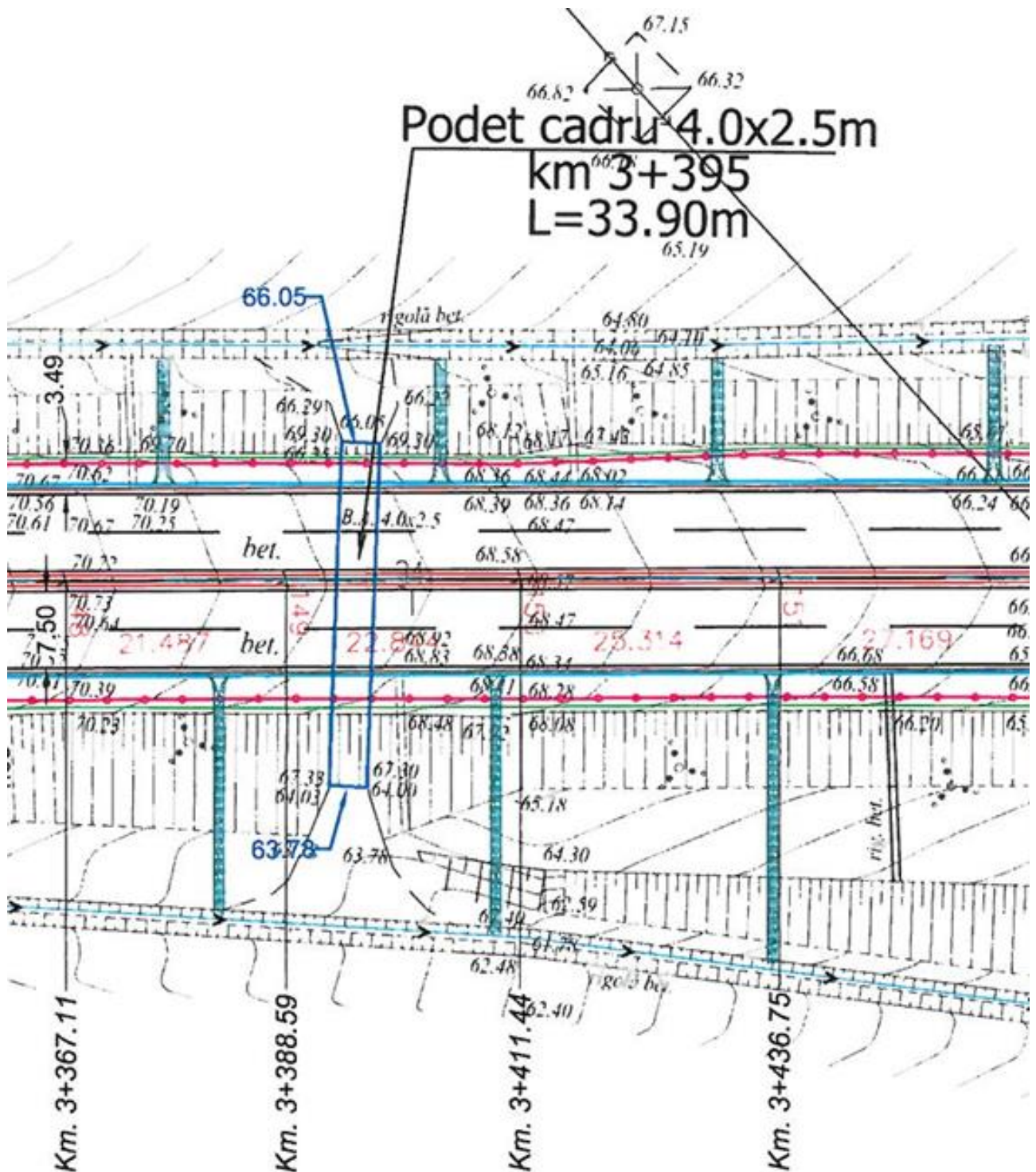


Figure 6-23: Plan of the bridge 3+395 (13+395 , which can be used by wild animals

At km 5+767 there is a small rectangular bridge with parameters 4.0 x 2.5m also intended for the passage of

cattle (photo), which is also perfect for the passage of wild animals. The length of the bridge is 27.7m.



Figure 6-24: Existing bridge (km 5+767), which can be used by animals

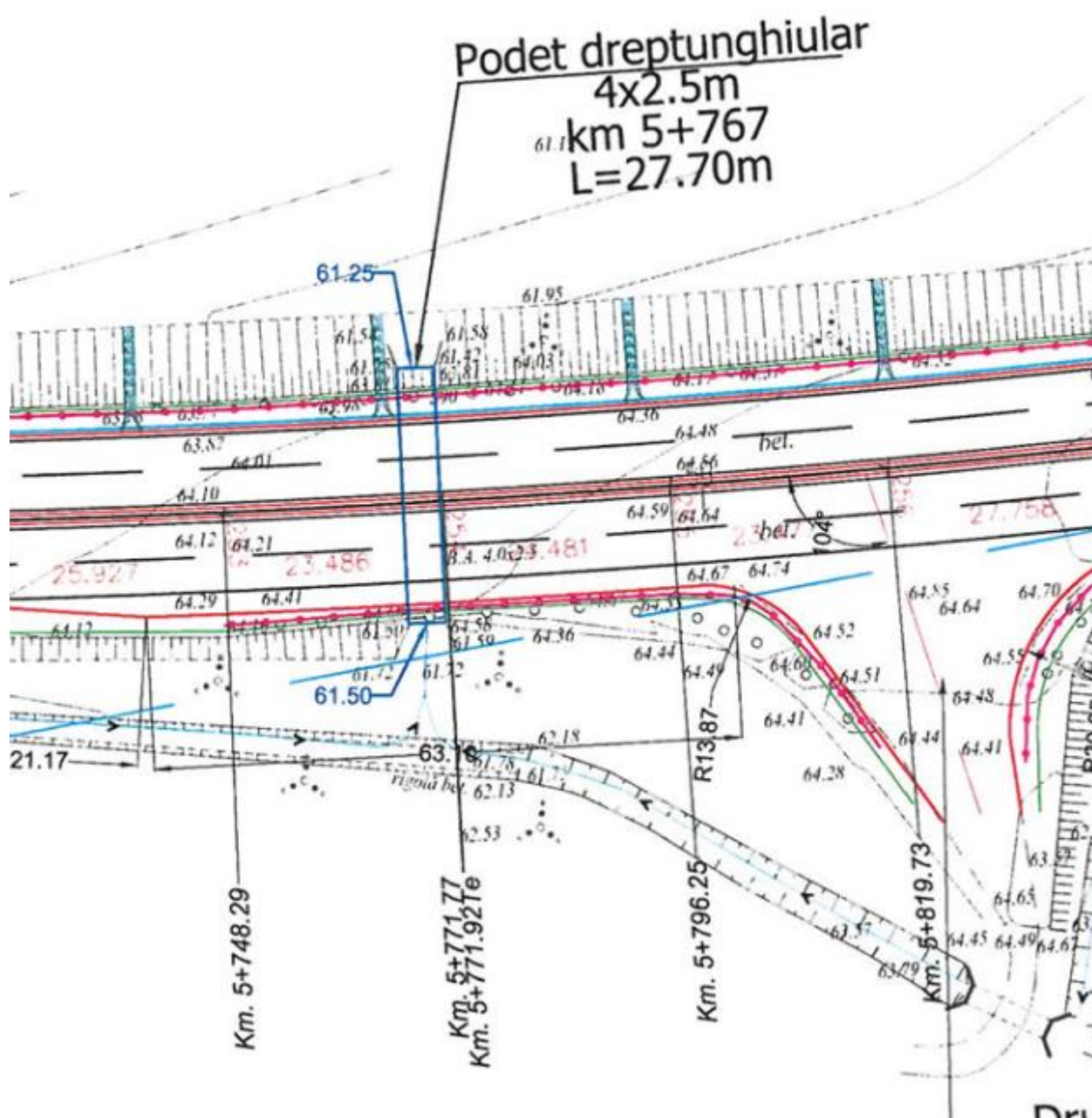


Figure 6-25: Plan of the bridge 5+767, which can be used by wild animals

At km 22+336 General view a bridge with parameters 4.0 x 2.5m is built for cattle, pedestrians, but also for some wild animals.



Figure 6-26: Existing bridge (km 22+336), which can be used by animals

All these constructions can be used as underground ecoducts for wild animals, especially mammals, at night, when they become attractive places due to their silence and their ability to migrate from one place to another without crossing the Road.

Conclusions.

There is no fauna species, included in the 3rd Edition of the Red Book of the RM and EU Resolution 6 estimated in the Project area, in the observed period. However, it is recommended to carry out the monitoring in the lands adjacent to the construction area, in order to stop the risks for periclitated and vulnerable fauna species, especially during the construction stage of the road.

Nevertheless, it is necessary to have continuous monitoring by an environmental/biodiversity expert, hired by the Construction Company for construction and operational stages, according to recommendations set in ESIA. Monitoring and assessing the effects of the measures meant to mitigate the risks should be carried out in the field, during the operational period, in the areas of Emerald sites, to supervise the status of the species' habitats and eventually to set forth additional and urgent measures, for construction and operational stages shall be carried out in the field, during construction, in these areas, in order to monitor the status of species habitats and possibly establish additional and urgent measures.

6.7.4. Flora and forest ecosystems

The diversity of flora species in the Republic of Moldova is relatively rich and includes 5,568 plant species (of

which 2,044 higher plant species and 3,524 lower plant species). There are 1,842 species of vascular plants and about 4,600 species of lower plants and fungi. Depending on the floristic richness, the ecosystems form the following sequence: forest (about 850 species), meadow (about 650 species), steppe (about 600 species), petrophyte (about 250 species), aquatic and marsh (about 160 species).

Flora from area of M3 Road

The biodiversity baseline conditions in the Central-Southern area are specific and different considering the geographical position, the relief, the vegetal carpet, and to the south (Giurgiulesti-Slobozia Mare area) with the Prut hydrographic basin, the presence of Beleu and Manta lakes (Lot 4). The vegetation of the sub-basin territory is represented by a wide variety of species and communities of vascular plants, especially hygrophytes and hydrophytes. On the studied territory, 310 species of vascular plants belonging to 194 genera and 64 families can be highlighted. The most numerous families are *Asteraceae* - 43 species, *Poaceae* - 34 species, *Lamiaceae* - 21 species, *Fabaceae* - 18 species, *Cyperaceae* - 13 species, *Apiaceae* - 12 species, other families are represented by a smaller number of species. Important flora species are also found in forests: Molesti-Rezeni and Carbuna located within the area potentially affected by the M3 Road. The species status of wildlife animals, representative and protected by EU Resolution 6 are described for each natural protected areas in the M3 Road area of the Emerald Sites. Some rare species were found: *Asparagus* (*Asparagus officinalis*), *Asparagus verticillatus*, *Crocus reticulatus*, Oxlip (*Primula Veris*).

The carpet of herbaceous plants is poorly developed, the most common being Goldmoss Stonecrop (*Sedum acre*) and Large Sedum (*Sedum maximum*); ephemeroids: Solomon's Seal (*Polygonatum latifolium*), Violet (*Scilla bifolia*), Figwort Vernal (*Ficaria verna*); sciafils: Wood Cow-wheat (*Melampyrum nemorosum*), Dog's Mercury (*Mercurialis perenis*), Meadowrue (*Thalictrum minus*), Solitary Clematis (*Clematis integrifolia*) and heliofils: Lesser Honeywort (*Cerinthe minor*), Lady's Bedstraw (*Galium verum*), mezoxerophytes: Clustered Bellflower (*Campanula glomerata*), Wallroth's Valerian (*Valeriana collina*) and Hydrophilicyellow Iris (*Iris pseudacorus*).

The following plant species are registered in the floristic composition of the reserve Lower Prut:

- The pond thistle (*Trapa natans*) – category I of rarity, prefers quiet places, coexists with the platica and the small lentil can be found at Belec lake
- The forest vine (*Vitis sylvestris*) - category I of rarity, can be found in the willow strip near the Prut River.
- White water lily (*Nymphaea alba*) – category I of rarity, can be found in the interior of the protection area and towards the north-eastern part of the Reserve.
- The fish (*Salvinia natans*) – category II of rarity, can be found on very large portions and approximately on the entire aquarium of the lake.
- The water arrow (*Sagittaria sagitafilia*) – category I of rarity, last years was less encountered, only in the south-east of the lake, because the water level was very high. Thus, the places where it could usually be recorded were underwater.
- Sedge (*Carex pendula*) – category II of rarity, because it can be found in the meadow itself between the coast and the strip of willows, it could be found a little (due to the floods that were maintained longer than usual)
- The fern (*Thelypteris palustris*) – rarity category I, found only in 16 specimens

It is worth mentioning that in the place where the road crosses in Lot 4 of the M3 are estimated to be adjacent to the road only a few groves of Willow - *Salix caprea* and *Salix alba*.

Forest Ecosystems

The forest fund only around Lot 1 M3 Road (Porumbrei – Cimislia, 19km) - in the Ialoveni District and is managed by the State Forestry Enterprise "Silva - Răzeni". The founder of the Enterprise is the "Moldsilva" Agency. The forests of the silvo - hunting enterprise "Silva-Răzeni" are fully included in functional group I "Forests with special protective functions", with a total surface area of 7230.9 ha covered with forests. The regeneration class represents 20.4 ha and after the afforestation works will be included in the area covered with forest. The lands affected by forest management are on the surface of 103.7 ha, non-productive lands 1.6 ha, lands temporarily removed from the forest fund 17.1 ha. By categories of use: 4047.3 ha (56%) are forests subject to the organization of the production process and 3204.0 ha (44%) are forests with an exclusive protection role where special conservation works are carried out. The overall percentage of afforestation is about 98%.







| Name of Species Scientific/English/Romanian | Representative Images of the Species | |
|---|--|---|
| <i>Quercus petraea</i> / Sessile oak / Gorun |  |  |
| <i>Quercus robur</i> / Pedunculate oak / Stejar |  |  |
| <i>Tilia cordata</i> / Small-leaved Linden / Tei pucios |  |  |

Table 6-29: Main Representative Species in Forests in the area of Lot 1 M3 Road

Apart from the representative species, there are also various species of trees, which accompany the basic species, such as: Field maple, European field elm, European hornbeam and wild cherry.

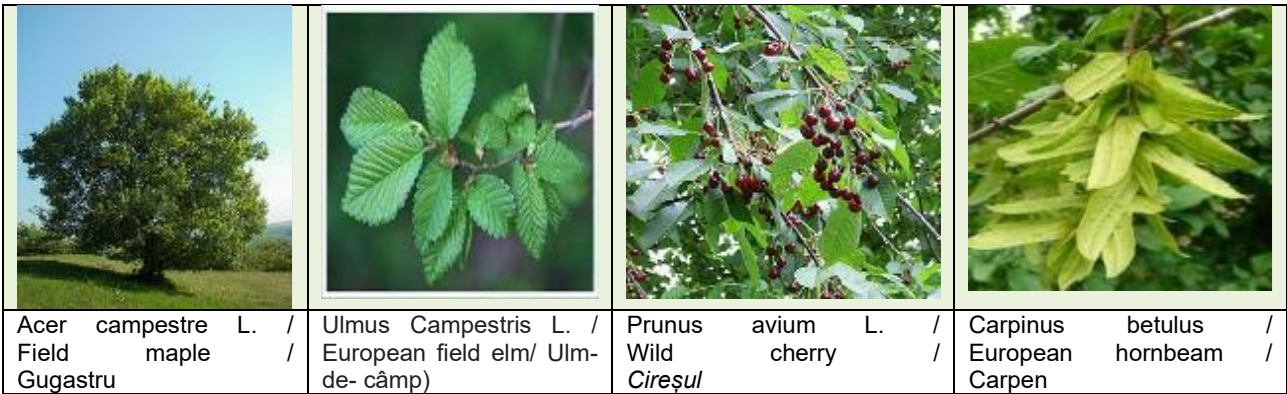


Figure 6-27: Secondary Species in Forests area

According to the evaluation carried out in the field, the layer of shrubs is well developed and includes, in particular, dove (Prunus spinosa), sedge (Swida sanguinea), dogwood (Cotinus coggygia), hawthorn (Crataegus monogina), soft sage (Euonymus europaea), dogwood (Ligustrum vulgare) and purgative verdigris (Rhamnus cathartica). The grass layer is uneven, the degree of coverage varying from 30% in oaks, to 100% in glades. In early spring, until the leaves appear on the plants: Ornithogalum oreoides, Adonis vernalis, Asparagus tenuifolius, etc., bloom, a little later - sedge (Vinca herbacea), sedge (Carex micheli), common sedge (Clinopodium vulgare). The population of Dictamnus gymnostilis is quite large.

Deforestation procedure:

At the first construction phase for the rehabilitation of the M3 road, deforestation of the trees in the construction corridor was carried out. The procedure for deforestation of trees is established by the Law of the Plant Kingdom no. 239/2007, GD no. 27/2004 for the approval of the Regulation on the authorization of felling in the forest fund and forest vegetation outside the forest fund.


| | |
|--|---|
| <p>For M3 Road, was approved the GD no. 299/2013³⁰ regarding the transfer of some land from the state forest fund for the rehabilitation works of the M3 road by deforesting the vegetation on them.</p> <p>The Environment Agency is the authority responsible for issuing the permit (Authorisation), based on the agreement of the Environmental Protection Inspectorate and the approval of the "Moldsilva" Agency.</p> <p>Thus, for the deforestation of vegetation in the Cimislia district (while Lot 2 has already experienced the largest impact during Phase I), the Authorization no. P-6366/2024 of 23.10.2024 for an area of 5.6 ha with a timber volume of 205.0 meters³. The permit was obtained by the "Moldsilva" Agency, which has already carried out the deforestation of these trees.</p> |  |
|--|---|

Table6-30: Approval of transfer of land

According to the data from the technical documents, the data on the deforestation of the following number of trees were established, in compliance with the legal requirements and information regarding the deforestation of trees and clearance of shrubs for the Tranche 2 Project is provided in the table below.

³⁰ Source: https://www.legis.md/cautare/getResults?doc_id=10322&lang=ro

| Lot | Mechanical deforestation of trees, cm | | Manual deforestation of areas with shrubs of D up to 10 cm (ha) | Total nr. of trees |
|---|--|------------------|---|--------------------|
| | Trees D 10-30 cm | Trees D 31-50 cm | | |
| Lot 1 | 3 | - | 0,4 | 3 |
| Lot 2 | <i>In phase 1 of the construction project, about 616 trees were cut. No deforestation planned for phase 2.</i> | | | |
| Lot 3 | There are no information | | | |
| Lot 4 (Giurgiulești bypass) DD No. D-066-PE/2024 | 38 | 17 | 0,44 | 55 |
| Lo 4 - M3, M3.1 road DD No. D-065-PE/2024 | 15 | 3 | 0,32 | 18 |
| Total: | 369 | 143 | | 692 |

Table6-31: Information regarding deforestation of trees

For Lot 3 no information is currently available in the technical documentation. Clarifications from the designer/contractor will be required to assess potential vegetation impacts for this lot.

Overall, deforestation requirements across Tranche 2 are relatively limited in scale and primarily involve small- to medium-diameter trees, alongside the clearance of shrub-dominated areas. The most significant interventions are concentrated in Lot 4, particularly along the Giurgiulești bypass sections. For Lot 3, further information is needed to determine the actual extent of vegetation removal. Since the project mainly involves reconstruction of the existing road over a length of 12 km, the number of trees expected to be cut is anticipated to remain limited.

Conclusion:

No impact on forest ecosystems is estimated, given that the vegetation in the forest fund has already been deforested.

Other mostly burnt trees that need to be cleared are solitary, grown spontaneously along the road and do not represent the vegetation of the forest fund.

In the area adjacent to the road (at a distance of 10 m wide from the roadway) no endangered and vulnerable species, with special national or international protection status have been estimated.

6.7.5. Field assessment and meetings

The main objective of the field assessment was to assess the risks to habitats and wildlife species in them, to identify burrows, hollows in old trees and other breeding/living places of animals, according to EBRD's Policy (2014), Performance Requirement (PR) 6.

For the Emerald Sites, during meetings organized with specialists from the State Forestry Enterprises and Biosphere Reserve administrations, in consultation with scientists from the Institute of Biology, Zoology and Botanical Garden (institute), others responsible organisations, was to identify the habitat type, according to the types listed in the EU Resolution 6.

During the reporting period, six field assessment visits were organized along the entire Road M3 route, the first of which (18 August 2025) was aimed at a general examination of the habitats and natural ecosystems in the area and the establishment of observation points for animal species, in particular in the area of interest (Emerald sites, forest and river area) but also in other areas, such as agricultural ecosystems, steppe.

Thus, the field assessment visits were organized on September 5 and 18, October 7 and 24, November 3 of

2025.



Figure 6-28. Images from the field evaluation

As a result of the land assessment, the following data were identified, on four Lots on the M3 road:

Lot 1 (Airport I/C – Porumbrei, L = 34.4 km

The most important evaluation points were the corridor passes near Emerald sites "Molesti-Rezeni" and "Carbuna", managed by the State Forestry Enterprise "Silva - Răzeni" of the "Moldsilva" Agency, represent natural and semi-natural habitats with predominantly artificial forests in the area of 100 m depth, located along the road. In this research area, rare and endangered plant species were not evaluated; no hollow trees have been found, in which nests of wild animals, including bees, can be made.

For the forest on the Emerald sites "Molesti-Rezeni", in the area adjacent to the M3 road, was established a G1.1 type of habitat, on mesotrophic soils and dominated by oak species - *Quercus robur* and *Quercus petraea* and with the presence of other deciduous species: *Fagus sylvatica*, *Carpenus betulus* and *orientalis*, *Tilia cordata*, *Cerasus avium* and others shrubs: *Crataegus*, *Ligustrum*, *Swida*, *Sambucus nigra*, *Staphylea pinnata*. More species of herbaceous plants were evaluated in the field, predominantly from the genus: *Artemisia*, *Asarum*, *Asparagus*, *Brachypodium*, *Bromopsis*, *Corydalis*, *Dactylis*, *Ranunculus*, *Salvia*, *Scutellaria* and others.

For the forest on the Emerald sites "Carbuna", in the area adjacent to the M3 road, was established a G1.A1 type of habitat, on eutrophic or mesotrophic soils, with usually ample and species-rich herb and shrub layers and dominated by oak species - *Quercus robur* and *Quercus petraea* and with the presence of other deciduous species: *Fagus sylvatica*, *Carpenus betulus*, *Carpinus orientalis*, *Tilia tomentosa*, *Ulmus carpinifolia*, with shrub species: *Cornus mas*, *Corylus*, *Cotinus*, *Crataegus spp.* and others. More species of herbaceous plants were evaluated in the field, predominantly from the genus: *Hordelymus*, *Hypericum*, *Inula*, *Isopyrum*, *Lamium Lapsana*, *Lathyrus*, *Pulmonaria*, *Pyretrum*, *Ranunculus*, *Stellaria*, *Taraxacum* and others.

The detailed description of the habitats and flora and fauna species from the Emerald sites "Molesti-Rezeni" and "Carbuna" is included in sections 4.7.1 - 4.7.6.

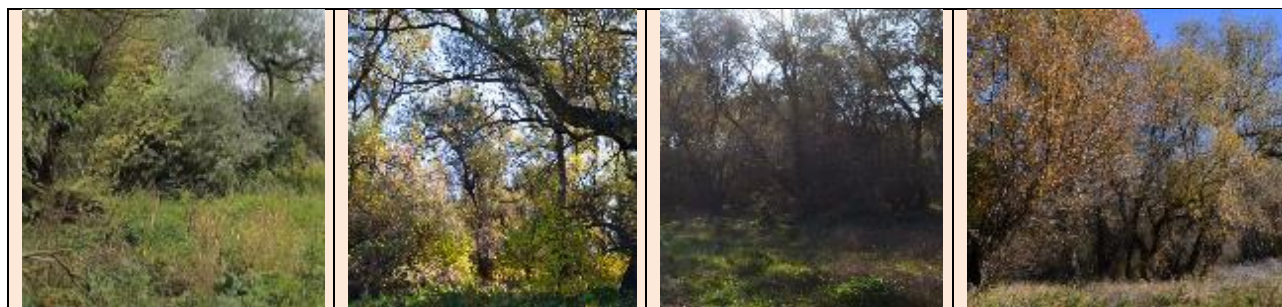


Figure 6-29: Images from forest "Molesti-Rezeni" and "Carbuna"

According to field examination no burrows or nests of wild animals were found, except for an Hedgehog and a mound of ants and droppings of small rodents and several species of common birds have been seen.

Other lands examined in Lot 1 are *modified habitats*, estimated in the area of road bridges, near the Ișnovăț river (km 14.55), Botna River (km 27.30) and Botnișoara River (km 33.45). In this area, mainly species of sedge and other already dried herbaceous plant species have been identified. From the animal species a one specimen of *Anguis fragilis*, traces of small rodents of the genus *Sorex* and *Myotis* and several species of common birds have been seen.



Figure 6-30: Images of modified habitats in the area of road bridges, Lot 1

In other agricultural lands in Lot 1 only a specimen of *Lepus europaeus*, traces of small rodent species – Rodenta and common species of birds in flight, in the fields of agricultural land and on electric poles along the road. The main bird species evaluated in the Lot 1 area are the following:

| Bird | Habitat |
|--|---|
| Tits codat (<i>Aegithalos caudatus</i>) | On the tree. In search of food. |
| Eurasian nuthatch (<i>Sitta europaea</i>) | On the tree. In search of food. |
| Field sparrow (<i>Passer montanus</i>) | At the edge of the forest, on fruit bushes. |
| Common chaffinch (<i>Fringilla caelebs</i>) | On the branches of the tree. In search of food. |
| Field sparrow (<i>Passer montanus</i>) | At the edge of the forest, on fruit bushes. |
| Swallows (<i>Hirundo rustica</i>) | On power lines on fruit shrubs |
| Common treecreeper (<i>Certhia familiaris</i>) | At the edge of the forest, on fruit bushes. |
| Common cuckoo (Common cuckoo <i>canorus</i>) | It was heard from the depths of the forest. |
| Tawny Owl (<i>Strix aluco</i>) | At the edge of the forest, on fruit bushes. |
| Eurasian siskin (<i>Carduelis spinus</i>) | At the edge of the forest, on fruit bushes |
| Pigeon ramier (<i>Columba palumbus</i>) | On the branches of the tree. In search of food. |

Table6-32: Information regarding deforestation of trees

No critical habitats and rare, vulnerable and endangered species of flora and fauna were estimated in the area of the Lot 1.

Lot 2 (Porumbrei –Cimișlia, L = 19, 0 km

The alignment traverses predominantly agricultural land and abandoned land with slopes. These areas do not represent much interest for the assessment of the risk to biodiversity, for the reason that here is no forest or, natural protected areas. In Lot 2 a more interest in field examination was the area of the road bridge - Cogîlnic river (km 62,72). In this area, mainly species of sedge and reeds and other already dried herbaceous species

have been identified. From animal species a specimen of *Lepus europaeus*, traces of small rodents of the genus *Sorex* and *Myotis* and several species of common birds have been seen. Forest vegetation – trees and shrubs have been deforested at the first stage – detailed information is in section 4.7.7. Along the road there are also sporadically shrubs of the genus *Ligustrum*, *Swida*, *Sambucus* and others, sporadically grown and is not of interest from the point of view of biodiversity.



Figure 6-31: Images of typical vegetation in the Lot 2

In evaluated lands in Lot 2 only traces of small rodent species – Rodenta and common species of birds in flight, in the fields of agricultural land and on electric poles along the road. The main bird species evaluated in the Lot 2 area are the following:

| Bird species | Habitat |
|--|--|
| Tits codat (<i>Aegithalos caudatus</i>) . | On the tree. In search of food. |
| Eurasian nuthatch (<i>Sitta europaea</i>) | On the tree, in search of food |
| Field sparrow (<i>Passer montanus</i>) | At the edge of the forest, on fruit bushes |
| Common chaffinch (<i>Fringilla caelebs</i>) | On the branches of the tree, in search of food |
| The white stork (<i>Ciconia Ciconia</i>) | On top of a pillar |
| Common treecreeper (<i>Certhia familiaris</i>) | On the flight |

Table 6-33: Main bird species

No critical habitats and rare, vulnerable and endangered species of flora and fauna were identified in the area of the Lot 2.

Lot 3 (Cimișlia – Comrat, L = 12 km)

The alignment traverses predominantly of steppe, agricultural land and abandoned land. In this area of Lot 3 there is the Emerald Site "Stepa Bugeacului" with natural habitat and, in some part modified habitats of steppe fragments of Bugeac Steppe. Following the examination of the land and in collaboration with representatives of the Botanical Garden (Institute) and field meeting with specialist from Forest Enterprise Cimislia it was established that in the area adjacent to the M3 road (nearly Dimitrovca and Ciugur Minjir localities) there is a *E1.2 type of habitat "Perennial calcareous grassland and basic steppes"*, dominant of basic grasslands of the steppe zone. Vegetation communities of *Festuco-Brometea* species. The meadow in the steppe is dominated by small and dense grasses, which at the evaluation stage in the autumn period were already mostly dry, so it was possible to identify only the typical communities of perennial bunchgrass species genus *Stipa* spp, *Salvia* Spp, and *Bothriochloa* spp. and shrubs: *Amygdalus*, *Spiraea*, *Crataegus*, *Rosa* spp. During the summer, autumn, as a result of high temperatures and drought, these areas are dry and degraded.



Figure 6-32: Images of typical vegetation communities in the Lot 2

More domestic animals (sheep and goats) are found grazing on these lands. From the animal species a one specimen of *Anguis fragilis*, traces of small rodents of the genus *Sorex* and *Myotis* and several species of common birds have been seen. The main bird species evaluated in the Lot 3 area are the following:

| Bird species | Habitat |
|---|------------------------------------|
| The hooded crow (<i>Corvus cornix</i>) | On the ground, in the grass |
| Remiz pendulinus (<i>Remiz pendulinus</i>) | On power lines on fruit shrubs |
| The Eurasian golden oriole (<i>Oriolus oriolus</i>) | In the flight |
| <i>Sturnus vulgaris</i> (Starling) | In the sky in flocks (migration) |
| Common Whitethroat (<i>Sylvia communis</i>) | On the branches, in search of food |
| Turtle dove (<i>Streptopelia turtur</i>) | In the flight phase |
| Remiz pendulinus (<i>Remiz pendulinus</i>) | On the ground, in the grass |
| Common chaffinch (<i>Coracias garrulus</i>) | In the flight |
| Eurasian siskin (<i>Carduelis spinus</i>) | In the flight |
| Pigeon ramier (<i>Columba palumbus</i>) | In the flight |

Table 6-34: Main bird species

The detailed description of the habitats and flora and fauna species from the Emerald sites "Stepa Bujecului" is included in sections 6.7.1 - 6.7.4.

No critical habitats and rare, vulnerable and endangered species of flora and fauna were identified in the area of the Lot 3.

Lot 4 (Giurgiulești Ring Road, L = 6.2 km): Rehabilitation of the M3 road (km 211.98 – km 213.69) and the M3.1 road (km 0.0 – km 0.65), construction of a new 3.86 km bypass road around Giurgiulești village.

The construction of the new Road segment - bypass road around Giurgiulesti village, is located in the area of agricultural lands, mostly abandoned and degraded, from the vegetation here only weed species predominate.

Not important for biodiversity. Considering that both the border road M3 Chisinau - Comrat - Giurgiulesti - Romania (km 211.98-213.69) and the border road M3.1 Giurgiulesti - Ukraine (km 0.0-0.65) connect two border crossing points (Giurgiulesti-Reni and Giurgiulesti-Galati, this area has limited access for possible entries and prohibition of observations, the assessment was made from the maximum possible distance. In the zone of border crossing points (Giurgiulesti-Galati) is the area of "Prutul de Jos" Biosphere Reserve, part of the Emerald Emerald Site, but it is an area with the most degraded natural habitat in the entire Reserve.

All the observations for those two road segments between customs, with limited / or forbidden access, created problems for us in the evaluation of the land. In this case, all the observations focused on the observation with binoculars of the wild migratory birds. Follow-up to remote observations, several flocks of wild geese and ducks, pelicans and other aquatic species were identified during their migratory period. The attractive areas for stationery and breeding for waterfowl, where they accumulate in a fairly large number are the Beleu, Cahul

and Manta lakes (from Cahul district), which are at a fairly long distance (more than 15 km), so the construction works on the road cannot influence the degradation of the habitats of these species.



Figure 6-33: Images on the migration of birds in Lot 4

They were in permanent discussions with the administration and the scientific section of "Prutul de Jos" Biosphere Reserve, who presented us with the situation regarding the monitoring data from the areas closest to the customs area, to which they have the right of access. The detailed description of the habitats and flora and fauna species from the around the "Prut de Jos" Biosphere Reserve, part of the Emerald Emerald Site "Lacurile Prutului de Jos" is included in sections 4.7.1 - 4.7.6.

According to the latest data presented to us by the Administration of of "Prut de Jos" Biosphere Reserve, on January 19, a joint raid was organized by the representatives of the reserve with the Border Police and National Food Safety Agency (ANSA), at which the state of wild animals in the Prut River along the border was assessed, with special tracking devices. The purpose was to establish dead animals or animals with signs of disease, in order to establish epizootics in birds or wild boar (*Sus scrofa*). As a result of the investigations, no dead or olfactory specimens of animals or risks to them were identified.



Figure 6-34: Images from wildlife investigations in the border area of the Republic of Moldova on the Prut River (Author: Biosphere Reserves "Prutul de Jos")

Organized meetings

Several field meetings were organized with forestry and scientific specialists (05.09.2025, 11.09.2025, 18.09.2025, 07.10.2025, 24.10.2025, 31.10.2025, 03.11.2025), as well as permanent online discussions, especially with representatives: scientific institutions of the Moldovas State University: Institute of Zoology (Dr. Nistoreanu Victoria, Dr. Viorica Palade), Botanical Garden (Institute) (Dr. Aliona Miron, Dr. Aliona Lisnic), Institute of Ecology and Geography (Dr. Anatol Tarîța), but also with the specialists from Institute in the Forestry Field -ICAS (Ion Talmaci), the "Moldsilva" Agency (Petru Rotaru), the Biosfere Rezerve „Prutul de Jos” (Vadim Dobrea and doc. Viorica Palade), the Forestry Enterprises: Rezeni (Svetlana Borga) and Cimislia (Pelivan Veaceslav) and Cahul (Stefan Focsa).



Figure 6-35: Images from field meetings with forestry and scientific specialists

The purpose of the meetings was to review and analyze the gaps compared to RP6 for the ESIA Report, discussing important details on the target species/habitats, the estimated risk to animal species. Issues related to the predicted possible risks and impacts on biodiversity, mitigation measures to be identified were also discussed. We were also provided with more supporting documentation on the sensitive biodiversity in the area and the monitoring data of the habitats and target species of wild flora and fauna (Annals of Nature of the "Prut de Jos" Scientific Reserve, Forest Management Plans and others.).

General Conclusions:

There are no fauna and flora vulnerable and endangered species, included in the 3rd Edition of the Red Book of the RM, international treaties on biodiversity, EU Directives and EU Resolution 6, estimated in the Project area, in the observed period.

As a result of the conclusions from the meetings organized in the field and through online communications with specialists from the administrations of protected natural areas, forestry enterprises, scientific research institutes, no dangers were established for the degradation of habitats and flora species, the damage to fauna and migration routes during the observation period.

Anyway, our recommendations are for the Construction Company to engage an environmental/biodiversity expert to assess the monitoring on the field, during the construction and operation period, especially in the areas of natural habitats from the Emerald sites, protected natural areas and forests.

For any cases of risk to animals or important plant communities, the representatives of the administrations of natural protected areas, the Inspectorate for Environmental Protection and scientific institutions will be informed, in order to take urgent measures in these cases, as established in the Management Plan.

6.8. Socio-economic conditions

This present section provides an overview of the socio-economic context in the Study Area and the Project Area of Influence, where construction and rehabilitation works under Tranche 2 of the TEN-T Road Network Project are to be implemented.

6.8.1. National, regional and local context

The Republic of Moldova is a lower-middle income, landlocked country between Romania and Ukraine, with a small (2,4 million), ageing population and a high degree of rurality. The country is in an advanced EU accession process and is progressively aligning its institutional and legal framework with EU standards, including in the

environment and social domains. Moldova remains highly dependent on **agriculture, remittances and services** and is vulnerable to external shocks (war in neighbouring Ukraine, energy price spikes, climate-related events).

Governance and Political Structure

Under the Constitution of the Republic of Moldova, the country functions as a parliamentary republic with separation of powers among the Parliament, Government (Cabinet of Ministers), President, and Judiciary. The Prime Minister heads the Government, which operates within a multi-party-political system and a framework based on the rule of law, political pluralism, and respect for human rights and international treaties.

National governance and public administration

At the central level, Moldova’s governance system consists of ministries and subordinate Central Public Authorities (CPA) under the coordination of the State Chancellery. The following ministries form the core of the Government (as of 2025):

- Ministry of Infrastructure and Regional Development (MIRD)
- Ministry of Foreign Affairs
- Ministry of Justice
- Ministry of Labour and Social Protection
- Ministry of Finance
- Ministry of Economic Development and Digitisation
- Ministry of Agriculture and Food Industry
- Ministry of Defence
- Ministry of Internal Affairs
- Ministry of Education and Research
- Ministry of Culture
- Ministry of Health
- Ministry of the Environment
- Ministry of Energy

Public services are delivered through both **central** and **local** authorities. The central government is responsible for areas such as national transport, telecommunications, energy, higher education, public health, and social protection. Service delivery is carried out by line ministries, agencies, and autonomous public institutions (some with Central Public Authorities status not subordinated to ministries).

| Stakeholder/Institution | Main responsibilities |
|---|--|
| The Government of Republic of Moldova (GM) | The Government plays the central role in the expropriation process and is typically the main expropriating authority. It adopts government decisions or regulations necessary to carry out the expropriation for public utility and sets the legal basis for taking private land. For national infrastructure (roads, bridges, highways, national public works), this responsibility is often delegated to the Ministry of Infrastructure and Regional Development or another central public authority tasked with the project. |
| Ministry of Infrastructure and Regional Development (MIRD) | Central specialised authority responsible for infrastructure and regional development policy. Oversees rehabilitation, modernisation, and expansion of the national road network; ensures road-fund financing mechanisms; coordinates water-supply and sanitation infrastructure; and implements regional and urban development planning. (Regulation approved by GD No. 690/2017) |
| National Road Administration (formerly State Road Administration) (NRA) | Established in 2022 under MIRD. Responsible for maintenance, repair, rehabilitation, and management of national public roads. On 13 June 2024, the Government approved its reorganisation into a joint-stock company with full state |

| Stakeholder/Institution | Main responsibilities |
|---|--|
| | capital, to improve financial efficiency and external-funding absorption. The NRA received in concession approximately 5,993 km of roads for 35 years. The Public Property Agency acts as its founder. |
| National Road Transport Agency (ANTA) | Implements national transport policies and controls compliance with national and international transport legislation. As of 30 July 2025, ANTA has also been assigned responsibility for road-infrastructure safety management, including inspections, safety audits, and operation of the National Road Safety Council. |
| National Inspectorate for Technical Supervision (NITS) | The Inspectorate carries out the following functions in the field of construction and urban planning: monitoring the implementation of territorial planning and urban development documentation; verifying the volume and cost of construction works in cases where the projects are financed from public funds. |
| Local Public Authorities (LPAs) | Possess autonomous authority for local development and service delivery. Each rayon (district) elects a district council to coordinate local councils. Mayors and council members are elected for four-year terms through direct, secret, and universal suffrage. LPAs oversee local permitting, land use, and community infrastructure. |
| Environment Agency (AM) | Implements environmental policy, issues permits, and monitors environmental components (air, water, soil, biodiversity). Publishes the National Environmental Report. |
| Agency for Geology and Mineral Resources (AGRM) | Oversees implementation of state policy in geological research, soil and groundwater protection, and mineral-resource management. |
| Environmental Protection Inspectorate (EPI) | Ensures state control over environmentally impactful activities and resource use; monitors water and forest protection, and enforces compliance with permits and environmental regulations. |
| Moldsilva Agency | Administers the state forest fund and game management. Ensures sustainable forestry and biodiversity conservation, forest protection, and wildlife management. |
| National Agency for Public Health (NAPH) | Monitors the quality of drinking water and wastewater effluents; ensures compliance with sanitary and health standards. Oversees health-risk prevention linked to water and air pollution. |
| State Labour Inspectorate | Monitors and enforces compliance with labour laws and employee rights. It ensures fair working conditions, proper pay, observance of work and rest time, and workplace safety. Its mission is to protect workers and promote occupational safety and health by verifying that employers follow all labour legislation. |
| General Inspectorate for Emergency Situations | Operates under the Ministry of Internal Affairs. Responsible for civil protection, disaster-response management, and coordination of emergency actions related to natural or technological hazards. |

Table6-35: Institutional responsibilities relevant to the Project

Moldova's governance system combines a centralised policy framework with decentralised local administration. The institutions listed above ensure that the Project is implemented in line with national laws on infrastructure, environment, safety, and public health. The Ministry of Infrastructure and Regional Development provides overall policy direction, while the National Road Administration acts as the Project's implementing entity in coordination with environmental and social oversight bodies.

6.8.2. Regional Governance

Under Law No. 438/2006 on Regional Development, Moldova is divided into three development regions - North, Centre, and South - which serve as planning and coordination units for regional development rather than administrative jurisdictions. The Project is located within the Centre and South Regions.³¹

³¹ Law Nr. LP438/2006 from 28.12.2006 https://www.legis.md/cautare/getResults?doc_id=107434&lang=ro



Figure 6-36: Organisational units in Moldova

National Development Regional Strategy 2022-2028 promotes coordinated action between central and local authorities to improve living conditions, increase employment, attract investment, and modernise infrastructure. District-level (rayon) strategies consistently identify poor road conditions and deficient transport infrastructure as critical constraints to economic growth and regional integration.

Findings from the EU/CoE Joint Project “Community-Led Urban Strategies in Historic Towns” (COMUS) also

highlight the need to improve transport links with neighbouring cities to strengthen regional and international cooperation. Consultations held during the ESIA scoping visits confirmed that deteriorated road conditions and limited transport connectivity are viewed by local authorities and residents as urgent socio-economic issues³².

Local governance framework

Local public administration derives its authority from Article 109 of the Constitution, which establishes the principles of local autonomy, decentralisation of public services, and citizen consultation in matters of local interest.

Local government operates at two levels:

- Level I: town/municipality and village (commune) councils addressing local issues;
- Level II: rayon (district) councils and the Chişinău municipality, coordinating public services at district level.

Local councils are elected for four-year terms by universal, direct, and secret ballot. Rayon councils elect their own chairpersons, while mayors and local councillors are elected separately for each commune or municipality. Local governments exercise both autonomous and delegated powers, including planning, infrastructure management, and land-use regulation.

Administrative Districts within the Project area:

- Lot 1: Chişinău Municipality, Ialoveni District, Cimişlia District.
- Lot 2: Cimişlia District
- Lot 3: Cimişlia District
- Lot 4: Cahul District

The M3 Project is located in the central and southern development regions - areas where poor transport infrastructure limits mobility, trade, and investment. By improving road conditions and regional connectivity, the Project will directly support Moldova's regional-development objectives, stimulate local economies, and enhance household income opportunities along the corridor.

6.8.3. Population, demographics, migration trends, and employment

Population size and structure According to the 2024 Population and Housing Census, Moldova has about 2.41 million usually resident inhabitants, a decline of roughly 14% compared to 2014, driven by low fertility and sustained emigration. The population remains predominantly rural: 53.6% rural and 46.4% urban, making Moldova one of the most rural countries in Europe. Women represent about 52.8% of the population. Ageing is accelerating. Final census data indicate about 20.5% of the population is below working age, 55.7% of working age and 23.7% above working age, signalling a growing demographic burden on the active population.

Demographic characteristics Ethnically, around 84–85% of residents identify as Moldovan/Romanian, with Ukrainians, Gagauz³³, Russians, Bulgarians and Roma forming the main minorities. Fertility is below

³² <https://pjp-eu.coe.int/en/web/comus/home.html>

³³ Although the Gagauz population is officially recognised as an ethnic minority at the national level, it is important to note that they also constitute the core population of the autonomous territorial unit of Gagauzia (UTAG) in southern Moldova. Their status therefore differs from other minorities, as they hold a distinct form of administrative, cultural, and political self-governance established under Moldovan law.

replacement: with the national total fertility rate (TFR) being around 1.6 children per woman, with somewhat higher TFRs in central and southern development regions (1.76–1.90) than in Chişinău.

Migration trends Moldova is a classic emigration country. Between 2014 and 2024 the resident population fell by about 380–450 thousand people, largely due to negative external migration and low natural growth. Estimates indicate around 1–1.2 million Moldovan citizens living abroad, i.e. close to one third of all nationals, many of working age. Emigration is both long-term and temporary/seasonal, historically oriented first to CIS countries and increasingly to EU member states.

Employment and labour market Labour Force Survey and 2024 Census data show a relatively low employment rate. In 2024 only about 40.2% of people aged 15+ were employed (≈ 783 thousand persons), while over one million adults were outside the labour market. In 2023, the unemployment rate was 4.6%, but this masks substantial underemployment and economic inactivity. The labour market is characterised by:

- high shares of employment in agriculture and low-productivity services,
- significant informal and seasonal work, and
- strong dependence on remittances sent by migrants abroad.

These national trends frame the more specific situation in Ialoveni (Centre Region) (Lot 1), Cimişlia (Lot 1-2) and Cahul (South Development Region – Lot 4).

Ialoveni District (Centre Development Region) – Lot 1

Population and settlement pattern: Ialoveni is a centrally located district adjacent to Chişinău. The district population is about 74,458 inhabitants (2024 census) over ≈ 783.5 km², giving a relatively high population density by Moldovan standards. The area is predominantly rural, though with strong peri-urban dynamics due to proximity to the capital; historically over 80% of the population lived in rural localities.

Demographic profile: The population is largely Romanian/Moldovan in ethnicity ($\approx 81\%$ Moldovan, 16% Romanian; small Ukrainian, Russian, Bulgarian and Roma minorities). Fertility is slightly above the national average (TFR ~ 1.86 in 2024), which helps slow but does not stop ageing. Ialoveni has a relatively young and active population compared to many rural southern districts, but with increasing shares of elderly in remote villages.

Migration patterns Ialoveni experiences intense commuting and internal migration towards Chişinău: many residents work or study in the capital while maintaining residence in the district. External migration is also present (mainly labour migration to EU and CIS countries), but the district benefits from its location through better access to jobs and services, which moderates depopulation versus more peripheral districts.

Employment and economic structure Ialoveni's labour market is mixed:

- strong commuter employment in services, industry and construction in Chişinău;
- local jobs in agriculture, viticulture, horticulture and small agribusiness;
- growing trade, logistics and light manufacturing along the main transport axes.

Average wages in Ialoveni (around 9,700 MDL gross/month) are slightly above the national rural average, reflecting this integration with the capital's labour market.

Cimişlia District (South Development Region) – Lot 1-3

Population and settlement pattern Cimişlia District is located along the M3 corridor in the South Region. The 2024 census recorded 30,986 residents over ≈ 924 km², meaning the population has halved since 2004 due to

sustained out-migration and low fertility. Settlements are mostly rural villages, with the town of Cimişlia as the administrative centre.

Demographic profile Cimişlia is predominantly Romanian/Moldovan in ethnicity with small Ukrainian, Russian and Bulgarian minorities. The district has a relatively high fertility rate (TFR ≈ 1.96), above the national average and among the higher values in the country, but this is offset by strong emigration and an ageing rural population.

Migration trends Cimişlia is one of the districts with intense net emigration, particularly among young adults. Analytical work based on census and administrative data highlights very high emigration rates for men aged 20–24 in Cimişlia, exceeding 8% in some cohorts and contributing to a sharp decline in the local male working-age population. Household strategies often rely on seasonal or long-term migration to EU or CIS labour markets, with remittances playing an important role in local livelihoods.

Employment and economic structure The district economy is dominated by agriculture (arable farming, orchards, vineyards, livestock), with over half of land in agricultural use. Local non-farm employment is concentrated in public services (education, health, administration), small trade and services in Cimişlia town, and road-related activities along the M3. Limited local job opportunities and low wages are key push factors for emigration and for commuting towards Chişinău and other centres.

Cahul District (South Development Region) – Lot 4

Population and settlement pattern Cahul District, located in the far south bordering Romania and Ukraine, had 72,775 residents in 2024 over about 1,545–1,546 km². The district combines the mid-sized municipality of Cahul ($\approx 22,200$ inhabitants in 2024) with a large number of rural communes (including Giurgiuleşti village). Population density is moderate, but out-migration has significantly reduced the rural population over the last decade.

Demographic profile The population is mainly Romanian/Moldovan, with important minorities (Ukrainians, Gagauz, Bulgarians, Russians) especially in villages near the Prut and in multi-ethnic rural areas. Fertility in Cahul (TFR ~ 1.59) is below both the Southern Region and national averages, contributing to rapid ageing in rural communities.

Migration trends Historically, Cahul town has had a positive internal migration balance, attracting residents from surrounding rural areas, while the district as a whole faces net external emigration similar to other southern districts. Young people often leave for higher education and work in Chişinău, Romania or other EU countries. Depopulation is most visible in remote villages and those affected by limited access to services and markets.

Employment and economic structure The district economy is mixed:

- agriculture (crops, viticulture, livestock) on the Bugeac plain and Prut lowlands;
- cross-border trade, logistics and services linked to the customs point at Giurgiuleşti and to proximity to Romania;
- public services, education and health concentrated in Cahul municipality (including the state university);
- emerging tourism and spa services around Cahul's thermal resources.

However, structural challenges remain: low wages, limited high-skilled jobs and seasonality drive continued out-migration and underemployment, particularly among youth and women in rural areas.

6.8.4. Economic activities and household income

The economic structure of the Republic of Moldova is defined by a gradual transition from an agriculture-dependent economy to one increasingly driven by services and trade. Services account for over half of GDP, while agriculture and agro-industry continue to employ a significant share of the labour force, especially in rural areas. Industry is moderately developed, with food processing, light manufacturing, construction materials and textiles forming the main subsectors.

Household livelihoods vary significantly between urban and rural areas. In rural communities, income sources are typically mixed, combining wage labour, small-scale agriculture, pensions, and remittances from family members working abroad. Labour migration remains one of the most influential economic factors, with a substantial proportion of households depending on remittances to finance consumption, education and reinvestment in housing or small businesses.

Average gross monthly earnings in the national economy reached about 14,100 MDL in 2024 (approx. 680 EUR), with continued nominal growth in 2025³⁴. Average gross monthly earnings are higher in Chişinău and lower in the central and southern districts, leading to persistent income disparities. Rural households remain more vulnerable to climate variability, agricultural price fluctuations and reduced labour market access.

Ialoveni District – Lot 1

Economic Activities Ialoveni district, located adjacent to Chişinău, has a peri-urban, diversified economy. The district benefits substantially from its proximity to the capital, which provides expanded employment opportunities. Key economic sectors include:

- Viticulture and wine processing, with vineyards, wine cellars and agro-industrial cooperatives.
- Agro-industry and food processing, particularly fruit and vegetable products.
- Services and trade, concentrated in Ialoveni town and suburban communes.
- Construction and small manufacturing, linked to the expansion of the Chişinău metropolitan area.

A considerable share of the working population commutes daily to Chişinău for employment in public institutions, education, health, logistics, retail, and private enterprises. M3 route is daily used by Horeşti, Țipala, Răzeni residents.

Household Income sources in Ialoveni reflect both urban and rural characteristics:

- Primary income: wage employment (in Chişinău and local SMEs), agricultural sales (grapes, fruits, vegetables), and small transport or trade businesses.
- Secondary income: remittances from abroad and pensions, which supplement household budgets in mixed-livelihood families.

Households generally have higher and more stable incomes than in other rural districts due to better labour market integration and diversified economic activity.

Cimişlia District – Lot 1-3

Economic Activities Cimişlia district has a predominantly agricultural and rural economic structure. The district hosts an industrial park and a sub-zone of the “Bălţi” Free Economic Zone, which concentrate several manufacturing and logistics enterprises. Its economy is characterised by:

³⁴ https://statistica.gov.md/en/statistic_indicator_details/2

- Crop production (cereals, sunflower, maize),
- Viticulture and orchards,
- Livestock farming (cattle, sheep, poultry),
- Small-scale processing of food products and construction materials,
- Presence of an industrial park and Free Economic Zone sub-zone, which host small manufacturing, logistics, and storage facilities.

Despite these assets, employment opportunities outside agriculture remain limited, and wage levels are typically below national averages.

Household Income Household incomes in Cimişlia are shaped by the strong agricultural base and limited non-agricultural employment:

- Primary income: agricultural production (family farms), seasonal labour, and local employment in trade, construction, and public services.
- Secondary income: remittances from migrant workers abroad, which remain critical for many rural households; pensions and social allowances.

Income vulnerability is elevated due to climate-related risks (droughts), fluctuating yields and market volatility for agricultural products.

Cahul District – Lot 4

Economic Activities Cahul district is the economic and administrative centre of the southern region, with a more diversified economy than other districts along the M3 corridor. Economic activities include:

- Agriculture on fertile soils (cereals, sunflower, vineyards, vegetable farming).
- Food processing and small industry, including dairy, bakery and wine production.
- Services, trade, education and health, concentrated in Cahul municipality.
- Cross-border trade and transport, supported by the district's proximity to Romania and the Giurgiuleşti international port.
- Tourism and hospitality, including spa facilities, ecological routes and wine routes.

Household Income Income sources reflect the urban–rural divide:

- Urban households (Cahul municipality): depend primarily on wages from services, administration, education, health, banking, logistics and retail.
- Rural households: rely more heavily on agriculture, livestock, seasonal labour and remittances.
- Secondary income sources: pensions, social allowances and remittances, which play a stabilising role in rural villages.

Income levels in Cahul municipality are generally higher and more stable, while rural areas remain sensitive to agricultural conditions and market dynamics.

Across the three districts, the baseline reveals several important considerations for ESIA impact assessment:

- Rural economies (Cimişlia district, rural Cahul district) are highly dependent on agriculture, making them more vulnerable to access restrictions to land, changes in mobility, or disruption to agricultural cycles.
- Ialoveni's peri-urban economy is more resilient, with households better integrated into wage labour markets in Chişinău.

- Remittances remain a vital source of income, especially in Cimişlia and rural Cahul, reducing immediate poverty but also contributing to high out-migration.
- Elderly-headed households relying mostly on pensions are present across all districts and represent a vulnerable group during construction-related disturbances.
- Small roadside businesses (trade, services) along the M3 corridor form part of household income and may be affected by temporary access restrictions.

6.8.5. Table Socio-economic conditions on Project area

The Area of Influence (AoI) covers the road corridor—approximately 500 m on each side of the centreline—and the settlements located within roughly 2 km of junctions and access points.

The figure below presents the Project alignment (Lots 1–4). Indirectly affected stakeholders include regional authorities, local administrations, and service providers within the broader southern development region.

The AoI has been delineated considering the areas likely to be affected by:

- Project activities and facilities directly owned, operated, or managed (including by contractors);
- Impacts from predictable but unplanned developments stimulated by the Project;
- Indirect impacts on biodiversity and ecosystem services that support community livelihoods;
- Associated facilities not financed by the Project but essential for its operation;
- Cumulative impacts from existing or planned developments overlapping in time or geography.

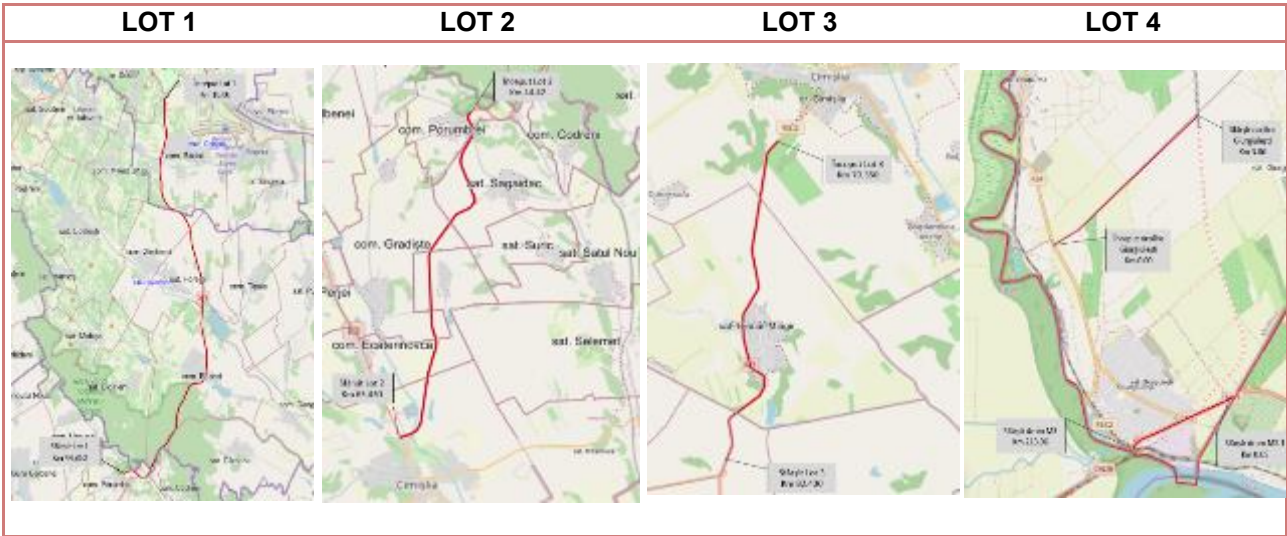


Figure 6-37: Overview of the lots

Note: The area of influence for the Project's socio-economic factors is shown in Figure 6-1: Project sites and area of influence

According to the 2023 CORINE Land Cover data, the areas of influence along the M3 project road, analysed across Lots 1–4, predominantly traverse agricultural land, including non-irrigated arable land, irrigated arable land, and areas with complex cultivation patterns.

- In Lot 1, in addition to agricultural land (non-irrigated arable land, pastures and complex cultivation patterns), the area of influence also intersects surfaces classified as “Forest and Semi-Natural Areas”, represented by patches of natural vegetation, natural grasslands and shrub-covered areas.

- In Lots 2 and 3, the influence area overlaps mainly with agricultural land and mixed cultivation zones, with occasional intersections of discontinuous built-up areas and existing infrastructure.
- In Lot 4, the area of influence includes agricultural land, anthropogenic areas associated with road infrastructure and economic activities, as well as zones related to watercourses and wetlands, reflecting the local environmental context.

Overall, the 2023 CLC analysis indicates that the project alignment is located within a predominantly agricultural and human-modified landscape, with only limited intersections with forested and semi-natural areas.

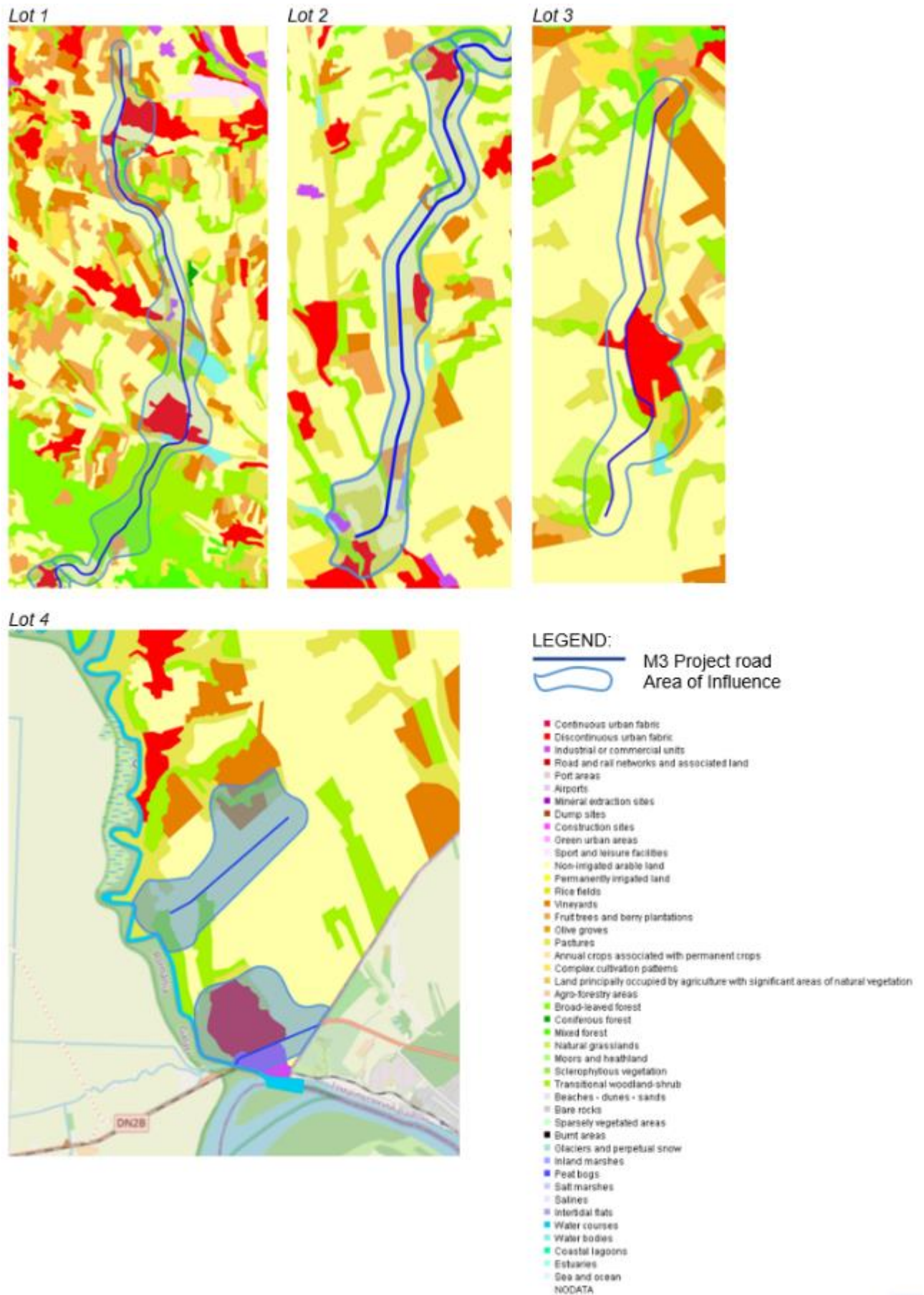


Figure 6-38: Corine Land Cover, 2023

The land on which the reconstruction works for Lots 1–4 will be carried out is public property of the state, with the designated use category of “transport infrastructure/road corridor.” These lands are part of the existing road infrastructure and are administered by the competent road authorities (NRA).

The proposed works will be implemented predominantly within the existing road corridor and its immediate zone of influence, without requiring changes to the legal status of the land, additional expropriation of private land is foreseen in Lot 4 bypass Giurgiulești (new construction) and connection road between borders (rehabilitation). Detailed information on land acquisition in chapter 4.10.



Figure 6-39: Giurgiulești Bypass

Social local context and economic profile (Villages and Towns in the Area of Influence)

Localities situated along the M3 corridor (Lots 1–4) will experience direct and indirect Project impacts - including temporary access disruptions, increased construction traffic, and changes in local mobility patterns, temporary or permanent economic displacement.

The localities and the socio-economic profile are indicated in Tables 14-30 to 14-33 and detailed social receptors and the length of residential areas adjacent to the road are detailed in the Table 6-34.

The socio-economic profile of the localities situated within the Area of Influence (AoI) of the M3 Road Rehabilitation Project was developed using a combined approach drawing on both secondary and primary data sources. Secondary information was compiled during the scoping phase conducted in August–September 2025, including official statistical data, local development strategies, cadastral records, and information obtained from preliminary consultations with Local Public Authorities (LPAs).

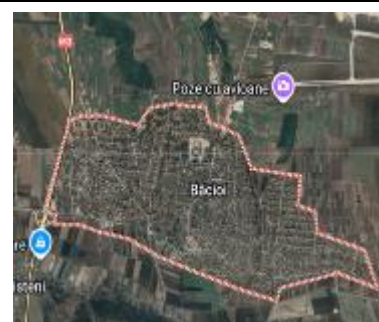
To complement and validate the secondary data, primary data collection was undertaken between 10–26 February 2026, consisting of field visits, household surveys, key informant interviews, and community-level consultations across all AoI settlements. This mixed-methods approach ensured that the socio-economic baseline reflects current local realities, captures community-reported conditions and vulnerabilities, and provides a robust evidence base for assessing Project impacts in alignment with EBRD Performance Requirements.

Lot 1 (Chisinau Airport – Porumbrei, 34.4 km) km 10.00 - 44.35

Socio-economic description of localities

Băcioi is in the administrative territory of Chişinău Municipality, district Botanica. In 1990-1991, a good concrete road was built connecting Băcioi with the country to the south and with Chişinău. The distance from Băcioi to Chişinău is 13 km.

Băcioi Commune constitutes the first settlement located within the Area of Influence (AoI) of Lot 1 – Chişinău Airport–Porumbrei of the M3 Road Rehabilitation Project. The commune lies in immediate proximity to the M3 corridor and benefits from a grade-separated (two-level) interchange, which provides formal, safe, and direct vehicular access to the national road network. Residential areas within Băcioi are primarily concentrated on the left-hand side of the M3 alignment (direction: Chişinău → Porumbrei). Conversely, the land on the opposite side of the carriageway is undergoing progressive industrial development, indicating a functional differentiation between residential zones and emerging commercial/industrial activities.



Straîsteni village, which forms part of Băcioi Commune, is situated further along the corridor on the right-hand side of the M3. In this area, an additional industrial development zone is planned on the opposite side of the road. The coexistence of established residential settlements and expanding industrial activities in close proximity to the highway underscores the strategic economic role of the M3 corridor, while simultaneously elevating the importance of assessing traffic safety, access management, noise exposure, and land-use compatibility within the ESIA.

The population of Băcioi according to the population and housing census in 2024 counts 9344 persons and 2903 households (4410 – men and 4934 women). Commune Bacioi consists of 4 small villages Bacioi, Straisteni, Braila, Frumusica. Straisteni village is part of commune Bacioi and is situated near M3 (link to Social Receptors Table 6-34). Structure by age: 0-14 – 20,1%, 15-64 – 72,6%, 65+ - 7,3%, Predominant Ethnicity – Romanian – 98,1%, Russian 0,9%. Households' characteristics: Households with children (0-17 age) – 49,7 %, of which 3+ children – 10,9%, 1 person households – 11,7%, 1elderly households (65+) - 4,4% Households with water supply access: 8,6% without access, 28,9% with own system, 62,5% with public system. Households access to sewerage system: without a system – 15,7%, with own system – 77,6%, with public system-6,7%.

Economic profile: large peri-urban commune with strong integration into the Chişinău labour market, Employment concentrated in services, construction, transport, logistics and retail in Chişinău. Small shops, garages, workshops and roadside trade contribute to local income. Household agriculture (vegetables, orchards, vineyards) is supplementary. 82 enterprises register in Bacioi commune. Agricultural machinery heavily uses M3 due to lack of functional alternative routes.

Household income: Primary: Salaries from Chişinău-based jobs; private transport services, trade and entrepreneurship. Secondary: Small trade, pensions, remittances, social allowances. More stable income pattern compared to rural villages. Moderate income stability (>10,000 MDL)

Social institutions: 2 kindergartens, 1 gymnasium, 1 lyceum. 1 Family medical centre and branch in Straîsteni. Social worker office; elderly support programmes. Cultural house, church, sports field.

Conclusion on concerns raised after community engagement: Community heavy reliance on commuting → highly sensitive to traffic restrictions. Roadside businesses may be affected by temporary access controls. Main concerns: noise, dust, vibration; cumulative noise from airport. Agricultural machinery heavily uses M3 due to lack of functional alternative routes. Irregular crossing manoeuvres to avoid grade-separated interchanges. Concerns about illumination

and barrier protection. Unsafe merging from Străisteni onto M3. Women expressed concerns about non-local workers based on past experiences. Low awareness of OHS requirements.

Expectations from the project Noise barriers, improved illumination, safe accesses, unified parallel agricultural routes. Proper management of business access and decel/accel lanes.

Horești is a village and commune in Ialoveni district. The village has an area of about 2.21 square kilometres, with a perimeter of 8.81 km. Horești is the only village in the commune with the same name. The locality is located 25 km from the city of Ialoveni and 38 km from Chișinău. According to statistical data, the Horești Commune, has a total number of 2378 inhabitants according census data in 2024 (1138 men, 1240 women).



Horești is the second settlement located within the Area of Influence (Aol) of Lot 1 and lies in immediate proximity to the M3 corridor. Together with Țipala commune, it depends on the grade-separated interchange that connects the two localities to the Local Road L465 (G105), serving as the main controlled access point to the national highway. This junction is extensively used by residents of both communes, as well as by local businesses—including leisure facilities, shops, and agricultural enterprises—whose daily operations rely on regular transport movements through this access node.

Structured by age – 0-14 – 20,6%, 15-64 – 71,7%, 65+ - 7,7% Households – 953. Predominant Ethnicity – Romanian – 99,3%, Ukrainian - 0,7% Household's characteristics: Households with children (0-17 age) – 51,0 %, of which 3+ children – 14,4%, 1 person households – 13,1%, 1 elderly households (65+) - 6,0%. Households with water supply access: 15,2% without access, 20,3% with own system, 64,5% with public system. Households access to sewerage system: without a system – 42,4%, with own system – 57,2%, with public system-0,4%.

Economic profile Mixed agriculture: cereals, vegetables, grapes, livestock. Limited non-farm employment; partial commuting to Chişinău/Ialoveni. On the administrative territory of Horeşti commune, businesses that interact with the M3 route, such as: Recreation and Fishing area Plan B, Aerodrome AEROTEAM Moldova, SRL AIR DEPLOMAT, SRL BECAS AVIA, SRL NEOLACTA (animal farm and production), SRL Buffalo Farm SRL QUEEN's RESIDENCE PARK, S.C. BRAMAC COM SRL, SRL GHILENCOM, CÎ HOREA SERVICE, SRL BRAGA TV, SRL FITOFAG

Household income: Primary: wages in local institutions, Chişinău, Ialoveni, agriculture and seasonal labour. Secondary: Remittances, pensions. High reliance on subsistence farming.

Social institutions Gymnasium, kindergarten, rural medical point, cultural centre and mayor's office.

Horești commune hosting the "National Treasure" Cultural Festival, which is more than a festival - it is a celebration of culture, traditions and national identity, which brings together generations and communities from across the country and the diaspora.

Conclusion on concerns raised after community engagement: Key issues: dust, noise, unauthorized landfill, sewage problems. High pedestrian and cyclist safety concerns around junction markets. Expectations from the project: Improved illumination, pedestrian crossing, managed agricultural access.

Țipala is a village and commune in Ialoveni district. The village has an area of about 1.89 square kilometres, with a perimeter of 8.03 km. The commune includes the localities of Budăi, Țipala and Bălțați. The locality is located 30 km from the city of Ialoveni and 32 km from Chișinău. According to statistical data, the Țipala Commune, has a total number of 3186 inhabitants according census data in 2024 (1555 men, 1631 women).



Tipala commune depends on the grade-separated interchange that connects to the Local Road L465 (G105), serving as the main controlled access point to the national highway. This junction is extensively used by residents, whose daily activities rely on regular transport movements through this access node.

Structured by age – 0-14 – 22,0%, 15-64 – 71,8%, 65+ – 6,2% Households – 1195. Predominant Ethnicity – Romanian – 99,6%, Ukrainian – 0,4%. Households' characteristics: Households with children (0-17 age) – 53,1 %, of which 3+ children – 14,6%, 1 person households – 11,6%, 1 elderly households (65+) - 5,1%. Households with water supply access: 19,4% without access, 35,6% with own system, 45,0% with public system. Households access to sewerage system: without a system – 53,9%, with own system – 45,2%, with public system-0,9%

Economic profile Dominated by agriculture (vegetables, cereals, orchards, livestock). Small micro-enterprise base. Household income Primary: Agricultural income. Secondary: Pensions, social payments, remittances. Social institutions Gymnasium, kindergarten, family medicine office. High vulnerability due to limited alternative employment options in the village and rely on M3 route for accessing the urban areas.

Conclusion on concerns raised after community engagement: Key issues: unauthorized landfill, sewage problems. High pedestrian and safety concerns around junction markets. Expectations from the project: Improved illumination, pedestrian crossing, managed agricultural access.

Răzeni is a village, the centre of a commune in Ialoveni District, Republic of Moldova. It is one of the oldest human settlements in the Republic of Moldova. According to statistical data, the village of Răzeni, has a total number of 5098 residents according census data in 2024 (2365 – men and 2733 women). Răzeni commune is located within the Area of Influence (Aol) of Lot 1 and is physically divided by the M3 corridor. The primary at-grade access point to the settlement connects directly to the M3 at approximately km 31, while the grade-separated junction providing safer access is located at km 33. Residential areas extend along both sides of the road, resulting in frequent pedestrian movements across the corridor. This spatial configuration creates increased community–road interaction and underlines the importance of road safety considerations for local residents.



Structure by age – 0-14 – 19,7%, 15-64 – 74%, 65+ - 6,4% Households – 2248. Predominant Ethnicity – Romanian – 98,7%, Ukrainian - 0,4%. Households' characteristics: Households with children (0-17 age) – 44,4 %, of which 3+ children – 13,2%, 1 person households – 17,2%, 1 elderly households (65+) - 7,2% Households with water supply access: 12,5% without access, 26,3% with own system, 61,2% with public system. Households access to sewerage system: without a system – 45,9%, with own system – 49,3%, with public system-4,8%.

Economic profile: strong agricultural base: orchards, grapes, small wineries. Local construction and agri-service enterprises; emerging rural tourism.

Household income: Primary: Agricultural sales; wages in local institutions and Chișinău. Secondary: Remittances, pensions, seasonal labour. Equal distribution of incomes above and below 10,000 MDL Moderately diversified but dependent on agricultural seasons.

Social institutions 1 lyceum, 1 kindergarten, 1 Family doctor's office; limited diagnostics. Active cultural centres and NGO involvement.

Conclusion on concerns raised after community engagement: Unsafe crossings to cemetery and communal facilities, high accident frequency, difficulty merging into M3 traffic, noise, lack of illumination, unsafe agricultural machinery movement. Expectations from the project Two pedestrian crossings; improved junction management, safer merging lanes, unified parallel agricultural routes.

Linked from Lot 1 to Lot 2

Porumbrei is a commune in Cimișlia district, Republic of Moldova. It consists of the villages of Porumbrei (residence village) and Sagaidacul Nou. The village has an area of about 1.11 square kilometres, with a perimeter of 5.69 km. The commune includes the localities of Porumbrei and Sagaidacul Nou. The locality is located 28 km from the city of Cimișlia and 50 km from Chișinău. According to the 2024 census data, the commune of Porumbrei, located in the Cimișlia district, has a population of 994 inhabitants (492 men, 502 women).



Porumbrei village is located within the Project's Area of Influence (Aol), at the interface between Lot 1 and Lot 2 of the M3 corridor. The locality is served by a grade-separated interchange that provides controlled access to the national road, complemented by pedestrian pathways and bus stops situated on both sides of the M3, ensuring safe mobility for residents.

Sagaidacul Nou, administratively part of Porumbrei commune, is likewise positioned within the Aol of Lot 1, on the opposite side of the M3 relative to Porumbrei village. The settlement is bordered by forestry areas belonging to the forest fund managed by the Silvo-Cinegetic Enterprise "Sil-Răzeni," which naturally restrict the extent of roadside development. Within this segment of the Aol, only one private commercial operator—the "Selena Bivol" fruit storage facility—has direct access to the M3 corridor, alongside a fuel station located at the end of Lot 1 near the entrance to Porumbrei village.

Structured by age – 0-14 – 19,1%, 15-64 – 74,0%, 65+ - 6,8%. Households – 405. Predominant Ethnicity – Romanian – 99,2%, Russian - 0,5%. Households' characteristics: Households with children (0-17 age) – 50,9 %, of which 3+ children – 20,9%, 1 person households – 15,3%, 1 elderly households (65+) - 7,4%. Households with water supply access: 28,1% without access, 39,8% with own system, 32,1% with public system. Households access to sewerage system: without a system – 65,4%, with own system – 31,6%, with public system-3,0%. The wastewater plant was developed from the National Ecologic Fund with a budget of 9mln MDL, but it is still not in function.

Economic profile Small rural community focused on wine cultivation, cereals and orchards. Household income Primary: Salary, Agriculture. Salaried workers, entrepreneurs - 70% surveyed declared earn up to 10,000 MDL Secondary: remittances, pensions, social allowances. Social institutions Gymnasium, Kindergarten; rural medical assistant.

Conclusion on concerns raised after community engagement: Positive expectations regarding connectivity and

mobility improvements. Concerns: Lack of advance signage for Sagaidacul Nou. Unsafe informal bus stops created by operators stopping on M3 before Sagaidacul-Nou (Sagaidacul-Nou bridge was rehabilitated in 2024). Expectations from the project Need for lighting and safe VRU (vulnerable road users) pathways, accel/decel lane for Selena-Bivol enterprise.

Phase 1 rehabilitation: The locality of Porumbrei have previously been affected by roadworks implemented under Phase 1 of the Lot 2 - M3 rehabilitation project. Community consultations undertaken for the current ESIA confirmed that no significant issues or grievances were raised regarding the completed construction works, and residents generally expressed satisfaction with the improved road quality and local accessibility. Importantly, no concerns were reported in relation to expropriation or land acquisition associated with the earlier Phase 1 interventions.

Table6-36: Main localities in Lot1

Lot 2 (Porumbrei – Cimișlia, 19 km) rehabilitation & expansion of 19 km of road from 2 to 4 lanes.

(Category A) km 44+420 – 63+430 – rehabilitation/construction

Socio-economic description of localities

Sagaidac is a village and the administrative centre of the commune of the Cimislia district. The area of the village is about 3.88 km2, the perimeter is 14.01 km. Sagaidac is the only village in the commune of the same name. The village is located 30 km from the city of Cimislia and 53 km from the municipality of Chisinau. According to the 2024 census data, the Sagaidac village, located in the Cimișlia district, has a population of 1214 inhabitants (575 men, 639 women).

Structured by age – 0-14 – 17,1%, 15-64 – 73,0%, 65+ - 9,9% Households – 616. Predominant Ethnicity – Romanian – 99,2%, Russian - 0,5%. Households' characteristics: Households with children (0-17 age) – 40,4 %, of which 3+ children – 17,7%, 1 person households – 17,4%, 1 elderly households (65+) - 9,4%. Households with water supply access: 14,1% without access, 58,4% with own system, 27,5% with public system. Households access to sewerage system: without a system – 77,6%, with own system – 22,4%, with public system-0,0%

Economic profile: Mixed farming (crops, livestock). Household income Primary: Salary, Agriculture, 55% of respondents declared earn up to 10,000 MDL. Secondary: Remittances, pensions, seasonal labour. Social institutions: School, kindergarten, rural medical point, cultural hall.

Sagaidac village has direct access to M3 at intersection with Porumbrei village grade-separated intersection and local road infrastructure was reported and observed during visits to be in generally good condition (local road G122.1). Currently, pedestrians must walk approximately 3 km to reach the nearest bus stop, and there is no dedicated pedestrian infrastructure along this route. There is a shorter alternative route also direct to M3 road (up to 1 km) with a grade-separated crossing, which would provide more direct access. However, this road is currently in poor condition, difficult to pass, and practically unused. Despite its present state, if upgraded and provided with appropriate stopping facilities, it could significantly reduce walking distances and improve pedestrian access to public transport.

Concerns, proposal, expectations after community engagement: residents declared satisfied with Lot 2 rehabilitation; expect continuation of 4-lane design. Mud carried from agricultural machinery onto M3 was raised. Proposal to manage the shorter access to M3 by rehabilitation of the local road and infrastructure for pedestrian and bus stop at grade-separated crossing.

Phase 1 rehabilitation: The locality of Sagaidac has previously been affected by roadworks implemented under Phase 1 of the Lot 2 M3 rehabilitation project. Community consultations undertaken for the current ESIA confirmed that no significant issues or grievances were raised regarding the completed construction works, and residents generally expressed satisfaction with the improved road quality and local accessibility. Importantly, no concerns were reported in relation to expropriation or land acquisition associated with the earlier Phase 1 interventions.



Grădiște is a village and commune in Cimișlia district. The village has an area of about 2.05 square kilometres, with a perimeter of 8.00 km. The commune includes the localities Grădiște and Iurievca. The locality is located 14 km from the city of Cimișlia and 60 km from Chișinău. According to the 2024 census data, the commune of Grădiște, located in the Cimișlia district, has a population of 1150 inhabitants (543 men, 607 women).

Structured by age – 0-14 – 16,1%, 15-64 – 74,2%, 65+ – 9,7% Households – 667. Predominant Ethnicity – Romanian – 95,0%, Ukrainian – 3,9%. Households' characteristics: Households with children (0-17 age) – 39,3 %, of which 3+ children – 13,0%, 1 person households – 19,6%, 1 elderly households (65+) – 10,3%. Households with water supply access: 13,5% without access, 56,7% with own system, 29,8% with public system. Households access to sewerage system: without a system – 61,8%, with own system – 37,9%, with public system – 0,3%

Economic profile: Extensive crop farming (sunflower, cereals) and livestock. Limited services, significant out-migration. Household income Primary: Farm income, seasonal labour. Secondary: Remittances (very high), pensions, social allowances. Social institutions Gymnasium + kindergarten; rural health office, social worker office; elderly assistance. Residents use M3 road for their daily needs (school, work, social services, healthcare) to Chisinau or other districts (Cimișlia) mostly with private transport, but also using public transport. Cycling is practicable by residents mostly within locality and are not using M3 for cycling. Illumination on road was declared mandatory in the perimeter of road junctions and bus stops.

Entire Lot 2 was designed with dedicated grade-separated intersections for agricultural machinery so this are used at permanent basis for works on field, crossing M3 for transportation of goods and then they access their alternative routes which are dirty roads or use local roads.

During consultations held in Coștangalia and Grădiște, residents highlighted the poor condition of the local road L559.1, which connects their communities to Lot 2 of the M3 Project via a grade-separated junction. Community members described the state of the local road as a major constraint affecting daily mobility, including limited and difficult access to the M3 corridor. Residents noted that due to the deteriorated road surface, mud is frequently transported onto the M3 by vehicles accessing the junction, contributing to unsafe driving conditions, accelerated vehicle deterioration, and avoiding M3 route using instead R3 route.

Approximately 44 children from Coștangalia travel daily to and from Grădiște school, relying on L559.1 as the primary route. **Conclusion on concerns raised, proposals, expectations after community engagement:** concerns were expressed regarding children's safety, including risks associated with increased construction traffic, poor visibility, and road surface degradation on the local access road. Residents declared satisfied with Lot 2 rehabilitation; expect continuation of 4-lane design, unsafe and deteriorated local roads (L559.1) which create premises to avoid M3 route. Recommendation for M3 is to install emergency points along the road where distance between localities is higher.

Phase 1 rehabilitation: The locality of Grădiște has previously been affected by roadworks implemented under Phase 1 of the Lot 2 M3 rehabilitation project. Community consultations undertaken for the current ESIA confirmed that no significant issues or grievances were raised regarding the completed construction works, and residents generally expressed satisfaction with the improved road quality and local accessibility. Importantly, no concerns were reported in relation to expropriation or land acquisition associated with the earlier Phase 1 interventions.

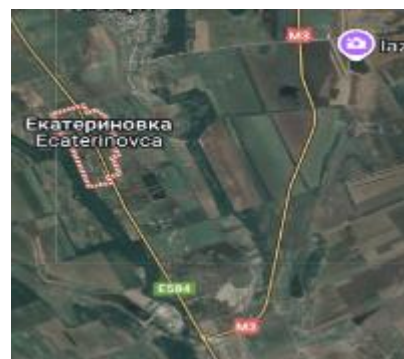


Ecaterinovca is a village and the administrative centre of the commune of the same name in the Cimișlia district. The area of the village is about 1.05 km², the perimeter is 6.67 km. The commune includes the settlements of Ecaterinovca and Costangalia. The village is located 7 km from the city of Cimișlia and 65 km from the municipality of Chisinau. According to the 2024 census data, the commune of Ecaterinovca, located in the Cimișlia district, has a population of 910 inhabitants (445 men, 465 women).

Structured by age – 0-14 – 16,8%, 15-64 – 72,3%, 65+ – 10,9% Households – 501. Predominant Ethnicity – Romanian – 86,5%, Ukrainian – 4,8%, Russian – 3,8%. Households' characteristics: Households with children (0-17 age) – 39,7 %, of which 3+ children – 9,0%, 1 person households – 19,4%, 1 elderly households (65+) – 11,0%. Households with water supply access: 9,0% without access, 24,0% with own system, 67,0% with public system. Households access to sewerage system: without a system – 40,9%, with own system – 29,3%, with public system – 29,8%.

Economic profile Agriculture, Farm; small retail and workshops. Household income Primary: Salary, Agriculture. Income averages up to 10000 MDL. Secondary: Remittances, pensions. Social institutions: School, kindergarten, family medical point, social worker office.

Community engagement with residents of Ecaterinovca commune highlighted that the locality primarily relies on the R3 regional road, which connects directly to the M3 corridor at the end of Lot 2, near the entrance to Cimișlia. Residents



emphasized that this junction is a critical mobility node for daily commuting, access to public services, and the movement of agricultural products.

Conclusion on concerns raised, proposals, expectations after community engagement:

During consultations, participants raised concerns regarding potential cumulative impacts on traffic safety, particularly in scenarios where the future Cimișlia bypass may spatially or functionally interact with the planned extension and rehabilitation works on Lot 2. The community noted that simultaneous construction activities and potential reconfiguration of access points could increase risks for local traffic, including pedestrians, school transport, and agricultural machinery frequently using the R3–M3 connection. Residents proposed that the Project should: Ensure clear and safe traffic management at the intersection during construction, with dedicated signage, speed reduction measures, and controlled crossing points, coordinate construction timelines for Lot 2 works and the Cimișlia bypass to avoid overlaps that could generate cumulative congestion or unsafe temporary detours, maintain uninterrupted access for local mobility needs, particularly during peak travel periods for schools, workplaces, and agricultural activities.

Phase 1 rehabilitation: Ecaterinovca locality had previously been affected by the rehabilitation works implemented under Phase 1 of Lot 2 of the M3 corridor. During the community consultations conducted for the current ESIA, residents confirmed that no significant issues, grievances, or residual impacts were associated with the earlier construction activities. Overall, the community expressed satisfaction with the upgraded road surface and improved accessibility, noting that the works were carried out without major disruption. Consultations also confirmed that no concerns were raised regarding expropriation or land acquisition during Phase 1, and no outstanding claims remain at the local level. In the operation phase, however, residents highlighted a persistent road safety concern at the junction connecting Lot 2 with the entrance to Cimișlia, where high traffic speeds on the rehabilitated section of Lot 2 have reportedly contributed to frequent accidents. Community members emphasized that this intersection is not adequately arranged or traffic-calmed, increasing risks for both local residents and transit users.

Coștangalia is a village in Ecaterinovca commune, Cimișlia district. The village has an area of about 0.68 square kilometers, with a perimeter of 4.46 km. The locality is located 15 km from the city of Cimișlia and 70 km from Chișinău. with a population according to the census data in 2024 652 people (334 men, 318 women).

Economic profile: Agriculture and animal husbandry; small retail. Household income: Primary: Agriculture. Secondary: Remittances, pensions. Social institutions Kindergarten, family medical point, social worker office. Approximately 44 children from Coștangalia travel daily to and from Grădiște school, relying on L559.1 as the primary route. **Conclusion on concerns raised, proposals, expectations after community engagement:** concerns were expressed regarding children's safety, including risks associated with increased construction traffic, poor visibility, and road surface degradation on the local access road. The impact was described in Chapter 6.4 Socio-economic impacts.

Phase 1 rehabilitation: Residents declared satisfied with Lot 2 rehabilitation; expect continuation of 4-lane design. Drainage issues were declared during rainy period.



Link from Lot 2 to Lot 3

The city of Cimișlia is situated in the southern part of the Republic of Moldova, within Cimișlia District, along the banks of the Cogâlnic River, approximately 68 km south of Chișinău. The municipality holds a strategic position in the national road network, being uniquely located at the intersection of five national roads, including one international corridor, which underscores its regional mobility and economic significance.

Cimișlia serves as the administrative centre of the Southern Development Agency of the Republic of Moldova. The city has an urban area of 208.4 ha, within a total administrative territory of 14,612 ha, of which 8,413 ha are designated for agricultural use, including orchards, vineyards, and arable land. According to 2024 demographic data, the municipality has a population of 8,552 residents, while the wider Cimișlia District has a total population of 31,781 inhabitants.

Structured by age – 0-14 – 14,6%, 15-64 – 74,2%, 65+ - 11,2% Households – 4250. Predominant Ethnicity – Romanian – 79,8%, Ukrainian - 11,7%. Households' characteristics: Households with children (0-17 age) – 32,7 %, of which 3+ children – 8,4%, 1 person households – 3,3%, 1 elderly households (65+) - 9,1%. Households with water supply access: 4,4% without access, 18,0% with own system, 77,6% with public system. Households access to sewerage system: without a system – 23,7%, with own system – 52,1%, with public system-24,2%

Cimișlia is a district-level economic hub with a diversified and well-established local economy. Industry and Manufacturing: The city hosts a range of industrial activities, including food processing (grains, dairy, wine products), construction materials production, and light manufacturing. Agriculture-Linked Services: Given its strong agricultural



hinterland, Cimişlia is an important centre for storage facilities, grain depots, and wine cooperatives, which support local producers and regional value chains. Trade and Services: The urban economy is complemented by retail shops, local markets, logistics and transport services, automotive repair workshops, fuel stations, and hospitality facilities such as restaurants, cafés, and small hotels/motels. Labour Market: Employment is concentrated in commerce and retail, public administration, transport and logistics, education and healthcare, as well as agriculture and agro-processing. These sectors provide stable income opportunities for most residents. Income Sources: Household incomes are derived from salaries (public sector, trade and services, transport), small businesses and retail activities, seasonal employment abroad, and pensions—which represent a significant share due to the ageing population. Living Standards: Poverty risk in Cimişlia is lower than in surrounding rural villages, but still higher compared with major urban centres. Many households face financial pressure from heating and transport expenses. Housing consists of Soviet-era apartment blocks and private homes, particularly in peripheral neighbourhoods, where secondary road conditions are variable and, in some cases, deteriorated. Education: The city has multiple kindergartens, two general education schools, Cimişlia Lyceum, and a Vocational Training Centre that plays an important role in preparing skilled labour for agriculture, services, and small industry. Healthcare Services: Cimişlia hosts the District Hospital, which serves as a regional medical point, alongside primary healthcare centres, dental clinics, and private medical practices. Emergency services are available locally, and many communities along the M3 corridor rely on the city for specialised diagnostics. Social Vulnerabilities: Key vulnerable groups include elderly people living alone, low-income pensioners, households with members working abroad, and pockets of youth unemployment. The construction of the Cimişlia Bypass, scheduled to commence in 2026, was identified by participants as a priority measure for improving community safety and environmental quality. The Project's configuration ensures continuity between road sections: the end of Lot 2 (Porumbrei–Cimişlia) is designed to connect directly with the future bypass, while Lot 3 begins at this junction point. This integrated alignment was positively received by stakeholders, who viewed it as a long-term solution for diverting transit and heavy-goods vehicles away from residential areas.

Cimişlia is a key transport node for the southern Moldova region. The M3 highway traverses the city's influence area, with heavy vehicle flows serving: agro-industrial supply chains, inter-city passenger transport, local commerce. Public transport options: minibuses to Chişinău, Comrat, Hînceşti, local routes connecting to nearby villages. High pedestrian presence near: markets, schools, medical facilities.

Conclusion on concerns raised, proposals, expectations after community engagement: During consultations, residents noted that the combined implementation of the Bypass and Lot 2–3 rehabilitation works is expected to substantially reduce cumulative environmental impacts within Cimişlia, especially during the operational phase, by mitigating dust, noise, vibration and traffic-related risks. Concerns were primarily raised regarding cumulative construction-phase impacts, given the expected overlap of works on the bypass and Lot 2–3. For Lot 2, stakeholders confirmed that rehabilitation works completed earlier have already contributed to improved mobility, and several participants reiterated long-standing expectations for a future expansion from 2 to 4 lanes, referencing the land acquisition and expropriation process finalised in 2019.

Phase 1 rehabilitation: During the community consultations conducted for the current ESIA, residents reported that no major issues, grievances, or residual impacts had resulted from the earlier construction works under Phase 1. While general satisfaction was expressed regarding the improved road surface and enhanced accessibility, farmers noted two outstanding concerns: (i) limited engagement during the previous phase, and (ii) ongoing difficulties in accessing their agricultural plots with machinery, an issue that remains unresolved. Consultations further confirmed that no objections or concerns were raised in relation to expropriation or land acquisition during Phase 1, and no outstanding claims persist at the local level. In the operation phase, however, residents drew attention to a continuing road safety problem at the junction between Lot 2 and the entrance to Cimişlia. High vehicle speeds along the rehabilitated section of Lot 2 have reportedly contributed to frequent accidents, with community members noting that this intersection is insufficiently arranged and lacks appropriate traffic-calming measures, posing risks to both local users and through-traffic.

Table6-37: Main localities Lot 2

Lot 3 (Cimișlia – Comrat, 12 km) km 70+350 – 82+430 – rehabilitation**Socio-economic description of localities**

Ciucur-Mingir is a village and commune in Cimișlia district. The village has an area of about 3.05 square kilometres, with a perimeter of 13.14 km. Ciucur-Mingir is the only village in the commune with the same name. The locality is located 12 km from the city of Cimișlia and 83 km from Chișinău, with a population of 887 people according to the census data in 2024 (408 men and 479 women).

Structured by age – 0-14 – 15,0%, 15-64 – 73,9%, 65+ – 11,1%. Households – 462. Predominant Ethnicity – Romanian – 97,7%, Gagauz – 0,7%. Households' characteristics: Households with children (0-17 age) – 35,9 %, of which 3+ children – 16,3%, 1 person households – 21,4%, 1 elderly households (65+) – 9,7%. Households with water supply access: 20,1% without access, 42,4% with own system, 37,5% with public system. Households access to sewerage system: without a system – 63,4%, with own system – 36,1%, with public system – 0,5%.

Ciucur-Mingir has an economy that is primarily based on agriculture, complemented by small local services and trade activities. Key Economic Activities: crop farming is the dominant activity, with cereals, sunflower, maize, and rapeseed widely cultivated, animal husbandry includes cattle, sheep, goats, and small-scale dairy production, viticulture is present at household level, with small vineyards contributing to local livelihoods, local trade and services consist of grocery shops, bakeries, and small mechanical workshops. Transport services are provided by local carriers offering connections to Cimișlia and Hîncești. Labour Market: Most residents are employed in agriculture and agro-processing. A significant share of working-age adults commutes regularly to Cimișlia for jobs in trade, services, and public administration, or to Chișinău for seasonal or weekly employment. Local unemployment is slightly above the district average. Household Income: Primary sources of income include agriculture, pensions, and small local services, typically amounting to up to 10,000 MDL per month. Secondary income sources—particularly remittances, seasonal migration earnings, and pensions—contribute an additional 3,000 MDL per month on average and play a major role in household budgets. Education: The village operates a kindergarten and a secondary school (gymnasium). Although basic education services are available, the locality faces some teacher shortages, which affects service continuity. Healthcare: A family medical point provides primary healthcare services. For emergency care and specialised treatments, residents rely on Cimișlia District Hospital. Mobility and Interaction with the M3 Corridor: Residents depend on local roads connecting to the M3 for commuting, agricultural transport, and access to markets and essential services. The generally poor condition of local roads means that construction-related detours could be particularly challenging for the community. Public transport is ensured through continuous minibuses routes.



Conclusion on concerns raised, proposals, expectations after community engagement: residents raised several concerns regarding road safety, noise levels, pedestrian mobility, and the need for grade-separated crossings to facilitate safe movement of both agricultural machinery and local households as the future. People concerned about the circulation of heavy vehicles and private cars that avoid the upper section of the M3, reportedly due to video-monitoring, and instead divert through the village centre at high speeds, increasing risk for pedestrians and vulnerable groups. Participants requested the installation of a restrictive traffic sign at the village entrance from the M3 side to prevent unsafe transit through residential areas. The condition of local road raised 63 grievances from local residents.

Table6-38: Main localities Lot 3**Lot 4 (Giurgiulești bypass and border connections, 6.2 km)****Socio-economic description of localities**

Giurgiulești is a village and commune in Cahul district. The village has an area of about 2.77 square kilometres, with a perimeter of 6.78 km. Giurgiulești is the only village in the commune with the same name. The locality is located 55 km from the city of Cahul and 250 km from Chișinău. The town is in the southernmost part of the country, on the border with Romania and Ukraine, on the banks of the Prut River, where it flows into the Danube. The port adjacent to the town is the only Moldovan port on the Danube. The population of the village counts 1850 people (885 men - 965 women).

Structured by age – 0-14 – 18,0%, 15-64 – 72,2%, 65+ – 9,8%. Households – 817. Predominant Ethnicity – Romanian – 95,5%, Ukrainian – 0,5%. Households' characteristics: Households with children (0-17 age) – 44,9 %, of which 3+ children – 13,1%, 1 person households – 14,4%, 1 elderly households (65+) – 7,0%. Households with water supply access: 4,5% without access, 82,0% with own system, 13,5% with public system. Household's access to sewerage system: without a system – 49,4%, with own system – 50,6%, with public system – 0,0%. 91% of the households are connected to natural gas.



Giurgiulești is Moldova's only settlement with combined road, rail, river, and maritime access. The village of Giurgiulești, unlike other localities in the district, is an economically strategic locality at both regional and national level, with an agglomeration of economic agents in the Giurgiulești International Free Port. Giurgiulești Free International Port (GIFP) operates as a Free Economic Zone (with 40 registered enterprises) (FEZ) (status currently valid to 2030). Due to Lower Danube depths (to ~7 m), GIFP receives both river and sea-going vessels, making it a national and regional logistics node. The local economy combines (i) traditional agriculture and peasant households with (ii) logistics, storage, and processing anchored by GIFP. Within GIFP, key assets include:

- Fuel terminal (BEMOL): ~63,600 m³ capacity (8 tanks).
- Vegetable oil terminal: ~6,000 t storage; nearby sunflower oil plant (~10,000 t).
- Bulk cargo terminal (Trans Cargo Terminal): ~50,000 t capacity.
- Container/general cargo terminal, Ro-Ro terminal.
- Mixed-gauge rail terminal enabling broad/standard gauge transfers for liquids and bulk cargo.

Recent and planned upgrades on the Romanian side (e.g., Galați port rail connectivity, link to the Brăila Danube Bridge) and GIFP expansion influence freight routing and border queuing. These create cumulative and transboundary traffic effects relevant to Lot 4 operation.

Recent and planned investments in the region:

- The bridge connecting Galați (Romania) and Giurgiulești (Moldova), originally built in 1949, was rehabilitated in 2021. In 2022, the broad-gauge railway line linking Galați Port to Giurgiulești was reopened under a CFR Infrastructure project, enabling freight trains from Ukraine carrying grain to unload directly at Galați Port without transshipment at the border.
- Additional road infrastructure investments are being implemented near the Giurgiulești border crossing point. Under a project of the Galați County Council and the Romanian National Road Company, a modern road link will connect the Giurgiulești customs area to the Brăila Bridge over the Danube.
- The expansion of the Giurgiulești cargo port is planned, with an ESIA prepared and under transboundary review and approval.
- The construction of the M3 Chișinău–Giurgiulești national road (Slobozia Mare bypass), financed by the European Bank for Reconstruction and Development (EBRD), is nearing completion.
- The reconstruction of the Giurgiulești–Galați Border Crossing Point and the customs control platform is being undertaken under the World Bank-financed Moldova Rural Connectivity Project.

On the route connecting the border crossing points Giurgiulești - Reni, Giurgiulești - Galați there are four PECO stations. The local economy is represented by 20 economic agents in the village, 817 initially registered peasant households, at the moment, registered with the tax office, with the provision of tax codes about 50 peasant households. In total, about 1132.1 ha are cultivated in the locality by 3 mains agricultural joint stock companies: "Daniub"; "Cos-Nicol"; "Reco Agro". The village hosts a lyceum, kindergarten, cultural centre, museum, recreation park, health centre, small retail and services (auto repair, fuel stations, car wash, pizzeria). Telecoms include multiple mobile operators; internet via fibre; natural gas and potable water networks are present; sewerage network construction is ongoing (confirm sections commissioned vs planned).

Conclusion on concerns raised, proposals, expectations after community engagement: residents raised several concerns regarding noise, vibration, air emissions from heavy trucks, temporary mobility risks due to construction traffic, access restrictions for small businesses, shops. Border Police and Customs propose to be developed an additional dedicated truck parking area close to M3/M3.1 connection intersection with Slobozia Mare bypass. Positive expectation on bypass to divert heavy trucks away from the village, improved safety, reduced congestion, socio-economic development benefits.

Cîșlița-Prut is a village and commune in Cahul district. The village has an area of about 1.52 square kilometers, with a perimeter of 6.36 km. Cîșlița-Prut is the only village in the commune with the same name. The locality is located 47 km from the city of Cahul and 209 km from Chișinău. According to the 2024 census data, the commune of Cîșlița-Prut, has a population of 760 inhabitants (345 men, 415 women)

Structured by age – 0-14 – 18,0%, 15-64 – 72,2%, 65+ - 9,8%. Households – 370. Predominant Ethnicity – Romanian – 97,7%, Roma - 1,3%. Households' characteristics: Households with children (0-17 age) – 38,9 %, of which 3+ children – 9,0%, 1 person households – 20,0%, 1 elderly households (65+) - 11,6%. Households with water supply access: 29,5% without access, 61,9% with own system, 8,6% with public system. Households access to sewerage system: without a system – 78,9%, with own system – 21,1%, with public system-0,0%

Economic profile Cîșlița-Prut is located in the Lower Prut floodplain, near wetlands and eco-tourism sites. Economy based on mixed agriculture (cereals, sunflower, vegetables), livestock, fishing, and seasonal labour. Limited non-agricultural employment; some commuting to Cahul and Giurgiulești. Household income Primary: Crop and livestock farming; seasonal agricultural work. Secondary: Remittances, pensions, occasional fishing income. Climate-sensitive income patterns (drought, groundwater variability, occasional flooding). Social institutions primary school and kindergarten; rural medical point., social worker services, cultural house, church, community volunteer structures. **Conclusion on concerns raised, proposals, expectations after community engagement:** residents raised several concerns regarding noise, vibration, air emissions from heavy trucks during construction, temporary mobility risks due to construction traffic. Cumulative positive expectation due to bypass Slobozia-Mare and bypass Giurgiulești as more



heavy traffic will be redirected to Slobozia-Mare bypass to Giurgiulești bypass where truck parking facility and customs temporary parking area will be operated.

Table6-39: Main localities Lot 4

Across all localities situated within the Area of Influence (Aol) of the M3 road corridor, the socio-economic baseline conducted between 10-26 February 2026 (detailed description of community engagement and baseline survey resume in **ANNEX G of SEP**) reveals a set of recurring demographics, livelihood, safety, environmental, and vulnerability patterns that shape community needs and expectations in relation to the Project.

Demographically, Aol settlements are characterised by predominantly working-age populations, typically ranging between 80–95% of respondents. The majority of households are composed of long-term residents who have lived near the M3 corridor for more than 20 years, indicating strong attachment to place and high sensitivity to changes in mobility, access, and environmental conditions arising from road reconstruction activities.

Livelihood patterns across all communities show that salaried employment constitutes the primary source of household income, supplemented in many cases by entrepreneurial activity, small-scale agriculture, or seasonal work. Agriculture represents a key component of the local economy, particularly from a business perspective, as many residents lease their land to agricultural operators. At the household level, farming continues to play an important role, providing both subsistence production and supplementary income for a substantial share of families. Remittances—though present—represent a secondary contribution to household budgets. Overall, most respondents perceive the rehabilitation of the M3 as beneficial for livelihoods, anticipating improved access to employment centres, services, and local markets.

Vulnerability considerations show recurring patterns across localities. Elderly people living alone, households with young children, persons with disabilities, and low-income or single-income households were identified as the groups most sensitive to mobility restrictions, noise, dust, and construction-related disturbances. Communities repeatedly highlighted that these groups may require additional support during construction, particularly in relation to access to services, safe mobility, and communication regarding works.

Road safety issues are among the most consistently reported concerns. Unauthorized accesses to the M3, insufficient lighting, and unsafe pedestrian behaviours—often related to the lack of dedicated crossings or poorly positioned bus stops—were common across nearly all localities. Agricultural machinery continues to use the M3 corridor due to fragmented or poor-quality alternative routes, creating conflict between slow-moving equipment and high-speed traffic. In several communities, residents reported a high perception of accident risk, reinforced by past incidents, irregular manoeuvres to avoid grade-separated intersections, and difficulties merging onto the highway during peak hours.

Environmental concerns across all Aol communities centre on dust, noise, and vibration associated with both current road conditions and anticipated construction activities. Some localities also cited issues related to unauthorized landfills and limited sewage or wastewater treatment infrastructure. Residents living closest to the road—particularly in peri-urban settlements—express higher sensitivity to cumulative noise exposure.

Gender dynamics across the corridor generally reflect balanced roles and shared household decision-making, with only isolated reports of gender-based violence (GBV). While women did not report systemic gender-

related constraints, they expressed comparatively higher concern regarding interactions between non-local workers and the community, highlighting the importance of a robust Worker Code of Conduct and supervision measures.

Occupational health and safety (OHS) and community–worker interaction remain areas with low public awareness. Most residents lack familiarity with construction-related OHS requirements, signalling the need for targeted communication on restricted zones, PPE, and safe navigation during construction. Concerns regarding worker behaviour—particularly raised by women—underscore the importance of clear contractor rules, monitoring, and accessible grievance mechanisms.

Summary: Overall, the socio-economic profile of Aol communities along the M3 corridor demonstrates strong community engagement, a high degree of dependency on the road for mobility and livelihoods, and persistent concerns regarding road safety, environmental conditions, and access management. Vulnerable groups present heightened sensitivity to disruptions, while communities' express clear expectations for improved infrastructure, effective traffic safety solutions, better lighting, and reliable access arrangements. If these needs are integrated into project design and construction planning, the Project holds high potential to generate significant positive socio-economic benefits across all localities.

6.8.6. Social Receptors identified over the Project Area (Lot 1-4)

| Receptor Identified ³⁵ | Aprox. chainage (km) ³⁶ | Side (Left/Right) | Description / Potential impact |
|---|------------------------------------|-------------------|--|
| Lot 1 Chişinău-Porumbrei | | | |
| Business petrol station and parking area (TLX) | 11+106 | Right | Directly accessed from the M3. Anticipated impacts include temporary access restrictions, noise, air emissions, and vibration during construction and operation. |
| Business EUROFASAD PRIM Distribution center | 11+245 | Left | Industrial facility adjacent to the road and direct access. Potential impacts: temporary access constraints, elevated noise and vibration, and reduced air quality. |
| Residential area of Băcioi Commune | 12+680 14+230 | Left | Closest dwellings located 15–45 m from M3. Potential impacts: noise, vibration, and reduced air quality during construction and operation. Noise barriers or façade insulation may be required where modelling indicates exceedances. Additional potential impacts regarding access and traffic restrictions, health and welfare of the local community, economic development. No land acquisition or economic displacement is estimated on this area. |
| Christian Church Nativity of the Virgin Mary | 13+250 DD 3+250 | Left | Church located ~17 m from road. Main impacts: noise and vibration during construction, temporary access disturbance. In stakeholder consultation, Băcioi mayor requested access via Plopilor Street to M3 road; not included in current design. |
| Business - Truck Service and Repair | 14+446 | Right | No direct road access to M3 road; connection via local streets and road junction. Impacts: noise, dust, air quality |

³⁵ business, social-cultural building or area, school, residential area with close proximity

³⁶ indicative map www.andsa.md

| Receptor Identified ³⁵ | Aprox. chainage (km) ³⁶ | Side (Left/Right) | Description / Potential impact |
|---|------------------------------------|-------------------|---|
| | | | and temporary access restrictions during construction. |
| Residential area of Străisteni village (Bacloi commune) | 14+525 15+455 | Right | Residential dwellings 15–45 m from road. Potential impacts: noise, dust and temporary access limitations during construction; vibration from HGV traffic in operation. Additional potential impacts regarding access and traffic restrictions, health and welfare of the local community, economic development. No land acquisition or economic displacement is estimated on this area. |
| Business - Kors Tyres and truck parking area | 15+890 | Right | Industrial facility with direct access to M3 road. Potential impacts: noise, dust, air quality and temporary access restrictions during construction, temporary access restrictions and traffic management issues during construction. |
| Future Industrial zone of Bacloi commune | 16+381 | Left | Area planned by Bacloi commune in the Socio-Economic Development Strategy for industrial development with proposed direct access to M3. Cumulative impacts expected with future land development (traffic, air, noise). |
| Business - Private Aerodrom Aero Team Moldova | 24+265 | Left | Facility located ~300 m from road. Potential impacts: noise, dust, air quality and temporary access restrictions during construction, temporary access restrictions and traffic management issues during construction. |
| Fishing Area / Farm Enterprises (SRL DEPLOMAT, SRL BÚFFALO FARM, etc.) | 25+124 | Left, right | Agricultural and fish farm facilities along access roads. Potential impacts: noise, dust, air quality and temporary access restrictions during construction, temporary access restrictions and traffic management issues during construction. |
| Rompetrol petrol station | 26+620 | Left | Impacts: Access restrictions, noise, air pollution and vibration impact during both construction and operation phases. |
| Food market and restaurant | 26+797 | Right | Impacts: Access restrictions, noise, air pollution and vibration impact during both construction and operation phases, economic development. No economic displacement is estimated. |
| Annual Cultural Festival Area – National Treasure Event (Horești) . | 26+895 | Left | Temporary gathering area for weekend festivals. Impacts: noise, access restrictions, and safety for participants during construction. Mitigation: coordinate work schedules to avoid festival periods. |
| Răzeni Residential Area | 30+930 32+740 | Right/Left | Residential buildings located 25–60 m from road. Main impacts: noise, dust, and vibration during construction and operation. Additional potential impacts regarding access and traffic restrictions, health and welfare of the local community, economic development. No land acquisition or economic displacement is estimated on this area. |
| Public Garden Răzeni | 31+300 | Right | Public space located 200 m from road. Potential temporary impacts: dust and noise during construction. |
| Church Isus Păstorul cel Bun | 32+500 | Right | Is situated around 360 m from the side of the road. Main impacts: noise and vibration during construction, temporary access disturbance. |
| Business in the Residential Area close to the road: Petrol Station, Floare de Cireș, Food Catering, food markets, service station. | 31+228 | Right | The distance starts from 25 m from the side road. Impacts: Access restrictions, noise, cumulative air pollution and vibration impact during both construction and operation phases. |
| Cemetery of Răzeni | 31+450 | Left | The distance is 60 m from the side of the road. In the |

| Receptor Identified ³⁵ | Aprox. chainage (km) ³⁶ | Side (Left/Right) | Description / Potential impact |
|--|------------------------------------|-------------------|--|
| Village | | | scoping stage was emphasized by the mayor and some resident's necessity of physical division of traffic directions with the installation of barriers which would exclude crossing from one direction to another by pedestrians. The main actual safety risks represents when population cross the road to have access to cemetery which is situated on opposite side of the main village. Potential impacts during construction: Access restrictions, noise, and vibration impact. |
| Business angro food trader Selena Bivol Sagaidacul Nou village, part of Porumbrei Commune | 40+150 | Left | Is situated 50 m from the side of the road and has an area more than 50ha of crops and administrative area. Impacts of the Project: access management, impacts related to construction phase. |
| Sagaidacul Nou Residential Area, part of Porumbrei Commune | 41+753 42+77 | Left | The proximity residential buildings start from 50 m from the side of the road. Estimated impacts related to construction phase. During operation, noise levels may increase due to higher traffic volumes. |
| Monastry Învieria Domnului Sagaidacul Nou | 42+500 | Left | Is situated 260 m from the side of the road. Potential impacts: temporary disturbance from construction noise and dust, and increased traffic safety risks for congregants. |
| Lot 2 Porumbrei – Cimislia | | | |
| Porumbrei Residential Area | 44+530 45+680 | Right | Residential dwellings located 25–50 m from the road. Main impacts: construction noise, vibration, dust, and temporary access restrictions. During operation, noise levels may increase due to higher traffic volumes. |
| Porumbrei Gimnasyum | 44+775 | Right | Is situated 460 m from the side of the road. Potential impact: lack of information of vulnerable groups – children and institutions about project actions and security measures, construction noise, vibration, dust, and temporary access restrictions. |
| Adventist Church „Ziua a Șaptea,, Porumbrei village | 45+200 | Right | Religious institution close to M3; estimated distance ≈ 70 m. Potential impacts: temporary disturbance from construction noise and dust, and increased traffic safety risks for congregants. |
| Sagaidac residential area | 49+115 | Left | Is connected with M3 having access to the village through road junction. Impact: temporary community access issues during construction phase. |
| Grădiște, Coștangalia Residential Area (Gymnasium Gradiște) | 55+961 | Left/Right | Both localities are connected to M3 road through road junction which connects to local road L559.1. In scoping stage consultation was mentioned that everyday children from Coștangalia are transported by transport to Gradiște Gymnasium. Potential impact: lack of information of vulnerable groups – children and institutions about project actions and security measures. Impacts related to construction phase activities. |
| Ecaterinovca residential area | 63+383 | Right | Locality is connected with M3 with connected road E584. Impact: temporary community access issues during construction phase. Cumulative impacts for community can occur if bypass Cimislia will be developed at the same time with M3 lot 2 extension. |
| Cimislia Technical school | 63+435 | Left | Technical school is situated on E584 road crossing with M3. Cumulative impacts can occur if bypass Cimislia will |

| Receptor Identified ³⁵ | Aprox. chainage (km) ³⁶ | Side (Left/Right) | Description / Potential impact |
|--|------------------------------------|-------------------|--|
| | | | be developed at the same time with M3 lot 2 extension. |
| Cimislia residential area | 63+400 | Left | Dwellings near L5591 local road connected to M3. Impacts: construction noise, vibration, dust, and temporary disruption to local traffic and pedestrian safety. Additional potential impacts regarding access and traffic restrictions, health and welfare of the local community, economic development. No land acquisition or economic displacement is estimated on this area as land acquisition was performed in phase 1. Cumulative impacts possible if other sections are under construction concurrently. Mitigation: controlled access, speed limits near school zone, and engagement with local administration. |
| Lot 3 Cimislia-Comrat | | | |
| Ciucur Mingir Residential Area | 76+000 79+150 | Left | Residential buildings located 25–60 m from the road alignment. Potential impacts include noise, vibration, and temporary access restrictions during construction. During operation, increased traffic volumes may raise noise and air-quality levels. Noise barriers or low-noise surfacing should be evaluated where modelling indicates exceedances. |
| Gymnasium and Stadium Ciucur-Mingir | 78+100 78+200 | Left | Education and sports facilities located near M3 Lot 3 (approx. 50 m). Direct impacts: construction-related noise, dust, vibration, and traffic safety risks for students. Cumulative impacts possible if Cimislia bypass and local road works occur simultaneously. |
| Lot 4 Giurgiulesti bypass, connection road CBP | | | |
| Cîșlița-Prut residential area | 205+500 | Right | The village is located within ~2 km of the new bypass. Direct impacts relate to land acquisition, construction noise, vibration, and temporary access constraints. Cumulative impacts may occur due to concurrent works on the M3 Chișinău–Giurgiulești road (Terminal Customs Facilities) near Cîșlița-Prut and nearby infrastructure. |
| Giurgiulesti Residential area | 211+870 212+900 | Right | Closest residential area to the project alignment; nearest dwellings approximately 3–5 m from the M3 connection border points. Land acquisition impacts for bypass sector. Anticipated impacts during construction and operation include noise, dust, vibration, and traffic safety risks. Community engagement should ensure awareness of construction schedules and grievance channels. |
| Businesses located on the road connecting Giurgiulesti-Galati, Giurgiulesti-Reni, and Giurgiulesti International Free Port, (GIFP). | 211+870 212+900 | Right/Left | Businesses within the Free Economic Zone (FEZ) and near the Border Crossing Point (BCP) will experience temporary access restrictions and cumulative effects from overlapping projects — the Giurgiulești–Galați BCP rehabilitation and GIFP expansion. Potential impacts: construction traffic congestion, noise, vibration, and air emissions. Requires coordination with border and port authorities to align works and maintain logistics continuity. |
| Residents of the Free Economic Zone (Giurgiulești FEZ) | 211+870 – 212+900 | Right | Residential and worker accommodation areas within the FEZ may be affected by increased traffic and reduced accessibility during construction. Cumulative impacts expected with other transboundary developments. |

Table6-40: Social Receptors identified over the Project Area (Lot 1-4)

Abbreviations: FEZ – Free Economic Zone; BCP – Border Crossing Point; GIFP – Giurgiulești International Free Port; L/R – Left/Right relative to road direction.

The table below presents a preliminary assessment of access points along Lot 1, based on the physical situation observed on site (authorised/unauthorised accesses) and the existing detailed design prepared in 2015. It should be noted that NCM D.02.01:2024 "Roads and Bridges. Design of Public Roads" regulates the distance between on- and off-ramps to the road, and for the current road category, unauthorised accesses to the roadway should be restricted. Where direct accesses require closure or consolidation to comply with national standards, alternative routes and safe connection options must be assured to maintain adequate connectivity for residents, agricultural users, and local businesses.

Therefore, final recommendations for upgrading existing access ramps and establishing alternative routes will be based on road safety audit data and will be included in the stand alone Road Safety Audit document. The information is provided to support the Road Safety Audit (RSA) process by identifying the current configuration of access routes and determining the extent to which they comply with road safety requirements. This assessment is intended to ensure that all landowners and residents retain adequate and safe access, either through existing connections or through alternative routes. The detailed design will be updated in line with RSA recommendations, including the refinement of existing alternative access routes or, where necessary, the provision of a parallel service road.

| Chainage from design | Side | Access to | Comments | Alternative route (Yes/No) |
|----------------------|-------|---------------------------------------|---|----------------------------|
| 1+300 | Left | Commercial | Design did not provide anything regarding this (it is a side drain in front the property) | Yes |
| 1+680 | Right | existing junction to agriculture road | shown in design plan but not kept | Yes |
| 1+760 | Left | existing junction to agriculture road | not shown in the design and not foreseen | Yes |
| 3+025 | Right | existing junction to agriculture road | not shown in the design and not foreseen | Yes |
| 3+175 | Left | str. Plopilor | shown in design plan but not kept | Yes |
| 5+180 | Right | access to street to properties | not shown in the design and not foreseen | Yes |
| 5+350 | Right | direct access to property | not shown in the design and not foreseen | RSA alternative designing |
| 5+370 | Right | direct access to property | not shown in the design and not foreseen | RSA alternative designing |
| 5+378 | Right | direct access to property | access to street to properties | RSA alternative designing |
| 5+700 | Right | access to street to properties | access to street to properties | Yes |
| 5+820 | Right | access to street to properties | Big commercial access kept but not exactly how is set | RSA alternative designing |
| 6+307 | Left | existing junction | kept and foreseen in the design, new developing area | RSA alternative designing |
| 6+580 | Right | existing junction to agriculture road | shown in design plan but not kept | RSA alternative designing |
| 9+340 | Right | existing junction to agriculture road | foreseen in the design | RSA alternative designing |
| 9+575 | Left | existing junction to agriculture road | foreseen in the design | RSA alternative designing |
| 10+100 | Left | existing junction to agriculture road | not shown in the design and not foreseen | Yes |
| 11+735 | Right | existing junction to | not shown in the design and not foreseen | RSA |

| Chainage from design | Side | Access to | Comments | Alternative route (Yes/No) |
|----------------------|-------|---|---|----------------------------|
| | | agriculture road | | alternative designing |
| 12+750 | Right | existing junction to agriculture road | foreseen in the design | RSA alternative designing |
| 13+180 | Left | existing junction to agriculture road | shown in design plan but not kept | RSA alternative designing |
| 14+170 | Left | existing junction to agriculture road | shown in design plan but not kept | RSA alternative designing |
| 14+195 | Right | existing junction to agriculture road | shown in design plan but not kept even there is a culvert built | RSA alternative designing |
| 15+250 | Left | existing junction with road to property | Red House Agreement zone near a big lake (Horesti) shown in the design but not kept (fenced) | RSA alternative designing |
| 16+320 | Left | existing junction to agriculture road | shown in design plan but not kept | Yes |
| 19+980 | Left | existing used access to agricultural road | not shown in the design and not foreseen | Yes |
| 19+980 | Right | existing used access to agricultural road | not shown in the design and not foreseen | Yes |
| 20+220 | Left | unauthorized access to parallel agricultural road | not shown in the design and not foreseen | Yes |
| 20+580 | Left | existing road without access to M3 | in design it is written as it "looks like electroline", instead of this road | Yes |
| 21+360 | Right | existing access with culvert over the ditch | shown in design plan but not kept | Yes |
| 21+460 | Left | existing access from commercial area | unclear if kept or other things (no changes maybe) | RSA alternative designing |
| 21+510 | Left | entering access to commercial area | unclear if kept or other things (no changes maybe) | RSA alternative designing |
| 22+650 | Right | entering access to local road to properties | shown in design plan but not kept | Yes |
| 22+700 | Right | entering access to local road to properties | shown in design plan but not kept | Yes |
| 22+740 | Right | entering access to local road to properties | shown in design plan but not kept | Yes |
| 22+900 | Left | entering access to local road to properties | shown in design plan but not kept, fenced | Yes |
| 22+955 | Right | entering access to local road to properties | shown in design plan but not kept, slide drain also designed on it event this road has culvert over the ditch and shown on the design | Yes |
| 24+200 | Right | existing used access to agricultural road | not shown in the design and not foreseen | Yes |
| 24+660 | Right | existing used access to agricultural road | shown in design plan but not kept | RSA alternative designing |
| 28+080 | Left | existing used access to agricultural road | shown in design plan but not kept | Yes |
| 28+225 | Left | existing used access to agricultural road | shown in design plan but not kept | RSA alternative designing |
| 30+050 | Left | access to solar power plant | not shown in the design and not foreseen | RSA alternative designing |
| 31+050 | Right | access road to properties | not shown in the design and not foreseen | Yes |
| 31+725 | Right | access road to properties | shown but not kept | RSA alternative designing |

| Chainage from design | Side | Access to | Comments | Alternative route (Yes/No) |
|----------------------|-------|--------------------|--|----------------------------|
| 31+755 | Right | side road junction | unclear if kept, (need additional check) | RSA alternative designing |
| 31+755 | Left | side road junction | unclear if kept (need additional check) | RSA alternative designing |
| 32+405 | Left | side road junction | unclear if kept (need additional check) | Yes |

Table6-41: Preliminary evaluation of existing and project design accesses for Lot 1

6.8.7. Disadvantaged and vulnerable groups

In the context of the ESIA and in accordance with the EBRD Environmental and Social Policy (2019), vulnerability refers to the reduced ability of an individual, household, or community to anticipate, cope with, resist, or recover from the adverse impacts of a project. Vulnerable groups are those who may experience disproportionate or differential effects during project planning, construction, or operation because of their social status, economic condition, health, age, gender, disability, geographic isolation, or other context-specific factors.

Vulnerability is therefore context-dependent and may vary across the M3 corridor depending on local demographic characteristics, access to services, land dependence, income levels, and exposure to environmental and health risks.

In Moldova, vulnerable groups are identified through multiple national policies, statistical instruments and social protection frameworks, including the National Social Protection Strategy, Law on Social Assistance, Household Budget Survey data, and district-level social service records.

Nationally recognised vulnerable groups typically include: **Elderly persons**, particularly those living alone or in rural isolated households, **Women-headed households and women at risk of GBVH**, **Low-income households**, including those dependent on social allowances, **Children, including preschool and school-aged children**, **People with disabilities or chronic health conditions**, **Large households (5+ persons)** with limited income stability, **Roma or minority groups**, where present (identified through voluntary self-affiliation), **Migrant or remittance-dependent** households, **Households without secure tenure** or informal land users.

Vulnerable groups were identified through review of demographic data from LPAs (Local Socio-Economic Development Strategies developed by each community), from the conducted primary data collection (Socio-Economic Baseline Survey), information provided by social assistants, and field observations during site visits. Criteria included gender, age, disability, income, ethnic or linguistic status, and geographic isolation. This approach follows the methodology outlined in EBRD Guidance Note (2012) § 3.3 – Identifying and Engaging Vulnerable Groups.

| Group | Specific concerns / Potential impacts | Tailored engagement measures |
|---|---|--|
| Women and female-headed households | May face safety and mobility risks during construction; limited representation in decision-making | Targeted invitations to meetings; ensure female facilitators and timing compatible with household duties |
| Elderly persons | Reduced mobility; difficulty accessing information or venues | Use local noticeboards, home visits, and LPA outreach; provide seating/transport to events |
| Persons with disabilities | Physical access limitations to consultation sites; safety risks at crossings | Ensure barrier-free venues; coordinate with social workers |
| Low-income or unemployed households | Greater sensitivity to temporary access or income disruption | Deliver information via social assistants; highlight local employment opportunities |
| Ethnic or linguistic minorities (Gagauz, Roma, Russian speakers) | Language barriers and low trust in institutions | Provide translated materials (RO/RU) and bilingual facilitators; engage community leaders |
| Children, students, at home and at education facilities | Safety risks from construction traffic near schools | Coordinate awareness sessions with teachers and LPAs |

Table 6-42: Overview of the identified vulnerable groups and engagement measures

6.8.8. Community health and safety

The Republic of Moldova operates a universal healthcare system, predominantly publicly owned and centrally governed. The health sector is regulated through a hierarchical system of public administration, in which the Government approves national health policy and the Ministry of Health (MoH) acts as the central competent authority for policy development, regulatory oversight, and quality monitoring.

Key legislative instruments include:

- Law No. 411/1995 on Healthcare, defining the organisation, principles, and responsibilities of the national health system.
- Law No. 263/2005 on Patient Rights and Responsibilities, establishing patient protection and minimum service standards.

Strategic direction is set by the National Strategy “Health 2030”, which outlines seven intervention areas: public health; integrated and quality services; affordable medicines; governance; human resources; digitisation; financial sustainability.

The National Healthcare Insurance Company (NHIC) (Government Decision No. 950/2001) manages the mandatory insurance system, including fund administration, service quality monitoring and implementation of the coverage programme.

Public health financing remains constrained, with public expenditure on healthcare at 5.4% of GDP (2024). Despite universal coverage, out-of-pocket payments remain widespread due to limited funding of the benefits package and the absence of a formal co-payment policy.

State-funded insurance covers vulnerable groups including: children, students, pregnant women, persons with disabilities, pensioners, registered unemployed, caregivers, disadvantaged families, veterans, organ donors, and beneficiaries of international protection.

Structure and Capacity of Health Services Healthcare provision remains predominantly public, though private diagnostic and ambulatory services have grown in the past decade.

Service package under compulsory insurance includes emergency pre-hospital care, primary healthcare,

specialist outpatient care, inpatient care, high-performance diagnostics and home-based care.

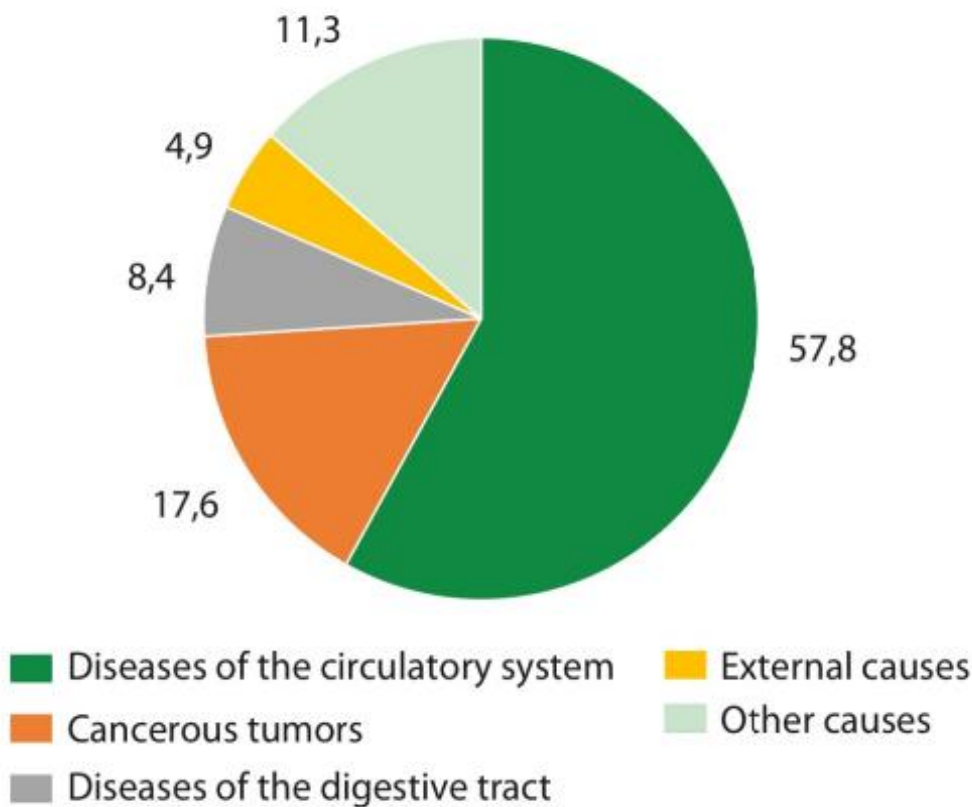
Demographic and Health Profile Moldova faces intersecting demographic pressures:

- population ageing,
- population decline, and
- increasing morbidity trends across chronic and communicable diseases.

Diseases of the circulatory system represent the main and most common cause of death, causing more than half of all deaths. In 2023 the share of deaths due to this cause increased only 0,2 percentage points compared to 2022 and constituted 57,8% of all deaths. Other diseases, which have a major impact on mortality, are tumours and cancer, from which about 6 thousand people die annually. These risk factors point to deficiencies in the detection and treatment of chronic conditions, underdeveloped public health interventions and issues with the general living conditions of the population. Relevant factors include an unbalanced diet rich in animal fats, underdeveloped food safety, lack of food in some households (particularly in rural), and poor feeding practices for infants and young children. One of the most common project objectives for NGOs is to increase community knowledge and awareness of health and nutrition³⁷.

³⁷ <https://www.asp.gov.md/sites/default/files/date-deschise/lista-beneficiarilor-desemnarii-procentuale/Lista-asociatiilor-funda%C5%A3iilor-anul-2024.pdf>

Structure of deaths by major classes of causes of death, in 2023 (%)



Source: National Agency for Public Health

Figure 6-40: Classes of death

Significant urban–rural health disparities persist:

- 52% of urban residents perceive their health as good/very good vs. 31% in rural areas.
- Urban households spend a higher proportion on medical services (5.1% of expenditures vs. 3.6% rural).

Rural communities experience longer distances to medical facilities, shortages of medical staff, and limited access to diagnostic and emergency services.

The characteristics of the national health system have direct implications for the Community Health and Safety (CHS) baseline along the M3 Project corridor.

Limited Rural Healthcare Capacity Along Lots 1–4 Villages located along Lots 1–4 (Băcioi commune (with localities Brăila, Frumușica and Străisteni), Răzeni (with the village Milestii Noi), Horești commune (with the villages Zîmbrești, Găureni), Țipala commune (with localities Budăi, Bălțați), Sagaidacul Nou village, Grădiște village, Ecaterinovca commune (with Costangalia village), Ciucur-Mingir, Cîșlița-Prut, Giurgiulești, etc.) typically rely on:

- small family doctor centres or medical points, often with only one doctor or nurse;
- limited opening hours and insufficient emergency equipment;

- absence of specialised services or pharmacies.

Therefore, local residents depend heavily on district hospitals in Chişinău, Ialoveni, Cimişlia, and Cahul, all of which are accessed via the M3 corridor.

High Dependence on the M3 for Access to Emergency and Specialist Healthcare For the majority of rural settlements along the project corridor, the M3 functions as the primary transport route to district-level medical services, including:

- emergency trauma care,
- obstetric and maternal health services,
- paediatric and chronic disease management,
- advanced diagnostics (radiology, cardiology),
- inpatient care.

Any disruption caused by construction—lane reductions, speed restrictions, diversions, or night works—has the potential to increase ambulance response times, delay treatment for vulnerable populations, and exacerbate pre-existing access constraints.

Sensitivity of Receptors due to Demographic and Socio-economic Context Rural communities along the M3 are characterised by:

- higher shares of elderly residents,
- greater incidence of chronic health conditions,
- lower household incomes,
- lower levels of health self-perception,
- reduced capacity to pay for out-of-pocket care.

These factors heighten susceptibility to dust, noise, vibration, air emissions, and traffic-related accidents, all of which are potential project impacts during construction and operation.

High Existing Demand for Emergency Medical Services With over 754,000 emergency requests annually, Moldova's emergency care system already operates under significant pressure. Delays along the M3 can lead to:

- increased morbidity and mortality (stroke, cardiac events, trauma),
- delayed maternal and child health interventions,
- reduced access to urgent care for road accidents or construction-related injuries.

Indicative table is a indicative table for NRA and Executive Contractor purposes to be included in Management Plans.

| M3 Lot | Healthcare Provision in the Project Area (Public, Private) | Project Localities |
|--------|---|---|
| 1-4 | National Emergency: Use 112 for situations that require an immediate response from the police, medical, or fire services | all |
| 1 | Public Health Center Bacioi, str.Independenței 125/1 com.Bacioi, call center +373(22) 383-239, cs.bacioi@ms.md , https://cs-bacioi.md/ , Galaxia Primary Healthcare: Branch OMF nr. 6 a Family Health Center „GALAXIA”, str. Băcioii-Noi 14/1, MD-2029, www.galaxia.md | Bacioi commune |
| 1 | District Hospital Ialoveni, srialoveni@ms.md , Ialoveni city, 7 Alexandru cel Bun street, +373 268 22268 . Public Health Center Ialoveni, cs.ialoveni@ms.md +373 (0268) 2-12-52, str. Bulevardul Alexandru cel Bun 7, MD-2062, Ialoveni, www.csialoveni.md , Ialoveni Community Mental Health Center, www.sanatate-mintala.md , str. | Horești commune, Țipala commune, Răzeni commune |

| | | |
|-----|---|---|
| | Alexandru cel Bun 7, Ialoveni, casm.ialoveni@ms.md , +373 26827550 | |
| 1,2 | District Hospital Cimișlia, MD-4100 Cimișlia, str. Alexandru cel Bun, 135, srccimislia@ms.md , +373 241 26058 Public Health Center Cimișlia, MD-4100 Cimișlia, str. Alexandru cel Bun, 135, cs.cimislia@ms.md +373 241 23989 Cimișlia Community Mental Health Center, www.sanatate-mintala.md MD-4100 Cimișlia, str. Alexandru cel Bun, 135A, casm.cimislia@ms.md +373 241 22454 | Cimișlia city, Porumbrei village, Săgaidacul Nou village, Grădiște village, Ecaterinovca commune, Ciucur-Mingir village |
| 3 | Primary Healthcare Ciucur Mingir +373 241-30242 | Ciucur-Mingir village |
| 4 | District Hospital Cahul www.spital.md str. Ștefan cel Mare 120, MD-3905, Cahul, +373 299 22 448, imspcahul@ms.md Public Health Center Cahul, www.cs-cahul.md ,str. Ștefan cel Mare 27, MD-3909, Cahul +373 299 22 428 . Cahul Community Mental Health Center, www.sanatate-mintala.md , str. Ștefan cel Mare 27, MD-3909, Cahul, +373 299 32 709 casm.cahul@ms.md | Cîșlița Prut, Giurgiulești village |

Table6-43: Healthcare provision in the Project Area: There are no sanitary zones within the Aol of the Project.

6.8.9. Road Safety and accident history

The Republic of Moldova remains among the countries with the most dangerous roads in Europe, despite some progress in recent years. Official data shows that, at the end of 2024, the mortality rate on national roads was 8.3 deaths per 100,000 inhabitants, almost double the European average of 4.4 deaths³⁸.

In 2024, 2009 (+1.36%) road traffic accidents were recorded on the territory of the Republic of Moldova (excluding the region on the left bank of the Dniester River) (1982 in 2023). These resulted in a cumulative 209 (+5.56%) deaths (198 in 2023) and 2369 (+3.49%) injuries (2289 in 2023).

Of the total number of victims, 444 or 17.22% were minors (436 in 2023). Eight died (17 in 2023), 323 were slightly injured (301 in 2023), 97 were seriously injured (84 in 2023), and 16 did not suffer any injuries (34 in 2023).

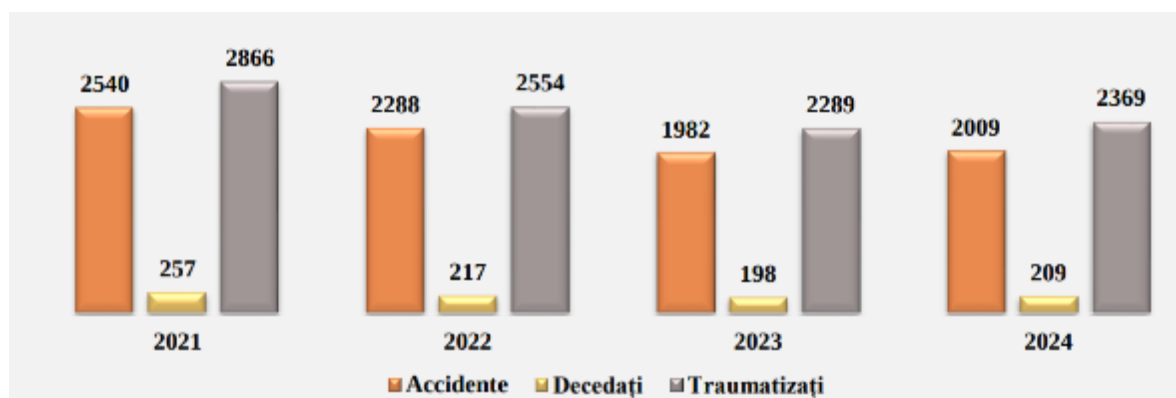


Figure 6-41: General Inspectorate of Police. orange – accidents, yellow – deaths, grey-injuries

The national routes with an increased risk of road accidents were found to be:

- M5 – Border with Ukraine – Criva – Bălți – Chișinău – Tiraspol – border with Ukraine (E584): 30 accidents resulting in 15 deaths and 37 injuries;
- R6 Chișinău – Orhei – Bălți: 74 accidents resulting in 16 deaths and 130 injuries;

³⁸ <https://point.md/ro/novosti/obschestvo/moldova-vkhodit-v-top-stran-s-samyimi-opasnymi-dorogami-v-evrope/>

- R14 R6 – Codrul Nou – Soroca – Unguri – border with Ukraine: 34 accidents resulting in 5 deaths and 41 injuries;
- M3 – Chişinău – Comrat – Giurgiulesti – border with Romania: 33 accidents resulting in 9 deaths and 40 injuries;
- R3 – Chisinau – Hincesti – Cimişlia – Basarabeasca – border with Ukraine: 27 accidents, resulting in 4 deaths and 38 injuries.

The main causes of road accidents remain speeding inappropriate to visibility and road conditions, accounting for 27.78% or 558 of the total number of accidents, which led to the deaths of 102 people and the injuries of another 656.

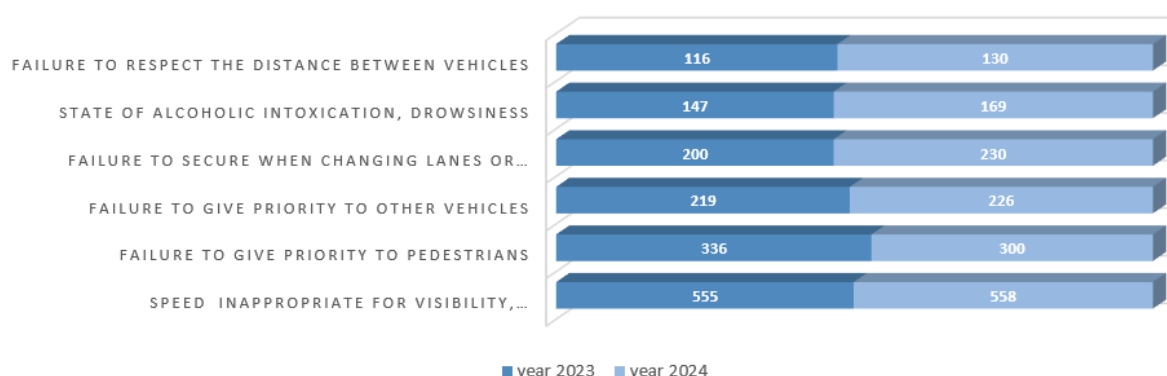


Figure 6-42: Main causes of road accidents

The digital map details traffic accidents, their types and causes, as well as other related data, such as road condition, geometry, road surface, flatness index and others. Thus, drivers can use the search engine on the website to choose the safest roads when driving through the country³⁹. From January 2023, INSP (National Inspectorate for Public Security) collected and reported road accidents daily. The information on the map will be continuously updated and offered for use by all interested parties.

National Road Administration includes roads accidents into an interactive map: www.andsa.md with all details regarding on-line activities on national roads.

The requested additional information from National Inspectorate Cimişlia District, Cahul District and Ialoveni District to obtain road accidents data particularly on roads related to Project Area and black points. The data presented by Cimişlia District (official letter 34/30 – 7043 from 22.09.2025) and Ialoveni District (official letter 34/40/ 11179) in the table for period 2021-2025:

| Km of the road | Type of accident | Cause of the road accident | accidents | deaths | Total trauma |
|----------------|---|---|-----------|--------|--------------|
| 18,8 | 2.4 Collision with obstacle as a result of skidding | Speed inappropriate to visibility, road conditions, situation | 1 | 0 | 1 |

³⁹ <https://www.undp.org/moldova/press-releases/moldovan-drivers-can-choose-safer-roads-thanks-digital-map-road-accidents>

| Km of the road | Type of accident | Cause of the road accident | accidents | deaths | Total trauma |
|----------------|--|---|-----------|--------|--------------|
| 20,2 | 3.1 Collision "front to rear", including with stopped vehicles due to traffic conditions | Failure to secure when changing lane or direction, incorrect turn | 1 | 0 | 1 |
| 20,7 | 3.5 Side impact | Failure to secure when changing lane or direction, incorrect turn | 1 | 0 | 1 |
| 24,7 | 3.5 Side impact | Failure to secure when changing lane or direction, incorrect turn | 1 | 0 | 1 |
| 24,97 | 3.4 Frontal collision (traveling from opposite directions) | Speed inappropriate to visibility, road conditions, situation | 1 | 0 | 1 |
| 25,6 | 3.6 Tangential collision (due to failure to maintain lateral distance) | Speed inappropriate to visibility, road conditions, situation | 1 | 1 | 4 |
| 26,773 | 1.4 Stopping pedestrians engaged in illegal crossing or parking on the carriageway | Irregular crossing of the road by pedestrians | 1 | 1 | 0 |
| 27,35 | 1.2 Hitting pedestrians driving on the right side of the road | Speed inappropriate to visibility, road conditions, situation | 1 | 1 | 0 |
| 27,37 | 1.4 Stopping pedestrians engaged in illegal crossing or parking on the carriageway | Irregular crossing of the road by pedestrians | 1 | 0 | 1 |
| 27,8 | 2.3 Buffers with an obstacle outside the roadway | Speed inappropriate to visibility, road conditions, situation | 1 | 0 | 3 |
| 28,46 | 3.5 Side impact | Failure to secure when changing lane or direction, incorrect turn | 1 | 1 | 0 |
| 32,37 | 3.1 Collision "front to rear", including with stopped vehicles due to traffic conditions | Failure to secure when changing lane or direction, incorrect turn | 1 | 0 | 1 |
| 33,8 | 1.1 Bump into pedestrians on the left side of the roa | Speed inappropriate to visibility, road conditions, situation | 1 | 1 | 0 |
| 34,431 | 2.2 Bump into obstacles on the roadway | Speed inappropriate to visibility, road conditions, situation | 1 | 0 | 1 |
| 37,125 | 2.3 Buffers with an obstacle outside the roadway | Speed inappropriate to visibility, road conditions, situation | 1 | 0 | 1 |

| Km of the road | Type of accident | Cause of the road accident | accidents | deaths | Total trauma |
|----------------|--|---|-----------|--------|--------------|
| 38,37 | 3.1 Collision "front to rear", including with stopped vehicles due to traffic conditions | Speed inappropriate to visibility, road conditions, situation | 1 | 1 | 1 |
| 41,7 | 2.4 Collision with obstacle as a result of skidding | Speed inappropriate to visibility, road conditions, situation | 1 | 0 | 1 |
| Total | | | 17 | 6 | 18 |

Table6-44: Ialoveni Police Inspectorate report 2021-2025, M3 road

| Km of the road | Type of accident | Cause of the road accident | Accidents | Deaths | Total trauma |
|----------------|--|---|-----------|--------|--------------|
| 47,9 | 2.4 Collision with obstacle as a result of skidding | Speed inappropriate to visibility, road conditions, situation | 1 | 1 | 1 |
| 49,6 | 2.4 Collision with obstacle because of skidding | Speed inappropriate to visibility, road conditions, situation | 1 | 0 | 1 |
| 49,8 | 3.4 Frontal collision (traveling from opposite directions) | Speed inappropriate to visibility, road conditions, situation | 1 | 0 | 1 |
| 49,9 | 3.4 Frontal collision (traveling from opposite directions) | Speed inappropriate to visibility, road conditions, situation | 1 | 1 | 3 |
| 51,56 | 3.4 Frontal collision (traveling from opposite directions) | Irregular overtaking | 1 | 0 | 1 |
| 58,7 | 3.4 Frontal collision (traveling from opposite directions) | Reckless driving | 1 | 1 | 1 |
| 60,8 | 2.4 Collision with obstacle because of skidding | Speed inappropriate to visibility, road conditions, situation | 1 | 0 | 1 |
| 62 | 2.1 Inversion | Speed inappropriate to visibility, road conditions, situation | 1 | 0 | 1 |
| 62,2 | 3.4 Frontal collision (traveling from opposite directions) | Speed inappropriate to visibility, road conditions, situation | 1 | 1 | 2 |
| 62,3 | 3.1 Collision "front to rear", including with stopped vehicles due to traffic conditions | Failure to maintain the distance between vehicles | 1 | 0 | 2 |
| 62,9 | 3.4 Frontal collision (traveling from opposite directions) | Speed inappropriate to visibility, road conditions, situation | 1 | 0 | 1 |
| 63 | 2.1 Inversion | Speed inappropriate to visibility, road conditions, situation | 1 | 1 | 1 |
| 63,1 | 3.4 Frontal collision (traveling from opposite directions) | Speed inappropriate to visibility, road conditions, situation | 1 | 1 | 1 |

| Km of the road | Type of accident | Cause of the road accident | Accidents | Deaths | Total trauma |
|----------------|--|---|-----------|----------|--------------|
| 68 | 2.3 Buffers with an obstacle outside the roadway | Speed inappropriate to visibility, road conditions, situation | 1 | 0 | 4 |
| 69 | 3.2 Collision with stationary vehicle | Speed inappropriate to visibility, road conditions, situation | 1 | 0 | 1 |
| 70,6 | 3.4 Frontal collision (traveling from opposite directions) | Speed inappropriate to visibility, road conditions, situation | 1 | 0 | 3 |
| 70,7 | 3.4 Frontal collision (traveling from opposite directions) | Speed inappropriate to visibility, road conditions, situation | 1 | 0 | 4 |
| 70,9 | 2.1 Inversion | Speed inappropriate to visibility, road conditions, situation | 1 | 0 | 1 |
| 71,8 | 3.10 Other accidents involving multiple vehicles | Speed inappropriate to visibility, road conditions, situation | 1 | 0 | 3 |
| 72 | 2.4 Collision with obstacle because of skidding | Speed inappropriate to visibility, road conditions, situation | 1 | 0 | 1 |
| 77 | 3.4 Frontal collision (traveling from opposite directions) | Speed inappropriate to visibility, road conditions, situation | 1 | 0 | 1 |
| 80 | 3.4 Frontal collision (traveling from opposite directions) | Irregular overtaking | 3 | 0 | 4 |
| Total | | | 24 | 6 | 39 |

Table6-45: Cimișlia Police Inspectorate report 2021-2025, M3 road

The National Road Safety Program 2025–2030⁴⁰ developed with technical support from FIA Foundation partners EASST and the Automobile Club of Moldova (ACM) establishes concrete actions to increase safety on public roads and protect all traffic participants: drivers, pedestrians, cyclists and passengers. The priority measures are organized in the following directions: strengthening road safety management capacities; improving road infrastructure safety; increasing vehicle safety; educating traffic participants and strengthening law enforcement capacities; increasing post-accident intervention and care capacity. In total, the action plan includes 62 specific targets, including capacity building, safer infrastructure, routine vehicle inspections, 30km/h school zones, and improved data collection.

The implementation of the Program will significantly contribute to increasing road safety, by reducing the number of accidents and promoting a culture of responsibility in traffic.

Moldova has already made significant strides in road safety, achieving a 48% reduction in road traffic during the first UN Decade of Action for Road Safety 2011-2020. The rate of road casualties in the country, however, remains significantly higher than the EU average, and in the past year, death rates have risen more than 5%.

⁴⁰ <https://www.fiafoundation.org/news/moldova-launches-five-year-national-road-safety-programme-supported-by-fia-foundation-partners>

6.8.10. Occupational health and safety, Labour and Working Conditions

The Republic of Moldova has been an ILO member state since 1992. The country has ratified 44 ILO International Labour Standards (Conventions) and 1 Protocol, including all ten fundamental conventions. 42 Conventions are in force. The Violence and Harassment Convention, 2019 (No. 190) was ratified in December 2023. The Occupational Safety and Health (OSH) Convention ratified on 28 April 2000 supplements Title IX of the Labour Code⁴¹ and provides a detailed legal framework for the protection of worker rights. Foreign workers based in the country are protected by the same legislative framework on occupational health and safety.

The Ministry of Labour and Social Protection is the Central Executive Authority on labour safety.

The State Labour Inspectorate⁴² is the administrative authority subordinate to the Ministry of Labour and Social Protection, which, according to the provisions of Law 140/2001, ensures the application of the law in the field of labour relations, safety and health at work and exercises state control of enterprises, institutions and organizations of any type of property and legal form of organization, of individuals who employ employees, as well as of central and local public administration authorities, private agencies and unlicensed intermediaries.

The National Agency on Labour and Employment⁴³ is a structure of the Ministry responsible for implementation of the employment promotion policy; labour migration; unemployment insurance.

According to the **Law No. 186/2008** (amended 2025) regarding safety and health at work art.9 The employer is obliged to ensure the safety and health of workers in all aspects related to the activity carried out. If the employer uses external protection and prevention services, he is not exempted from his responsibilities in the field of safety and health at work.

And in accordance with point 3 of **GD 95/2009** (amended in 2024) (DECISION for the approval of normative acts regarding the implementation of the Occupational Health and Safety Law no. 186-XVI of July 10, 2008), the employer can organize protection and prevention activities in four ways:

- 1) by the assumption by the employer, under the conditions of article 11 paragraph (10) of the Occupational Safety and Health Law of the assigned worker's duties - if he has a certificate that he participated in the OSH course level. 2 (40 hours);
- 2) by designating a worker to carry out protection and prevention activities - if he has a certificate that he has attended the OHS course level. 2 (40 hours);
- 3) by establishing an internal protection and prevention service - if it consists of at least 2 people who hold a certificate that they have participated in the OSH course level 2 (40 hours);
- 4) by calling on external protection and prevention services (outsourcing contract)

Workers employed in non-standard forms of employment (part-time work, fixed-term contracts, flexible working hours, etc.) are fully covered by labour law and enjoy the same rights and guarantees as employees in standard

⁴¹ Labour Code 154/2003, available in Romanian here:

https://www.legis.md/cautare/getResults?doc_id=113032&lang=ro

⁴² <https://ism.gov.md/>

⁴³ <https://www.anofm.md/>

employment relationships⁴⁴.

The most common types of violations reported by the Ministry are related to **working hours, the lack of providing adequate PPE to the workforce, workers not using the PPE correctly** where they are provided with it, **workers not being paid on time, poor management of occupational health and safety risks, workers who are not based in Chisinau (including foreign workers), and being provided with unsafe accommodation facilities.**

Specific requirements according EBRD Policies:

Specific requirements related to Working Relationships

All employees on the project must have valid, signed contracts for the work they are doing. These contracts should be written in a language employees understand, with clear and transparent communication of each party's roles and responsibilities. Employers need to be respectful of the employees right to privacy and data protection. Information regarding working relationships must be understandable, accessible and available in the main spoken language of the workforce. The employer should ensure open communication about any changes in the working conditions and allow employees to comment or submit grievances regarding working conditions.

Specific requirements related to Child and forced labour

The Client needs to ensure compliance with all relevant national laws or international labour standards regarding employment of minors, whichever provide a higher degree of protection for the child. In the case of employment of persons under the age of 18, additional restrictions of working environments will be enforced. The Client also needs to ensure that there are no work or services performed involuntarily or exacted from individuals under threat of force or penalty. Without proper oversight construction sites can potentially become hotbeds for exploitation of migrant workers. This risk escalated during the international migrant crisis, since most of these workers lack proper documentation or understanding of the local laws. Systems must be in place to ensure that none of the workers on site are being exploited.

Specific requirements related to Non-discrimination and equal opportunity

Employment decisions should not be based on personal characteristics such as gender, race, nationality, political opinion, affiliation to a union, ethnic, social or indigenous origin, religion or belief, marital or family status, disability, age, sexual orientation or gender identity, unrelated to inherent job requirements. Employment relationships will be based on the principals of equal opportunity and fair treatment and will not discriminate in any of the aspects of employment (recruitment, promotion, job assignment, compensation, working conditions, terms of employment, access to training, termination of employment or retirement, and discipline). **Note: Efforts to maximise local employment opportunities are not considered discrimination but should be clearly defined and communicated.**

Specific requirements related to Workers Organisations

Workers should be allowed to elect representatives, join workers unions or bargain collectively, without any retribution. Workers' organisations should be allowed to negotiate working conditions with the client, with sufficient information and without retaliation.

⁴⁴ https://gov.md/sites/default/files/media/documents/2025-03/chapter_19_social_policy_and_employment.pdf

Specific requirements related to Wages, benefits, and conditions of work

Wages need to be at least comparable to industry standards in the region (in terms of salary, premium rate compensation for overtime, salary reviews, benefits, etc.) The Client also needs to ensure that the national minimum wage will be respected for all workers on site. The Client also needs to ensure that all workers on site are guaranteed reasonable working conditions and terms of employment (which refers to defined working hours, breaks, ability to take holidays and time off, guaranteed sick leave, and voluntary overtime if possible). All sites, from the main compound to remote smaller locations sites, need to be equipped with adequate on-site facilities. These facilities need to be adequate in terms of size and sanitary conditions and accessibility. Separate toilets and changing rooms need to be set up for female workers, with additional consideration given to the location of the female facilities on site to ensure their safety.

Specific requirements related to Occupational Health and Safety (PR 4)

This includes requirements specific to the workers on site such as: Conducting a proper risk assessment, organising sufficient training of staff on potential risks associated with their work areas, preventive measures and required PPE, Providing PPE, Monitoring of injuries, near misses and lost time.

Specific requirements related to Worker accommodation

Workers' accommodation on site needs to comply with the guidance note issued by IFC and the EBRD "Workers' accommodation: processes and standards" from 2009. This guidance note provides information on size, accessibility, sanitary requirements, social areas, and many other aspects of workers' accommodation on site. **General requirements are that:** The accommodation shall be appropriate for its location and shall be clean, safe and, at a minimum, meet the basic needs of workers, and the movement of workers shall not be unreasonably restricted.

Specific requirements related to Retrenchment

Collective dismissals or retrenchment typically happens during the restructuring of the Client's organisation. Collective dismissals in connection with the project are defined in Article 1 of EU Directive 98/59. Prior to any retrenchment the client must conduct an analysis of alternatives to retrenchment. A plan to minimise and mitigate the adverse impacts on workers needs to be developed. This plan needs to include defined compensation packages, training opportunities and a communication plan. Clear and transparent communication about the process, including a grievance mechanism needs to be established before any actions take place. Termination of contracts at the end of the construction phase is not considered retrenchment – these contracts had always been time restricted.

Specific requirements related to the Grievance Mechanism for the workforce

This Grievance mechanism should be viewed separately and should operate independently from the External Grievance Mechanism which is also established for the Project to address complaints from third parties. The Grievance mechanism for the workforce should focus specifically on addressing grievances from people working on site. The purpose of this grievance mechanism is to address issues the workers might have with regards to labour and working conditions, personal or community safety, training and equipment required to complete their activities and similar. The client will provide an effective grievance mechanism for workers (and their organisations, where they exist) to raise workplace concerns. The client will inform the workers of the grievance mechanism at the time of hiring and make it easily accessible to them. The grievance mechanism

should allow multiple avenues for a grievance to be raised, especially since the grievance could likely be against direct line managers. The mechanism should involve an appropriate level of management and address concerns promptly, using an understandable and transparent process that provides timely feedback to those concerned, without any retribution. The mechanism should also allow for confidential complaints to be raised and addressed. The mechanism should not impede access to other judicial or administrative remedies that might be available under law or through existing arbitration or mediation procedures, nor should it substitute for grievance mechanisms provided through workers unions or collective agreements.

Specific requirements related to Security personnel

When security is required to safeguard the client's personnel and property, the Client will agree a standard of practice and behaviour for the security personnel, guided by the principle of proportionality and Good International Practice in terms of hiring, rules of conduct, training, equipping and monitoring of such personnel. During the procurement process the Client will ensure those considered are not implicated in any past abuses; don't have a history of violence and are trained adequately in the use of force and appropriate conduct towards workers and the local community (particularly in case of armed guards). A suitable grievance mechanism for workers and the local community needs to be established, in addition to the monitoring programme, to raise any concerns regarding security personnel. The Client also needs to ensure that systems are in place to investigate any allegations of unlawful or abusive acts from security personnel and ensure response measures.

Specific requirements related to Employment opportunities

The disruption from construction activities on the local community is often balanced out by the opportunity for temporary employment related to the Project. To utilise the local workforce, the Client needs to ensure that incentives or requirements to mobilise the local workforce are built into the contracts with the contractors, consultants and suppliers. This approach will also mitigate the influx of additional workforce (workers, contractors, service providers and other jobseekers), as well as the related strain on the local infrastructure, services and economy. All parties in the process are asked to assess the local market for labour and services and rely on local labour, as much as possible.

Specific requirements related to non-employees' workers

All PR requirements already mentioned (PR2, PR4) should apply to the non-employees workers apart from retrenchment. Non-employee workers could however be exposed to different risks and these need to be identified and mitigated. The Client needs to establish policies and procedures for managing and monitoring the performance of non-employees in relation to the project and requirements of the PR. In addition, they need to assess and use reasonable efforts to incorporate these requirements in contractual agreements with such contractors and, where relevant, develop and implement a **Contractor Management Plan**. Non-employee workers need to have access to an effective grievance mechanism. As the employer, it is the Client's role to ensure that all contractors perform their activities in line with the requirements of the loan agreement. During the Preliminary Assessment of contractors, in addition to Professional expertise and Commercial Performance, the Client should look for added value items. Preference can be given to suppliers operating a quality management system as this guarantees they would have defined roles and responsibilities, have conducted their own assessment of impacts, have policies and procedures in place and that they have regular staff training, evaluation and improvement of performance.

Gap analyse of PR4/ESR4 with national legislation is presented below with adequate mitigation measures required.

| PR4/ESR 4 Requirement | National Legislation | Gap Identified | Mitigation |
|--|--|--|--|
| OHS Management System & Hierarchy of Controls | Law 186/2008: risk assessments, OSH organisation, designated OSH staff, prevention/protection measures. GD 95/2009: procedures for organising OHS activities, instructions, internal regulations. CP D.02.18: task-level controls for road works, machinery, traffic protection. | No requirement for an integrated project ESMS/ESMP covering OHS + community HS (PR1+PR4). No explicit requirement for alignment with EU OSH directives or ISO 45001. | Prepare a Project OHS Management Plan (OHSP) aligned with PR1 & PR4, referencing EU OSH directives and ISO 45001. Include hierarchy of controls, KPIs, monitoring, and management review mechanisms. |
| Worker Information, Training, Medical Surveillance & PPE | Law 186: worker information (Art. 14), training (Art. 17), medical surveillance (Art. 21), PPE provision. CP D.02.18: PPE, safe machinery operation, temporary traffic control | Legal minimums only; lacks proactive safety culture (behaviour-based safety, stop-work authority, reporting culture). | Introduce behaviour-based safety, mandatory stop-work authority. Establish near-miss/unsafe act reporting system (anonymous). Integrate reporting into toolbox talks and monthly statistics. |
| Incident Reporting, Investigation & Learning | National law: mandatory reporting of accidents/diseases; cooperation with Labour Inspectorate; compensation payments. | No requirement for root-cause analysis, trend analysis, or continuous improvement. No requirement for EBRD notification of serious/fatal incidents. | Establish incident management procedure (classification, RCA tools, CAPA tracking). Commit to timely reporting of serious incidents to EBRD. |
| Contractor & Third-Party Worker Management | Law 186 applies individually to each employer. CP D.02.18 applies to all organisations involved in road works. | No requirement for an integrated OHS management system across all contractors. No requirement to impose PR4-level OHS obligations in contracts or conduct contractor audits. | Develop Contractor OHS Management Procedure: pre-qualification, OHS KPIs, mandatory JHAs (Job Hazards analysis)/method statements, regular audits, contractual PR4/ESR4 compliance. |
| Community Health & Safety (including Traffic Safety) | Law 186: worker-focused, no community HS obligations. CP D.02.18: road signalling, temporary traffic organisation (indirectly protects public). | No obligation to assess/manage community HS risks (traffic safety, pedestrian risk, dust exposure, vulnerable groups). No required community communication on safety risks (detours, closures). | Prepare Community Health, Safety and Security Plan. Develop Traffic & Road Safety Management Plan for construction. Implement community notification procedures (mayorality boards, social media, signage). Agree emergency access protocols with local services. |
| GBV/SEA (Gender-Based Violence / Sexual Exploitation & Abuse) | Not addressed in Law 186 or CP D.02.18. Addressed only under general criminal/equality legislation, not as OHS risk. | Major gap: national system does not treat GBV/SEA as a project-related HS risk. | Develop GBV/SEA Action Plan (PR4/PR2). Worker Code of Conduct with explicit GBV/SEA clauses. Mandatory induction + refresher training. Confidential grievance pathways; zero-tolerance enforcement in contracts. |
| Security Personnel & Use of Force | No OSH-related provisions; security regulated separately (police/security laws). | No requirement for project-level security risk assessment, vetting, training, or human-rights aligned use of force. | If security personnel are used, prepare Security Management Plan aligned with PR4: vetting, proportional force, conflict de-escalation, GBV sensitivity, incident reporting. |
| Supply-Chain Health & Safety | Law 186 applies only to employers within RM territory; | No requirement for HS screening of high-risk | Require suppliers to demonstrate OHS compliance (risk assessments, licenses). |

| PR4/ESR 4 Requirement | National Legislation | Gap Identified | Mitigation |
|---|---|---|--|
| (High-Risk Supply Chains) | no obligation to oversee supplier OHS. | suppliers (quarries, bitumen, asphalt plants). | Include PR4/EU OSH requirements in procurement. Reserve right to audit high-risk suppliers. |
| Monitoring, Worker Participation & Worker Grievance Mechanisms | Law 186 provides for OSH committees, worker consultation. | No requirement for worker-specific HS grievance mechanism linked to project GRM. No requirement for worker participation in ESAP monitoring | Integrate worker HS channels into project GRM (PR10). Establish Joint OHS Committees (client + contractors) reviewing audits, incidents, corrective actions. |

Table 6-46: Gap analyse of PR4/ESR4 with national legislation

All contractors are required to comply with all relevant national regulatory requirements, as well as any related requirements in the construction permits or other approvals obtained in line with the national procedures. The Contractor is generally responsible to generate the H&S system at work sites including development of an H&S Plan and incorporation of H&S training. Contractor(s) are also responsible for ensuring safe working environment, including the provisions of personal protective equipment.

Major requirements for occupational health and safety during construction works are presented in the project design documentation. Alignment with PR4/ESR4 is mandatory in project financed by EBRD.

Labour and working conditions

Information provided by the Government of the Republic of Moldova to the Questionnaire of the European Commission Chapter 19: Social Policy and Employment on May 2022 ⁴⁵ provides a comprehensive screening on compliance of national legislation with EU policy processes in the areas of employment policy, social inclusion and social protection.

| Requirement (PR2, PR4 or PR2/PR4) | National Legislation | Gap / Alignment | Implications / Required Measures |
|---|--|--|---|
| Policies on Equal Opportunity, Harassment, GBV, Modern Slavery & OHS | | | |
| PR2 Requirement Written policies on equal opportunity, anti-harassment, gender-based violence, modern slavery and OHS must be in place for the Project and contractors. | Non-discrimination and equal opportunity are covered by: Constitution (art. 43), Labour Code (art. 5, 8, 10, 47, 199), Law No. 5/2006 on equality between women and men, Law No. 121/2012 on equality, Trade Unions Law No. 1129/2000 (mentions sexual discrimination and harassment), plus general OHS framework. | Partial alignment. National law covers non-discrimination and sexual harassment, but: (i) no explicit requirement for employers to adopt comprehensive written policies on GBV/SEA, anti-harassment, and modern slavery; (ii) no explicit requirement to extend these policies to contractors and supply chains. | Client/Contractor must adopt a Project-specific HR Policy including: non-discrimination, equal opportunity, anti-harassment, GBV/SEA, prohibition of forced labour/modern slavery, and link it to OHS Policy. Require all contractors to adopt equivalent policies (ESAP action). |
| Working Relationships & Written Contracts | | | |
| PR2 Requirement All workers engaged on the Project have clear, written employment conditions in a language they understand, including rights, wages, working hours, rest, benefits, etc. | Labour Code art. 58 requires written individual employment contracts; art. 49 lists minimum contents; art. 51 allows additional clauses (mobility, confidentiality, housing, transport, etc.). Forms: permanent (art. 54), fixed-term (art. 55), part-time (art. 97), flexible hours | Substantive alignment for employees, but gaps: (i) Law No. 22/2018 on day labourers and civil-law service contracts are outside labour law; (ii) PR2 expects clarity of terms for all Project workers, including non-standard and non- | Ensure all Project workers, including day labourers and those under service contracts, receive written information on terms and conditions in a language they understand. Contractually require contractors to do the same (Contractor Management Plan / HR procedures). |

⁴⁵ https://gov.md/sites/default/files/media/documents/2025-03/chapter_19_social_policy_and_employment.pdf

| Requirement (PR2, PR4 or PR2/PR4) | National Legislation | Gap / Alignment | Implications / Required Measures |
|--|--|--|--|
| | (art. 100 ¹). | employee workers. | |
| Supply Chain & Non-Employee Workers | | | |
| PR2 Requirement Requirements on non-employee workers and supply chain: manage and monitor contractor performance, integrate PR2/PR4 requirements in contracts, provide access to grievance mechanism, and address risks of exploitation/modern slavery. | No specific provisions on supply chain labour standards or mandatory contractor social risk management. Non-employee workers are mainly governed by civil law. | Major gap. PR2 has strong expectations for contractor and supply chain management, while Moldovan law does not impose equivalent requirements on the Client | Develop and implement a Contractor Management Plan: (i) include PR2/PR4 requirements in contracts (no child/forced labour, OHS, working hours, GM, data protection, non-discrimination); (ii) pre-qualification criteria and audits; (iii) monitoring of contractors and key suppliers; (iv) ensure contractor workers have access to the Worker GM. |
| Working Time, Rest and Overtime | | | |
| PR2 Requirement Working hours and rest must be consistent with ILO core standards; overtime should be voluntary and paid at premium rates; clear rules on breaks, holidays, sick leave. | Title IV Labour Code + National Collective Agreement No. 2/2004 regulate working and rest time, including preparation time and certain idle time; art. 104 regulates overtime, which must be exceptional and, in practice, voluntary. | Broad alignment in law, but PR2 expects evidence of implementation and monitoring, particularly in high-risk sectors such as construction (systematic overtime, pressure on workers). | Client/Contractor to: (i) adopt and communicate a Working Time Procedure consistent with national law and PR2; (ii) keep records of working hours and overtime; (iii) verify voluntariness of overtime; (iv) include these obligations in contractor contracts and OHS supervision. |
| Protection of Personal Data & Privacy | | | |
| PR2 Requirement Respect for worker privacy and data protection. Personnel data must be processed lawfully, securely and confidentially. | Labour Code (art. 51, 91) and Law No. 133/2011 on personal data protection – personal data can be processed only for legitimate purposes and in line with law; confidentiality obligations exist. | Good alignment in legal framework, but PR2 requires this to be embedded in HR and GM processes. | Prepare a Data Protection Protocol for HR: limit access to personnel files; regulate data use in grievances and disciplinary investigations; train HR and site management. |
| Child Labour & Young Workers | | | |
| PR2 Requirement Prohibit child labour and ensure compliance with national law or international standards, whichever is higher. Young workers (<18) must not be employed in hazardous work. | Covered by Constitution, Labour Code, Family & Civil Codes, Education laws, Contravention Code. Minimum age 15 with parental consent and conditions (Labour Code art. 46(3)). Chapter III (art. 253–257) of Labour Code + art. 255 explicitly prohibit under-18 in heavy, harmful and dangerous work, including construction activities that may harm health or moral integrity. | Strong alignment in law, but PR2 requires systematic verification and monitoring on construction sites, especially for contractors and migrant labour. | Client/Contractor must: (i) introduce age-verification procedures (ID check, record keeping); (ii) explicitly prohibit employment of <18 in any construction or hazardous work in contracts; (iii) supervise implementation by contractors. |
| Forced Labour / Modern Slavery | | | |
| PR2 Requirement Prohibit all forms of forced, compulsory, or trafficked labour; no work performed under threat of penalty or coercion; address risks in migrant labour and supply chains. | Constitution art. 44 and Labour Code art. 7 prohibit forced labour. There are general criminal/administrative provisions against trafficking and exploitation, but no specific project-level obligations regarding recruitment practices or passport/fee retention. | Partial alignment. Prohibition exists, but there is no requirement to: (i) control recruitment agencies; (ii) prevent retention of identity documents; (iii) prevent recruitment fees; (iv) monitor contractor practices. | Adopt a Modern Slavery / Forced Labour Procedure: (i) zero tolerance for forced labour; (ii) no retention of passports; (iii) prohibition of recruitment fees; (iv) due diligence on recruitment agencies; (v) monitoring of contractors and migrant workers. |
| Freedom of Association & Collective Bargaining | | | |

| Requirement (PR2, PR4 or PR2/PR4) | National Legislation | Gap / Alignment | Implications / Required Measures |
|--|---|---|---|
| PR2 Requirement Workers are free to form or join organisations, elect representatives and bargain collectively, without retaliation. | Labour Code art. 5 and 8 guarantee freedom of association and prohibit discrimination based on trade union membership; Trade Unions Law No. 1129/2000. | Legal alignment , but PR2 emphasises practical respect and non-interference, especially with contractors. | Client and contractors must formally commit (in HR Policy, Code of Conduct) to: (i) respect workers' rights to join unions; (ii) not interfere with union activities; (iii) allow worker representatives to engage in OHS and labour dialogue. |
| Retrenchment / Collective Dismissals | | | |
| PR2 Requirement Before collective dismissals, analyse alternatives, develop a retrenchment plan with mitigation measures (compensation, training), and consult workers; establish a GM; note that end-of-contract at end of construction is not retrenchment. | Labour Code art. 86 and 185 ¹ : when collective redundancies are envisaged, employer must notify Employment Agency at least 3 months in advance; agency supports re-employment and retraining, together with employer and employee representatives. | Partial alignment. Law regulates notification and some mitigation via public employment services, but PR2 requires: (i) a formal retrenchment plan ; (ii) documented analysis of alternatives; (iii) structured consultation and communication strategy; (iv) integration with Worker GM. | If any collective redundancies are linked to the Project (e.g. O&M restructuring), Client shall prepare a Retrenchment Plan consistent with PR2: alternatives analysis, mitigation measures, extended support, and use of Worker GM. For construction, clarify in contracts that time-bound contracts ending with works are not "retrenchment," but still ensure fair treatment. |
| Grievance Mechanism for Workers | | | |
| PR2 Requirement Client must provide an effective grievance mechanism for workers (separate from external GM), with multiple channels, confidentiality, non-retaliation, and clear timeframes. | Labour inspectorate Law No. 140/2001 – safeguards confidentiality of complaint sources, but Law No. 131/2012 on state control limits unannounced inspections based on anonymous sources (identity disclosure needed); workers can use courts, unions, and inspectorate; however, there is no legal requirement to establish an internal project-level worker GM. | Significant gap. PR2 explicitly requires a project-level Worker GM ; national legislation relies on external institutions and union mechanisms. | Establish a Worker Grievance Mechanism : (i) written procedure and flowchart; (ii) multiple channels (box, hotline, email, worker reps); (iii) confidentiality and non-retaliation; (iv) clear timelines; (v) tracking and feedback; (vi) access for contractor workers and non-employees. Communicate GM at induction and display on site. |
| Occupational Health & Safety (PR4 link) | | | |
| PR2/PR4 Requirement Systematic OHS risk assessment, training, PPE provision, incident / near-miss reporting, and continuous improvement for all workers (including contractors). | Law No. 186-XVI/2008 on OHS, GD No. 95/2009 on OHS organisation, sanitary regulations (e.g. HG 1025/2016), plus CP D.02.18:2017 for road construction works. | Largely aligned in legal framework , but PR2/PR4 require: (i) structured OHS Management System; (ii) recording of near misses; (iii) active worker participation; (iv) strict supervision of contractors. These are not always fully prescribed or implemented. | Implement a Project OHS Management Plan aligned with PR4 and CP D.02.18:2017, covering all contractors: risk assessments, method statements/JHAs, training, PPE, incident and near-miss reporting, OHS committees with worker participation, and regular audits. |
| Worker Accommodation | | | |
| PR2 Requirement Worker accommodation must follow IFC/EBRD "Workers' accommodation: processes and standards" (2009): adequate space, sanitation, safety, privacy, and freedom of movement. | Moldovan law sets general sanitary and housing norms, but no specific, detailed standards for temporary worker camps comparable to IFC/EBRD guidance. | Gap. There is no detailed national standard for temporary worker camps equivalent to IFC/EBRD guidance. | If worker camps are used, adopt a Worker Accommodation Plan based on IFC/EBRD 2009 note, covering room densities, WASH, safety, gender-sensitive facilities, and access to GM. Include requirements in contracts with contractors. |
| Security Personnel | | | |

| Requirement (PR2, PR4 or PR2/PR4) | National Legislation | Gap / Alignment | Implications / Required Measures |
|---|--|---|---|
| PR2/PR4 Requirement Security personnel must operate under rules consistent with Good International Practice, proportional use of force, respect for human rights; screened for past abuses; trained; subject to GM and incident investigation. | National legislation regulates private security services and use of force but does not explicitly require screening for past human rights abuses or alignment with international standards such as Voluntary Principles. | Gap. PR2/PR4 expectations go beyond national law: screening, training, behaviour code, and GM for complaints against security. | Develop a Security Management Procedure for the Project: vetting (no past abuses), Code of Conduct, human-rights training, proportionality rules, integration with Project GM, and incident investigation procedure. Include these requirements in security contracts. |
| Employment Opportunities & Local Hiring | | | |
| PR2 Requirement Promote local employment opportunities and ensure that local hiring targets or incentives are defined and communicated; avoid discrimination. | No specific legal obligation to prioritise local labour, beyond general non-discrimination rules. | No legal requirement; PR2 considers this a good practice rather than a strict obligation. | Include in tender documents and contracts local hiring clauses (to the extent feasible), transparently communicate opportunities in local communities, and monitor local employment indicators. |
| Non-Employee Workers (Contractors, Subcontractors, Suppliers) | | | |
| PR2 Requirement Apply PR2 and PR4 requirements to non-employee workers, except retrenchment; identify their specific risks; establish management and monitoring procedures; ensure access to grievance mechanism. | Non-employee workers are generally regulated by civil law and commercial contracts; labour law and PR2-type protections are not systematically extended to them by law. | Major gap. There is no legal obligation to treat non-employee workers in line with PR2/PR4. | Client must: (i) integrate PR2/PR4 requirements into all contracts (contractor, sub-contractor, key suppliers); (ii) implement a Contractor Management Plan ; (iii) ensure non-employee workers have access to the Worker GM ; (iv) monitor and audit contractor performance. |

Table6-47: Comparison PR2 and national legislation

Moldova hosts an increasing number of refugees, asylum seekers, and foreign migrant workers—primarily from Ukraine, countries of the CIS, and, in construction, from South-East Asia (Vietnam, Nepal, India, Bangladesh). For a large-scale, labour-intensive project such as the M3 road rehabilitation (Lots 1–4), the presence of migrant labour—whether directly employed by contractors or through sub-contractors—creates heightened PR2 and PR4 risks that require a specific management approach.

These risks and gaps are not fully addressed under Moldovan legislation, which does not contain explicit requirements on recruitment practices, recruitment intermediaries, passport retention, language accessibility, or modern-slavery safeguards. PR2 requirements therefore exceed the national framework.

Overall, the Moldovan legal framework provides a solid basis for labour and working conditions, particularly in the areas of non-discrimination, prohibition of child and forced labour, freedom of association, written contracts for employees, and occupational health and safety. However, EBRD PR2 establishes broader and more operationally focused requirements, especially concerning non-employee workers, supply chain management, modern slavery risk, project-level worker grievance mechanisms, worker accommodation and security arrangements.

The main gaps relate to (i) the absence of a mandatory project-level worker grievance mechanism; (ii) limited regulation of labour practices in supply chains and for non-employee workers; (iii) lack of explicit requirements for written GBV/SEA, anti-harassment and modern slavery policies; (iv) absence of detailed standards for temporary worker accommodation; and (v) limited obligations on the management and oversight of security personnel. These gaps will be addressed at project level through adoption of a PR2-compliant HR Policy and

Code of Conduct, establishment of a Worker Grievance Mechanism, development of a Contractor Management Plan (including labour and OHS clauses), and preparation of specific management plans for worker accommodation and security personnel.

Emergency Responses (Information to be included by Executive Contractor in Emergency Response Plan)

External emergency response capacity in the M3 project area (Chişinău Airport – Giurgiuleşti, Lots 1–4) is provided through the national **112 unified emergency system**, which integrates fire and rescue (IGSU), ambulance/SMURD, police/patrol units, and civil protection structures. Overall capacity is adequate at district level, but uneven across rural localities, with slower response times and limited specialised equipment outside urban centres. Emergency services follow Moldova's national civil protection system under the General Inspectorate for Emergency Situations (IGSU).

The location and capacity of external emergency response providers who may be requested to provide support during an emergency response (construction or operation) - fire and rescue (IGSU) are as follows:

Fire stations in the Project vicinity:

| M3 Lot 1-4 | Fire stations in Project Vicinity | Project Localities |
|------------|--|---|
| 1-4 | National Emergency: Use 112 for situations that require an immediate response from the police, medical, or fire services | all |
| 1 | Botanica Rescue and Fire Department, mun. Chişinău, str. Poamei, 21, dsp.botanica@igsu.gov.md , +373 22 523 340, +373 79 604 108 | Bacloi commune |
| 1 | Ialoveni Emergency Situations Section, or. Ialoveni, str. Gr. Vieru, 26, ialoveni@igsu.gov.md , +373 79 706 531 | Horeşti village, Țipala village, Răzeni village |
| 1,2,3 | Cimişlia Emergency Situations Section, or. Cimişlia, str. Aguţilor, 1, cimislia@igsu.gov.md , +373 79 604 169, +373 78 222 942 | Porumbrei commune, Sagaidac village, Gradişte village, Ecaterinovca comuune, Coşngalia village, Ciucur-Mingir village |
| 4 | Cahul Municipality Emergency Situations Directorate, mun. Cahul, str. Dunării, 9, cahul@igsu.gov.md , +373 29 941 355, +373 79 604 134 | Giurgiuleşti village, Cîşliţa Prut village |
| 4 | Giurgiuleşti Rescue and Fire Unit, Giurgiuleşti village, usp.giurgiulesti@igsu.gov.md , +373 29 932 122, +373 79 183 800 | Giurgiuleşti village, Cîşliţa Prut village |

Table6-48: Overview of fire fighters locations

| M3 Lot | Public Security Providers contacts: | Responsible for Communities |
|--------|---|--|
| 1-4 | National Emergency: Use 112 for situations that require an immediate response from the police, medical, or fire services | all |
| 1 | Police Inspectorate Botanica, Police Sector nr. 7 Tel: +373 22 383 299 | Bacloi commune |
| 1 | Police Inspectorate Ialoveni, str. Grigore Vieru, nr.24, or. Ialoveni, MD-6801, 0 (268) 2-22-02, mob: +373 68244443, ip_ialoveni@igp.gov.md , | Ialoveni District |
| 1 | Police Sector nr. 1 (Ialoveni) (+373) 60102004 str. Alexandru cel Bun, nr.45, or. Ialoveni | Horesti village, Țipala village |
| 1 | Police Sector nr. 4 (Rezeni) (+373) 69437331 str. Ștefan cel Mare și Sfînt, nr.65, s. Rezeni, r. Ialoveni | Răzeni village |
| 1,2 | Police Inspectorate Cimişlia bd. Mihai Viteazu 42, or. Cimişlia 0(241) 92229 mob: +373 78824106; +373 67406185 ip_cimislia@igp.gov.md | Cimişlia District |
| 1,2 | Sectorul de Poliție nr. 1 Cimişlia, (+373) 241 22 487 bd. Mihai Viteazul 42, or. Cimişlia | Porumbrei commune, Sagaidac village, Gradişte, village, Ecaterinovca village, Coştangalia village, |
| 2 | Police Sector nr. 3 Valea Perjei, (+373) 241 93 118 str. Hînceşti 96, Ecaterinovca village, r. Cimişlia | Ecaterinovca village |

| M3 Lot | Public Security Providers contacts: | Responsible for Communities |
|--------|---|------------------------------------|
| 3 | Police Officer Ciucur Mingir +373 241-30502 | Ciucur-Mingir village |
| 4 | Police Inspectorate Cahul, str. 31 august 28-30, mun. Cahul, MD-3900 +373 (299) 6-50-44, +373 79984076 ip_cahul@igp.gov.md | Cîșlița Prut village, Giurgiulești |
| 4 | Police Sector nr. 1 (Cahul) str. 31 august 28-30, mun. Cahul, MD-3900 +37369025026 | Cîșlița Prut village, Giurgiulești |
| 4 | Police Sector nr. 5 (Colibași) +373 79235678 mayoralty Colibași village Cahul District | Cîșlița Prut village, Giurgiulești |

Table6-49: Public security providers along the Project Area

6.8.11. Gender and the role of women in society

The legislative framework for equality between women and men is in line with international commitments. However, implementation lags, and women still face discrimination and inequality in social, economic, and political life.

In February 2006, the Parliament of the Republic of Moldova adopted the Law on Ensuring Equal Opportunities between Women and Men (Law No. 5 of 09.02.2006). The purpose of this law is to ensure the exercise of equal rights by both women and men in the political, economic, social, cultural, other spheres of life, rights guaranteed by the Constitution of the Republic of Moldova, to prevent and eliminate all forms of discrimination based on sex (art.1). Until the adoption of the Law on Equal Opportunities between Women and Men in 2006, the legislative framework of gender equality was provided by the Constitution of the Republic of Moldova, Art. 16, paragraph 2, which stipulates that: "All citizens of the Republic of Moldova are equal before law and public authorities, regardless of race, nationality, ethnic origin, language, religion, sex, opinion, political affiliation, wealth or social origin".

The adoption of the law represented an essential progress, due to the fact that, for the first time in the legislation of the Republic of Moldova, the concept of discrimination was defined, especially based on sex. In addition to defining specific notions, such as equal opportunities, gender, discrimination based on sex, this law establishes the legal and institutional framework in the field of equality between women and men.

Moldova has ratified the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) in 1994 and its Optional Protocol in 2006.

Women and employment

Labour underutilization by sex (%)

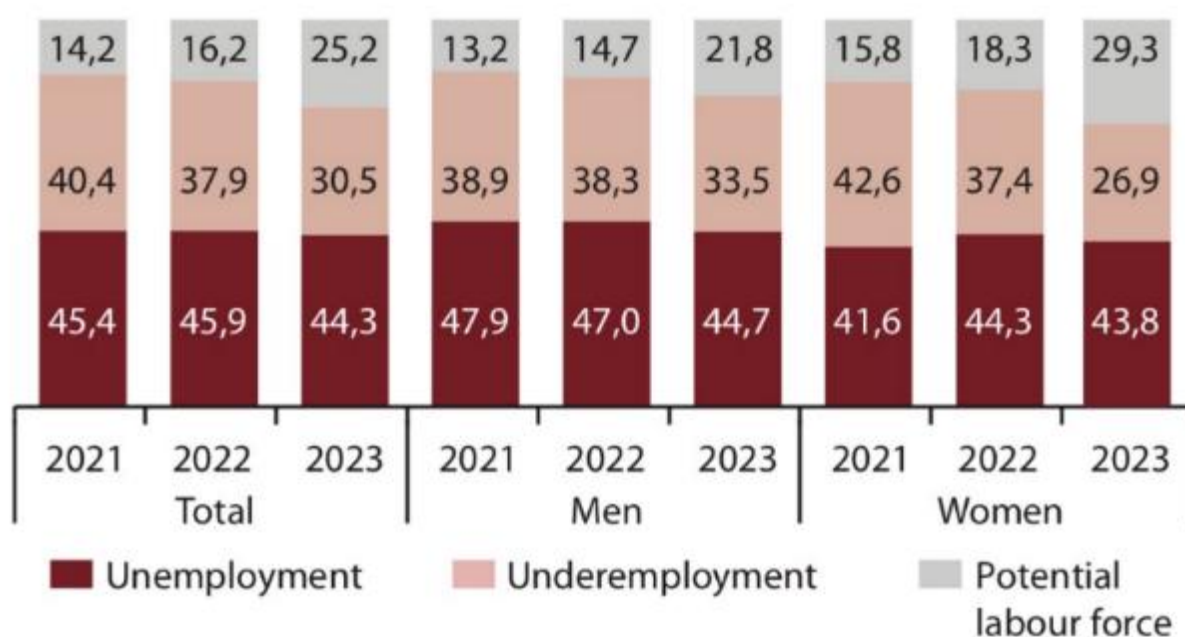


Figure 6-43: Labor underutilization by sex

Women are less active in the Moldovan labour market. The employment rate for men aged 20-64 years was 58,8%, while for women – 53,0%, the gender gap in employment for this age group was 5,8 percentage points. In 2022 men had higher earnings than women in the most of economic activities, the biggest differences were in the activities: information and communications – by 38,1% more; financial and insurance activities – by 32,5%; health and social work – by 22,4%. Women had higher earnings than men only in administrative and support service activities – by 5,7% more; education – by 4,3%; other service activities – by 3,6%.

According to the distribution by economic sectors reveals a higher share of women employed in the service sector (58.4% women and 41.6% men respectively in 2022). Fewer women are found in the agricultural sector (37.2%), construction (7.8%), transport and storage (31.3%), information and communications (36.8%), real estate transactions (35.6%), administrative service activities and support services activities (35.9%), public administration and defence and mandatory social insurance (42.4%), but economic activities such as accommodation and public catering activities (65.1%), financial intermediation and insurance (65.8%), education (81.9%), health and social assistance (82.1%), professional, scientific and technical activities (62.7%), other service activities (59.6%)⁴⁶.

Women and transport

As stated above, women are much less likely to be in full-time formal employment than men; their travel tends to be more varied and connected to household responsibilities. Across the country, women frequently travel with children, and they travel to educational and healthcare facilities, to visit family relatives, and undertake

⁴⁶ https://statistica.gov.md/ro/portretul-statistic-al-femeilor-si-barbatilor-in-republica-moldova-9617_61008.html

administrative tasks at local government offices. In 2022, of all drivers at all levels, 55.4% were men, and 44.6% were women⁴⁷.

Women in political life

Since the adoption of Law No. 5 on Equality of Opportunities for Men and Women in 2006, a series of national strategies and action plans have been designed with aim to promote gender equality. In 2016, a law on temporary special measures introduced a 40% quota for each gender in cabinets and electoral lists, and provisions for paternity leave together with a ban on sexist advertising.

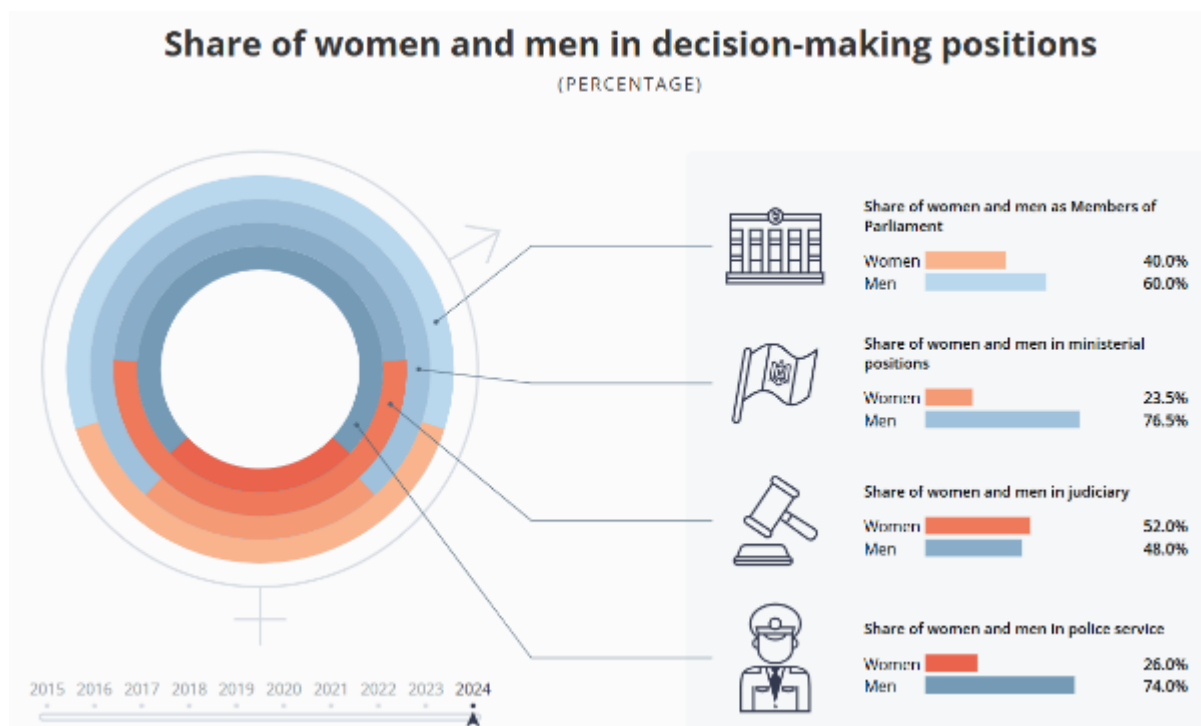


Figure 6-44: Share of women and men in decision-making positions in 2024

Source www.genderpulse.md

However, the implementation of gender equality measures is too slow. Women still face discrimination and inequality in social, economic and political life and their representation in Moldovan politics and decision-making remains below international benchmarks⁴⁸.

6.9. Cultural heritage and archaeological sites

Cultural heritage is distinguished by the following forms:

- Tangible cultural heritage includes movable cultural heritage (e.g. paintings, sculptures, manuscripts, etc.) as well as immovable cultural heritage (e.g. monuments, archaeological sites, cave dwellings, historic buildings, etc.) that are of outstanding universal value from a historical, artistic or scientific point of view or

⁴⁷ https://statistica.gov.md/ro/portretul-statistic-al-femeilor-si-barbatilor-in-republica-moldova-9617_61008.html

⁴⁸ https://www.eeas.europa.eu/sites/default/files/country_gender_profile.pdf

are of outstanding universal value from a historical, aesthetic, ethnological or anthropological point of view⁴⁹.

- Intangible cultural heritage includes living traditions or expressions inherited from ancestors and passed on to descendants, such as oral traditions, performing arts, social practices, rituals and festive events.
- Natural heritage includes natural sites with cultural aspects, such as cultural landscapes, physical, biological or geological formations that have outstanding universal value in terms of aesthetics, science, conservation or natural beauty.

In the Republic of Moldova there are thousands of cultural or natural sites, including architectural monuments, settlements from different historical eras and medieval fortresses. This cultural and natural heritage is relatively evenly distributed throughout the country.

The area of RDA South (South Development Region) has a valuable natural tourist potential, imposed through natural, cultural and archaeological heritage, including sites of cultural, geological, paleontological, and archaeological interest as described in their guide:

- The international festival "White Water Lily" - held in Cahul, promotes artistic groups of amateur dancers and singers, who present the developed, stylized or reconstructed folklore of the country they come from.
- "The Bread Museum" in the village of Văleni, Cahul district, offers visitors the opportunity not only to see and taste bread, but also to learn about the traditions of the place through extensive artistic programs.
- The festival of winter traditions and customs "Goat, Turkey, Breeze" in Cahul district, when the performers go with the Goat procession to people's houses.
- The ethno-folklore festival "Sweet acacia flower" - an event organized in a grove of blooming acacia trees, brings together folk craftsmen, artistic collectives from the region, but also from Romania and Ukraine, promotes the national costume, customs and national traditions.
- The regional festival "Asta-i floarea lui Sulac", held in the Cantemir district - an event organized in memory of the folk music performer Nicolae Sulac, aims to study and promote the authentic musical repertoire, stimulate the creative activity of orchestras and vocal soloists from the area of ancient folklore.
- The grape festival, held in Cimișlia - an event dedicated to promoting the production and consumption of table grapes and takes place annually, on the third Sunday of August.
- The "Flower Parade" exhibition-fair, held in Cimișlia - aims to promote the growth of flowers, shrubs and decorative trees, the production of seed material, contributing to the development of floriculture in the southern regions, but also in the country.

"Lower Prut Lakes" Nature Reserve - located in the southwestern part of the Republic of Moldova, between the city of Cahul and the village of Giurgiulești in the lower part of the Prut River floodplain, which serves as the western border of the area and at the same time represents the state border between the Republic of Moldova and Romania. In this area are located the largest natural lakes in Moldova - Belev and Manta. Belev and Manta lakes represent unique ecosystems for South-Eastern Europe.

The balneological and climatic resort "Nufărul Alb" - the main tourist object of the city of Cahul, built on the basis of a mineral water spring that is distinguished by its high content of bromine and iodine and is used to treat diseases of the nervous system, cardiovascular system, musculoskeletal system and skin diseases.


⁴⁹ UNESCO, <http://whc.unesco.org/en/conventiontext/>

The resort is a modern health recovery center and has a clinic, hotel complex, a catering block and social and artistic objects.


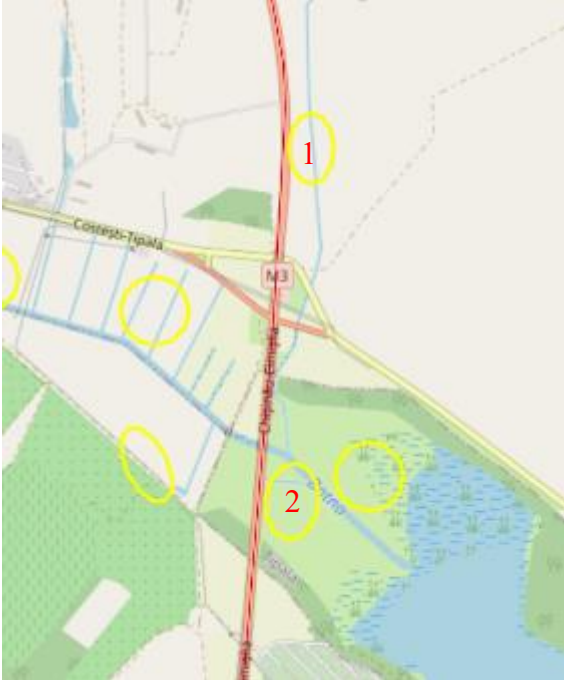
The Bulgarian community in Taraclia district - Taraclia district is the historical centre of the Bulgarian minority in the Republic of Moldova. 75% of the total number of Bulgarians in the Republic of Moldova live here. Taraclia district has become a center for the preservation and promotion of the Bulgarian language, culture and traditions.

The Gagauz Yeri Territorial-Administrative Unit (UTAG), geographically positioned within the SDR, may also be of interest to visitors to the region. The Gagauz ethnic group, a unique cultural-historical entity, the descendants of the Seljuk Turks settled in Dobrogea, live here compactly. The administrative centre of the autonomy is the city of Comrat, which is located 90 km from Chisinau.

Important archaeological sites as well as cultural monuments protected by the state are included in the national registers by the National Archaeology Agency. According to the available information of the National Geospatial Data Fund⁵⁰ around the Project site there are several archaeological sites (see the table below).

| | |
|--|--|
|  <p>Lot 1 Băcioi village</p> | <p>1 - Archaeological site: Băcioi IX</p> <p>RAN code: 5511.9</p> <p>Dating: Mesolithic / 9th-7th mill. BC; Late Roman period / 3rd-4th century AD.</p> <p>2 - Archaeological site: Băcioi VIII</p> <p>RAN code: 5511.8</p> <p>Dating: Late Roman era / 3rd-4th century AD</p> |
|--|--|

⁵⁰ <https://geoportal.md/ro/default/map#lat=44703.771873&lon=200574.109893&zoom=3>

| | |
|--|--|
|  | <p>1 - Archaeological site: Băcioi VI</p> <p>RAN code: 5511.6</p> <p>Late Roman era / 3rd-4th century AD</p> <p>2 - Archaeological site: Băcioi VII</p> <p>RAN code: 5511.7</p> <p>Dating: Late Bronze Age / 15th/14th-13th centuries BC</p> |
|  | <p>1 - Archaeological site: Horești V</p> <p>RAN code: 5518.5</p> <p>Dating: Late Roman period / 3rd-4th century AD; Medieval period / 14th century.</p> <p>2 - Archaeological site: Țipala IV</p> <p>RAN code: 5531.4</p> <p>Dating: Epoca romană târzie / sec. III-IV d. Hr.</p> |

Lot 1 Străisteni village

Lot 1


| | |
|--|--|
|  <p>Lot 1</p> | <p>1 - Archaeological site: Sagaidac IV</p> <p>RAN code: 2936.4</p> <p>Dating: Late Roman period / 3rd-4th centuries AD; Medieval period / 8th-9th centuries AD.</p> |
|  <p>Lot 2</p> | <p>1 - Archaeological site: Valul lui Traian (Trajan's Wall), Sector VI - Gradiște, Ecaterinovca</p> <p>RAN code: 2900.S6</p> <p>Dating: Roman era / 2nd-3rd century AD</p> |
|  <p>Lot 4</p> | <p>1 - Archaeological site: Giurgiulești Tumulul 37</p> <p>RAN code: 9420.45</p> <p>Dating: Eneolithic / 4th century BC - Medieval era / 18th century.</p> |

Table6-50: Historical Archaeological sites in the Project area ,

Source: <https://mc.gov.md/ro/content/patrimoniu-arheologic>

In 2019, prior to the commencement of the construction of the M3 Road (Porumbrei–Cimișlia section), preventive archaeological investigations were carried out at the intersection of the road with the archaeological site *Valul lui Traian de Sus* (Upper Trajan's Wall, RAN code: 2900.S6), on the sector between the villages of Gradiște and Coștangalia, Cimișlia district.

The linear fortification known as the Upper Trajan's Wall (UTW) is one of the most important archaeological monuments on the territory of the Republic of Moldova. Unlike other representative archaeological sites, this impressive earthwork, stretching for about 120 km across the Prut–Dniester interfluvium—from Leova, on the Prut River, to Copanca, on the Dniester River—remains insufficiently researched and understood. One of the earliest cartographic works to provide a more detailed representation of the linear fortifications in Bessarabia, including the UTW, was drawn at the end of the 18th century by the German general Fr. W. Bauer, serving in the Russian Empire. The course and external appearance of the UTW were subsequently established with greater precision through surface surveys conducted in the first half of the 20th century.

The section of the UTW between Gradiște and Coștangalia has long been used as a road linking the two localities. During the Soviet period, it was covered with gravel and asphalt, which severely damaged the earthwork itself. Since the M3 Road project (Porumbrei–Cimișlia) did not envisage direct intervention in the Gradiște–Coștangalia road, as an overpass was planned, our research focused on the northern side of this road, where the ditch adjacent to the rampart was expected to be located. Two rectangular trenches, each measuring 4 × 14 m and spaced 58 m apart, were laid out from the northern edge of the road, perpendicular to it but deviating 7° westward from the N–S axis.

Trench I. The trace of the ditch was identified at a depth of 1.84 m below the current ground surface, at a distance of 8.1 m from the southern edge of the excavation. The upper part of the ditch had been partially affected by modern soil extractions. Its profile is trapezoidal, measuring approximately 3 m wide at the top and 2.36 m at the bottom, with a depth of 2.86 m from the current ground level and 2.1 m from the sterile yellow clay. Several episodes of soil collapse into the ditch could be distinguished in the profile, one of which significantly damaged its southern wall. No artefacts or other archaeological remains were recovered from the ditch fill.

Trench II. The outline of the ditch was observed at a depth of 1.5–1.6 m, at 9.2 m from the southern edge of the excavation. The ditch also has a trapezoidal cross-section, with a width of about 3 m at the top and 2.58 m at the base, and a depth of 2.8–2.9 m from the current ground surface, or about 1.5 m below the yellow clay. The ditch fill consisted of several layers of grey and yellow-brown soil, but no pottery fragments or other archaeological materials were identified.

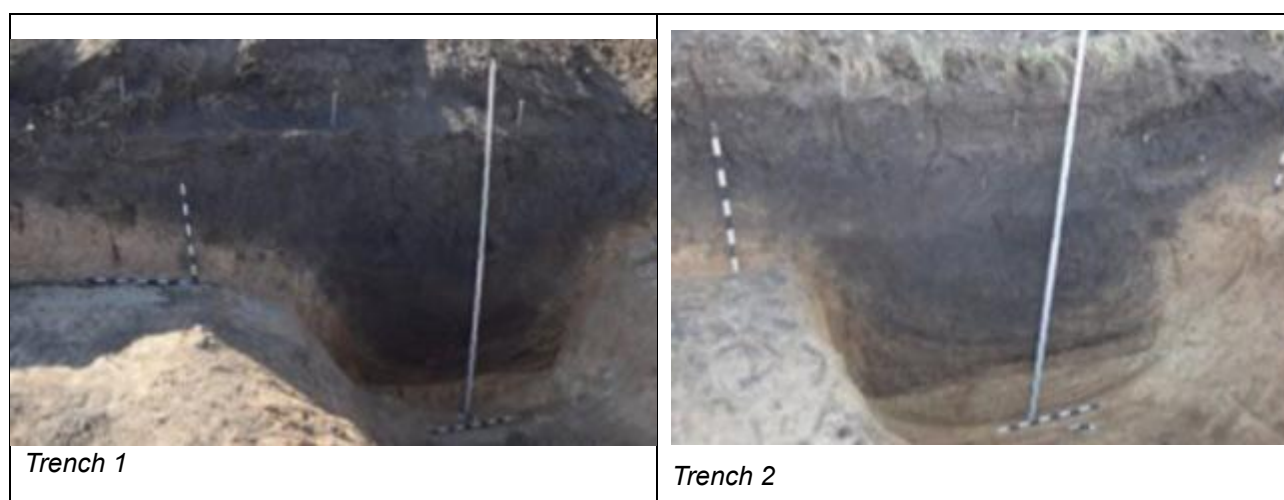


Figure 6-45: Profile of the Valul lui Traian de Sus trench

Although the 2019 investigations were limited in scope, they provided new data regarding the shape, dimensions, and fill of the UTW ditch on the segment between Gradiște and Coștangalia. These findings helped to supplement or even correct earlier information. However, no materials were recovered that would allow for the dating of this important linear fortification, an issue that remains to be addressed in the future.

Based on the interviews conducted in the project localities, the protected monuments are generally located in the central areas of the villages, typically near the town hall or other administrative buildings. The table below presents a list of architectural and historical monuments identified in the communes and villages targeted by the Project.

| Locality | Monument | Chronology | Type | Category ⁵¹ | Distance from the M3 Project |
|--|--|------------|------------|------------------------|------------------------------|
| Băcioi village, Chișinău municipality | Monument in memory of the fellow villagers fallen in 1941–1945, Location | - | Hist. | L | 1,9km |
| Băcioi village, Chișinău municipality | Monument in memory of the victims of Stalinist terror and the famine of 1946–1948, Location | 1992 | Hist. Art | L | 1,4km |
| Băcioi village, Chișinău municipality | Commun grave of the soldiers fallen in 1944, Location | - | Hist. | L | 1,4km |
| Băcioi village, Chișinău municipality | Biserica „Sfinții Arhangheli Mihail și Gavril”, Location | 1866–1867 | Architect. | N | 2,1km |
| Răzeni village, Ialoveni district | Church of “St. Archangels Michael and Gavril”, Location | 1885 | Architect. | N | 0,65km |
| Răzeni village, Ialoveni district | Monument at the common grave of soldiers and in memory of the fellow villagers fallen in the war (1941–1945), Location | - | Hist. | N | 1,36km |

⁵¹ Category: L- local, N - national

| Locality | Monument | Chronology | Type | Category ⁵¹ | Distance from the M3 Project |
|---|--|------------|------------|------------------------|------------------------------|
| Cimișlia town, Cimișlia district | Church of the “ Adormirea Maicii Domnului”, Location | 1865 | Architect. | N | 2,5km |
| Cimișlia town, Cimișlia district | Monument at the mass grave of 701 soldiers and in memory of the fellow villagers fallen in the war (1941–1945), Location | - | Hist. | N | 2,3m |
| Ciucur-Mingir village, Cimișlia district | Church of “St. Archangels Michael and Gavril”, Location | 1890 | Hist. | N | 0,85km |
| Ciucur-Mingir village, Cimișlia district | Monument at the common grave of the soldiers fallen in 1944, Location | - | Hist. | N | 0,35km |
| Giurgiulești village, Cahul district | Monument in memory of the fellow villagers fallen in the war (1941–1945), Location | 1986 | Hist. | L | 0,95km |
| Giurgiulești village, Cahul district | Monument at the common grave of 3 soldiers fallen in the war (1941–1945), Location | 1965 | Hist. | L | 0,95km |

Table6-51: List of architectural and historical monuments in the Project area , Source: [Register](#) of monuments of the Republic of Moldova protected by the state.

A historical cannon monument, originally found beneath the bridge near the customs area and subsequently installed at its current location, is positioned directly adjacent to the M3 road. The local council has already initiated discussions regarding its relocation, with the intention of integrating it into the existing memorial complex, alongside the Monument in memory of the fellow villagers fallen in the war (1941–1945) and the Monument at the common grave of the three soldiers fallen in the war (1941–1945). This monument is of local historical significance and is not included in the List of Monuments Protected by the State of the Republic of Moldova.

All the listed monuments are located within the residential centers of their respective localities. They are situated on public land, generally near local administrative buildings, churches, or other community spaces, serving as accessible cultural and memorial landmarks. According to Article 12 of Law No. 1530/1993, the monument protection zones are defined as follows:

- In urban areas: 100 m radius
- In rural towns: 200 m radius
- In the outskirts: 500 m radius

To maintain the authenticity and integrity of the monuments, their owners are obliged to implement appropriate protection measures and to prevent any demolition, alteration, damage, neglect, or abandonment.

The exact locations of the monuments and their legally established protection zones are situated at a considerable distance from the project alignment and its area of influence. Therefore, there is no spatial overlap or direct interference between the construction works and these cultural and memorial sites.

Consequently, all monuments and churches identified within the Project area will be fully preserved, and their

protection zones will remain unaffected by the road construction, rehabilitation, or operation activities.

The only potential impacts are indirect and minor in nature, such as a temporary increase in traffic volume or noise levels within localities. However, these are not expected to endanger either the physical condition or the symbolic value of the monuments.

6.10. Land tenure and land acquisition

Land acquisition in Moldova is governed by a framework of laws and regulations that ensure public interest projects can proceed while safeguarding the rights of private landowners. These laws align with international standards, including those set forth by the European Convention on Human Rights (ECHR), emphasising the principles of legality, proportionality, and fair compensation. Article 1 of Protocol No. 1 of the ECHR guarantees the right to property and allows for deprivation of property only in the public interest and subject to legal processes. Moldova's commitment to these standards strengthens its legislative framework.

Key statutes include the Constitution of the Republic of Moldova (CRM1/1994 from 29.07.1994), the Civil Code (COD Nr. 1107 from 06-06-2002), the Land Code (CF22/2024 from 15.02.2024).

The Constitution of the Republic of Moldova establishes the foundation for land expropriation. Article 46 explicitly guarantees the right to private property while allowing expropriation under specific conditions:

- **Public Interest:** Land may only be expropriated if it serves a clear and justified public interest.
- **Legal Basis:** Expropriation must comply with the law.
- **Fair Compensation:** Owners are entitled to prior and fair compensation for their property.

The Land Code CF22/2024 from 15.02.2024⁵² defines land as a fundamental resource subject to state regulation, establishes categories of land use, including agricultural, residential, and industrial purposes, and provides procedures for land reclassification and expropriation.

The Civil Code (No. 1107-XV of 2002) provides general rules on property rights and obligations and stipulates conditions under which ownership can be transferred or restricted, including through expropriation.

Specific legislative acts addressing expropriation procedures for public needs are: Law on Expropriation for Public Utility No. 488 of 08.07.1999, related Project the **Law 150/2012**⁵³ regarding the declaration of public utility of national interest for the rehabilitation and expansion works of some national roads, including M3 - Sagaidac, Coștangalia, Gradiște, Ecaterincvca, Cimișlia, Comrat, Vulcănești, Ciumai, Burlăceni, Slobozia Mare, Cîșlița- Prut, Giurgiulești. (Lot 2), **GD 781/2013**⁵⁴ regarding some measures to ensure the rehabilitation and expansion of the national roads M3 Chisinau – Cimișlia – Vulcănești – Giurgiulesti – border with Romania (Lot 2), **Law 18/2025**⁵⁵, on the declaration of public utility of national interest of construction, rehabilitation, modernization and expansion works of national public roads, including state border crossing points with related

⁵² https://www.legis.md/cautare/getResults?doc_id=150480&lang=ro

⁵³ https://www.legis.md/cautare/getResults?doc_id=2319&lang=ro

⁵⁴ https://www.legis.md/cautare/getResults?doc_id=6195&lang=ro

⁵⁵ https://www.legis.md/cautare/getResults?doc_id=147219&lang=ro

infrastructures (Lot 4). **GD 323/2025**⁵⁶ regarding some measures to ensure the expropriation process for works declared of public utility of national interest (Lot 4).

The Law on Expropriation for Public Necessity No. 488-XIV of 1999 (last amended 1 April 2025) is the primary legislation governing the expropriation process, defines "public necessity" and outlines the procedural steps for expropriation, including notification, grievance redress mechanism, and compensation. However, the national framework presents several key gaps when measured against the mandatory financing standard, the EBRD PR 5 on involuntary resettlement.

| Gap | Moldovan legislation | PR5 | Bridging gaps |
|---------------------------------------|---|--|---|
| Potential resettlement impacts | Moldovan legislation does not specify the potential impacts of resettlement. | Involuntary Resettlement: refers both to physical displacement (relocation, loss of land or shelter), and/or economic displacement (loss of land, assets or restrictions on land use, assets and natural resources leading to loss of income sources or other means of livelihood). Resettlement is considered involuntary when affected persons or communities do not have the right to refuse land acquisition or restrictions on land use, other assets and natural resources, even if compulsory acquisition is used only as a last resort after a negotiated process. Project land acquisition may result in orphan land, remaining land being unusable, unviable, or inaccessible for their intended use as a result of partial land acquisition or land acquisition nearby. | If involuntary land acquisition, physical displacement and/or economic displacement will be triggered, the project will develop Resettlement Action Plans (RPs) and/or Livelihood Restoration Plans (LRPs) according to PR5. These documents will be revised and approved by the EBRD. Orphan land is common in linear projects and may apply to e.g. agricultural land plots. The RP is expected to identify and categorize orphan land situations and define eligibility criteria and include relevant entitlements. |
| Key objectives of PR5 | Moldovan regulations do not consider resettlement as a sustainable development program nor do they provide grounds for alternative options. Also, they do not specify benefits and opportunities that may be provided by resettlement to improve the livelihoods of the affected populations. | The key objectives of PR 5 are defined by the overarching mitigation hierarchy: Avoid or minimise involuntary resettlement; Avoid forced eviction: Mitigate unavoidable displacement impacts by: <ul style="list-style-type: none"> providing timely compensation for loss of assets at full replacement cost assisting affected persons in their efforts to improve or at least restore their livelihoods and standards of living improving the affected livelihoods of people living in poverty improving the living conditions of physically displaced vulnerable people by providing adequate housing with security of tenure | Infrastructures' designs will be reviewed and examined to assess if there is room for improvement in terms avoiding involuntary resettlement. If it will be assessed that resettlement is unavoidable, the project will develop RPs and/or LRPs according to PR5. These documents will be revised and approved by the EBRD. |

⁵⁶ https://www.legis.md/cautare/getResults?doc_id=148852&lang=ro

| Gap | Moldovan legislation | PR5 | Bridging gaps |
|--|---|---|--|
| | | <ul style="list-style-type: none"> ensuring that all involuntary resettlement activities are planned and implemented with meaningful consultation, participation and disclosure of information providing affected persons with access to grievance mechanisms in accordance with PR 10: Stakeholder engagement enabling displaced persons to benefit directly from the project. | |
| Involuntary resettlement instruments | Moldovan legislation lack provision on developing resettlement instruments such as Resettlement Framework, Resettlement Plan, Livelihood Restoration Plan. | <p>PR 5 Instruments and applicability:</p> <ul style="list-style-type: none"> Resettlement Plan (RP): Mandatory when ESR 5 is triggered (physical and/or economic displacement), covering all applicable requirements regardless of scale. Resettlement Framework (RF): Acceptable as a first step when the project footprint is not fully defined for compelling reasons, with a commitment to prepare the full RP later Livelihood Restoration Plan (LRP): Mandatory when the project causes economic displacement to assist affected persons in improving or restoring livelihoods. It can be a standalone document or a chapter within the RP. | If involuntary land acquisition, displacement and/or economic displacement will be triggered, the project will develop RPs and/or LRPs according to PR5. These documents will be revised and approved by the EBRD. |
| Different categories of resettlement such as economic or physical | Displacement and land acquisition take place under the Law on Expropriation for Reasons of Public Use No. 488 of 7 August 1999 or the Eminent Domain Law and the Land Code that only apply to physical resettlement. | PR 5 defines involuntary resettlement as encompassing both physical displacement (loss of dwelling) and economic displacement (loss of income or livelihood) resulting from project land acquisition or restrictions on land use. Consequently, requirements of ESR5 in respect of physical displacement and economic displacement may apply simultaneously | The project will apply ESR5 throughout the project cycle, therefore making sure all possible impacts are considered and are addressed accordingly. |
| Displaced people without legal rights | Moldovan laws do not recognize displaced persons without legal rights. The Land Code covers only the rights of the legal landowners, legal users of land (legal tenants), and the businesses that have legal rights to the land and other property. It therefore has a restrictive approach regarding compensation to | PR 5 classifies eligible persons into three categories based on tenure: (i) formal legal rights holders; (ii) holders of recognizable claims; and (iii) informal users who have no recognizable legal right or claim to the land or assets they occupy or use. The census identifies and establishes the status of these affected persons. | RP and LRP developed under the project will provide compensation arrangements for displaced people without legal rights as per ESR5 |

| Gap | Moldovan legislation | PR5 | Bridging gaps |
|---|---|---|---|
| | populations lacking legal title. | | |
| Livelihood restoration | Specific considerations for the livelihood restoration are not present in the Moldovan regulations. | Livelihood restoration is mandatory under ESR 5 to improve or at least restore displaced persons' livelihoods and standards of living relative to pre-displacement levels. | The project will develop the RP/LRP to consider for the livelihood restoration for the affected persons based on ESR5 provisions |
| Full replacement cost | Specific considerations for full replacement costs that are disaggregated by types of affected assets are not present in the Moldovan regulations. | PR 5 objectives mandate mitigating unavoidable displacement impacts by providing timely compensation for loss of assets at full replacement cost and ensuring resettlement is implemented with meaningful consultation, participation, and disclosure of information. In orphan land situations, the client should consider the options provided in national law and offer to acquire the entire land parcel. If the land plot is not considered for full acquisition, the market value of the remainder may decrease significantly, and this should be considered in the valuation of the affected part. | RP and LRP developed under the project will provide compensation at full replacement cost as per PR5. |
| Informed participation of project affected persons PAP | <p>Limited legal basis to provide public disclosure of land acquisition and resettlement activities.</p> <p>However, a number of existing regulations and international conventions, to which Moldova is a party provide a basis for developing specific regulations on public participation and consultation processes for resettlement.</p> <p>Convention on Access to Information, Public Participation in the Decision-Making Process and Access to Justice in Environment (Aarhus, 1998).</p> <p>Law on Access to Public Information No. 148/2023.</p> | PR 5 mandates meaningful consultation and participation for all involuntary resettlement activities. Special efforts must be made to ensure that vulnerable groups, who are disproportionately affected by displacement, have a voice in the consultation and planning processes. | The project will plan and implement meaningful consultation and participation for all resettlement activities throughout the project cycle. This includes disclosing information using simple, practical, accurate, and culturally appropriate documentation intended for broad dissemination, organizing meaningful consultation with affected communities and Project Affected Persons. Special efforts will be made to ensure vulnerable groups have a voice in the consultation and planning processes, thereby mitigating disproportionate adverse impacts on them. The engagement plan must cover further consultation in the resettlement implementation period. |
| Grievance Redress Mechanism | <p>Limited legal basis to establish a grievance mechanism consistent with ESR requirements</p> <p>However, a number of existing regulations provide a basis for addressing grievances</p> <p>Administrative Code no. 116 as of 19.07.2018.</p> | PR 5 requires that clients establish an accessible, transparent, and responsive GRM, typically aligned with PR 10/PR1, early in the project development phase. The GRM concerns and the timely resolution, including a recourse mechanism capable of resolving disputes in an impartial and transparent manner. The mechanism should be operational before the cut-off date and commencement of asset surveys. | The project will establish a GRM consistent with EBRD standards as early as possible in the project development phase before the cut-off date and commencement of asset surveys. A specific grievance management exercise may be needed at the end of the land acquisition process to identify and address these situations. |

| Gap | Moldovan legislation | PR5 | Bridging gaps |
|---|--|---|--|
| | | The grievance mechanism should be able to accommodate the consideration of orphan land issues. | |
| Preference for negotiated agreements | Limited legal basis for preference of negotiated agreements. | PR 5 strongly encourages clients to pursue negotiated settlements to obtain land rights, even when they possess legal authority for compulsory acquisition. This approach minimizes the need for expropriation and delays, significantly reducing adverse impacts on affected persons. Such settlements must meet PR 5 requirements, which include principles of good faith, adequate time, transparency, balance of power, freedom from coercion, and access to support (such as legal advice and grievance mechanisms). Negotiations should be documented in detail to prove these principles were met. | The RP/LRP developed under the project will consider and provide grounds for negotiated settlement. The preference for negotiated settlement will be advocated by the project and adequate methodology will be established. The RP should also detail the process for negotiated settlements (collective then individual negotiations, offers, acceptance, refusal, and formalization of agreement). |
| Minimization of displacement | There is no provision in Moldovan legislation regarding minimization of displacement. | PR 5's primary objective is to avoid or minimize involuntary resettlement. When displacement is unavoidable, the client's first duty is to seek avoidance of displacement, consistent with the mitigation hierarchy. This requires a comprehensive assessment of alternative project designs commensurate with the magnitude of potential displacement. The outcome of the avoidance and minimization process, including justification for residual impacts being unavoidable, must be documented and available prior to financing approval. | Infrastructures' designs will be reviewed and examined to assess if there is room for improvement in terms avoiding involuntary resettlement. If it will be assessed that resettlement is unavoidable, the project will develop RPs and/or LRPs according to PR5. These documents will be revised and approved by the EBRD. |
| Baseline and Cut-off date | There is no provision in Moldova legislation relating to cut-off date establishment. | PR 5 mandates that the client establish a cut-off date for eligibility to prevent opportunistic claims. In the absence of government procedures, the project must establish its own, typically set at the end of the census/inventory process. This date must be transparently established and disclosed to be considered valid. Disclosure should occur locally, use culturally appropriate methods, be disseminated throughout the project area at regular intervals, and be well-documented in the Resettlement Plan. | The project will establish a cutoff date for eligibility. The establishment of the cut-off date will be documented and disseminated through e.g. flyers, public displays, media announcements and social networks in the project area. |
| Preference for in-kind compensation over cash compensation | While Moldovan expropriation law provides grounds for in-kind compensation (land-for-land) there is no provision to enact preference for in- | PR 5 supports the use of in-kind compensation over cash compensation, wherever feasible. Specifically, where displaced persons have land-based livelihoods or the land is | The project will strongly advocate for in-kind compensation especially in cases where vulnerable groups assets will be affected. |

| Gap | Moldovan legislation | PR5 | Bridging gaps |
|---|--|--|--|
| | kind compensation over cash compensation. | collectively owned, the client is expected to offer land-based compensation. If land-based (in-kind) compensation is claimed to be unfeasible or unacceptable to the PAPs, the client must provide a clear demonstration and justification in the RP that livelihoods will not be negatively affected. | |
| Compensation for loss of economic activities and loss of income flow | There is no provision in Moldovan legislation referring to compensation for loss of economic activities and loss of income flow. | PR 5 mandates that the client implements livelihood restoration measures for all involuntarily resettled persons whose livelihoods or income are affected. This is an obligation under PR 5 whenever there is economic displacement. Physically displaced people are also economically displaced in the vast majority of cases. The requirements in PR 5, therefore also apply to physically displaced people. Livelihood restoration activities must also be devised for informal users who may not be eligible for compensation for the land itself. | The project will develop the RP/LRP to consider for the livelihood restoration for the affected persons based on PR5 provisions. |
| Allowances and support during the transition period | There is no provision in Moldovan legislation allowing the provision of transition support and allowances. | PR 5 requires transition support for all economically displaced persons. This support covers the period between the impact on livelihoods and the time when restoration activities yield results. The duration and amount of this support should be based on a reasonable estimate of the time needed to restore their income-earning capacity, production levels, and standards of living. | The project will develop the RAP/LRP to provide transitional support and allowances: e.g.: separate transition allowance or a cash payment factored into the compensation calculation to offset lost income, covering income lost during the period of lost agricultural cycles (e.g. between land entry and access to replacement land), Supporting relocated businesses to cover income lost while they take time to become operational again. |
| Measures for the most vulnerable population. | There is no provision in Moldovan legislation to offer additional assistance to vulnerable groups in resettlement activities. | PR 5 requires clients to identify, assess, and address risks and impacts on vulnerable groups throughout project phases, as they may be disproportionately affected. Specific measures and support for vulnerable people should be included in the project plan, such as: <ul style="list-style-type: none"> ▪ Developing tailored individual action plans for each vulnerable household. ▪ Providing specific support activities and facilitation of access to social welfare support. ▪ improving the living conditions of physically | The RP/LRP developed under the project will consider special provisions and compensation arrangements for vulnerable groups. This may be tailored into additional compensation packages or special support. |

| Gap | Moldovan legislation | PR5 | Bridging gaps |
|--------------------------------|---|--|--|
| | | <p>displaced vulnerable people by providing adequate housing with security of tenure.</p> <ul style="list-style-type: none"> Seeking meaningful improvement of livelihoods for people living in poverty whose livelihoods are affected, rather than just restoration. Ensuring that consultation processes incorporate culturally appropriate methods and safeguards, especially where Indigenous Peoples are involved. Enhanced Monitoring: Conducting specific livelihood and social monitoring (more frequent or longer) in the post-displacement period to ensure effective mitigation. | |
| Legacy Land Acquisition | There is no provision in Moldovan legislation for addressing "legacy" land acquisition. | <p>PR 5 requirements for addressing "legacy" land acquisition (displacement carried out before EBRD involvement):</p> <ul style="list-style-type: none"> conducting an independent audit to check compliance with national law and key ESR 5 objectives where gaps are identified, applying a risk-based approach to address residual or contextual risks. any ongoing land acquisition, even if it was started before EBRD involvement, is required to fully comply with all PR 5 provisions. | For M3 Lot 2, the project will carry out an independent audit, including an associated corrective action plan if needed, and will apply a risk-based approach where appropriate. A supplemental resettlement plan may be required. |

Table6-52: Gap Analysis (table extracted from LARF – Land Acquisition and Resettlement Framework)

The Client explicitly commits to implementing the project according to PR 5 principles, which override national law where gaps exist. This requires specific supplementary measures, financed by the Project, to ensure all affected people are protected.

6.10.1. Land Tenure and Land Use

Land tenure in Moldova refers to the legal and institutional arrangements governing the ownership, use, transfer, and management of land. It defines who owns land, who can use it, for what purpose, for how long, and under which conditions.

Land Tenure based on Land Code:

| Land Classification/Tenure Rights | Categories |
|-----------------------------------|---|
| Type of ownership | <p>Public property lands of the state:</p> <ul style="list-style-type: none"> Includes land essential for national functions: roads, railways, forests of national interest, water bodies of national importance, protected areas, military sites. Managed by central authorities (e.g., NRA for roads, Moldsilva for Forest Fund, Apele Moldovei for Water Fund). |

| Land Classification/Tenure Rights | Categories |
|-----------------------------------|--|
| | <p>➤ Generally non-transferable except under strict legal procedures</p> <p>Public property lands of administrative-territorial units:</p> <ul style="list-style-type: none"> Land owned by districts (Rayon), municipalities, towns and communes. Includes local roads, municipal forests, parks, public squares, communal grazing land, and infrastructure land. Managed by local councils. Transfer/disposal follows local procedures + land legislation. <p>Privately owned land:</p> <ul style="list-style-type: none"> Land held by natural or legal persons under private ownership title, including agricultural plots, construction land, industrial sites, vineyards, orchards, household plots, and other privately used parcels. Owners hold full property rights—possessing, using, and disposing of land—subject to national planning, environmental and land-use restrictions (e.g., water protection zones, forest protection belts, protected areas). Transfer is permitted through sale, donation, inheritance, lease, exchange, or other civil contracts, provided cadastral registration is complete and ownership is undisputed. Land is subject to taxation and must comply with land-use destination established in the Land Code and local urban plans. <p>Expropriation for public utility is allowed only with prior compensation, following the Law on Expropriation and PR5-aligned negotiated procedures where applicable.</p> <ul style="list-style-type: none"> Privately owned land may include plots with multiple heirs, shared (co-owned) titles, easements, or long-term leases, which can complicate land access, compensation, and permitting processes in infrastructure projects. Any changes in category of use require administrative approval from competent authorities (local councils or specialized agencies), ensuring alignment with land-use planning and environmental requirements. |
| Field | <p>Public land</p> <ul style="list-style-type: none"> Land owned by districts (Rayons), municipalities, towns and communes. Includes local roads, municipal forests, parks, public squares, communal grazing land, and infrastructure land. Managed by local councils. Transfer/disposal follows local procedures + land legislation. <p>Private land</p> <ul style="list-style-type: none"> Held by individuals, households, cooperatives, private companies, NGOs, churches. Includes agricultural plots, vineyards, orchards, construction land, industrial land. Fully transferable (sale, lease, inheritance). Subject to land registration in Real Estate Cadastre. |
| Destination | <ul style="list-style-type: none"> Agricultural land; Lands intended for forestry; Lands intended for water bodies; Land intended for construction and development; Land intended for transport, electronic communications networks and mining; Special purpose land; Lands intended for the protection of nature and cultural heritage assets. |
| Tenure rights | <p>Ownership Rights - full rights: possess, use, transfer</p> <p>Lease Rights - most common form for agricultural operations</p> <p>Use Rights without Ownership - State or LPA may grant use rights for social services or community infrastructure, often used for irrigation routes, access paths, public utilities</p> <p>Servitudes (Easements) - Right of way for roads, pipelines, cables</p> <p>Possession without documents - exists in rural areas but requires formalization</p> |

Table6-53: Land Tenure in Moldova

Land in each destination category may have multiple uses. **The National Agency for Land Improvements (NALI)** is administrative authority implementing policies in the field of land improvements, land relations and land monitoring and approves the Land Classifier by category of destination and use – Order OANÎF23/2024

of 13 November 2024, aligning with the Regulation on the content of land cadastre documentation (Government Decision No. 940/2023). Summary of Land use description with relevance to assessment and for resettlement in table below:

| Main Category | Land Use Description | Relevance for assessment ESIA | Relevance for resettlement LARF/PR5 |
|--------------------------|---|---|---|
| Agricultural Land | 1.1 Land for agricultural production (arable land, fallow, orchards, vineyards, nut plantations, berry plantations, household gardens, meadows, pastures, agroforestry areas, garden cooperative plots) | Baseline land productivity, soil quality, ecosystem services; potential impacts from land take or access restrictions | Compensation for crops, perennial plantations; livelihood restoration; identification of affected farmers |
| | 1.2 Agricultural infrastructure (storage, processing halls, cold rooms, post-harvest facilities, livestock farms, irrigation/drainage systems, research labs, agrotourism structures) | Physical impacts on facilities; impacts on agricultural value chains | Compensation at replacement cost for structures; business interruption compensation |
| | 1.3 Land for woody energy crops | Assessment of long-term vegetation and income sources | Compensation for perennial plantations; crop valuation |
| | 1.4 Land for solar photovoltaic systems | Assessment of land conversion; cumulative impacts | Verification of land tenure; assessment of loss of productive land |
| | 1.5 Land for protective forest belts | Assessment of erosion control, ecosystem services | Restricted land use; compensation generally limited (if owned by LPA/state) |
| | 1.6 Agricultural technological and access roads | Traffic, dust/noise impacts; access during construction | Temporary access restrictions; compensation for temporary occupation |
| | 1.7 Garden cooperative orchard plots | High-value fruit production land | Compensation for perennial crops; verification of cooperative land rights |
| | 1.8 Degraded land | Soil quality baseline; erosion risk | Usually low compensation value; used for alignment or temporary works |
| Forest Fund Land | 2.1 Forest-covered land | Biodiversity assessment; habitat impacts | Typically excluded from private compensation (state-owned); requires permits |
| | 2.2 Land under regeneration or plantations | Habitat impact, species composition | Compensation not applicable (state land); permits required |
| | 2.3 Afforestation & reforestation land | Carbon sequestration baseline | State regulatory relevance |
| | 2.4 Forestry nurseries and cultivation land | Impact on forestry production | Compensation if privately leased |
| | 2.5 Forestry production land (willow, Christmas trees, etc.) | Ecosystem and biodiversity baseline | Compensation for planted trees / production losses |
| | 2.6 Forestry administration land | Administrative impacts | Permits; temporary occupation compensation if applicable |
| | 2.7 Land for forest resource management (buildings, utilities, forest roads, etc.) | Infrastructure interaction; cumulative impacts | Compensation for buildings if privately owned; state land requires approvals |
| | 2.8 Non-productive forest land (swamps, rocks, steep slopes) | Sensitive habitats; geohazard assessment | Sensitive habitats; geohazard assessment |
| Water Fund | 3.1 Land under water bodies | Hydrology, aquatic ecosystems | Excluded from compensation; state public property |

| Main Category | Land Use Description | Relevance for assessment ESIA | Relevance for resettlement LARF/PR5 |
|--|--|--|--|
| | 3.2 Riverbeds | Hydrological flow impacts | No compensation (state land); permits required |
| | 3.3 Lake/pond/reservoir basins | Water quality baseline; aquatic habitats | Compensation for fish losses only (if applicable) |
| | 3.4 Wetlands | High ecological sensitivity | Avoidance priority; no compensation (state land) |
| | 3.5 Hydrotechnical structures (dams, pumping stations, irrigation systems) | Water infrastructure interactions | Compensation only if privately owned ancillary assets |
| | 3.6 Fish-farming facilities | Aquaculture baseline | Compensation for economic losses if privately managed |
| | 3.7 Riverbank protection and diversion strips | Erosion and hydrology impacts | No compensation; access restrictions managed |
| | 3.8 Water-supply infrastructure land (wells, pumping stations) | Community health & safety; water access | No compensation; ensure alternative access |
| | 4.1 Residential construction land | Resettlement risks; noise/air impacts | Replacement cost for structures; relocation assistance |
| Construction and Development Land | 4.2 Commercial & services buildings | Economic displacement | Compensation for businesses, income restoration |
| | 4.3 Public buildings (schools, health centres, cemeteries, administration buildings) | Community service continuity | Avoidance priority; relocation of public assets if required |
| | 4.4 Industrial construction land | Industrial baseline and risk assessment | Compensation at replacement cost (if private) |
| | 4.5 Transport infrastructure | Traffic impact, safety, noise | Temporary access compensation |
| | 4.6 Technical–utility infrastructure | Interference with existing utilities | Utility relocation; temporary |
| | 4.7 Mining exploitation land | Ground stability; environmental legacy impacts | Compensation for private rights; permits for others |
| | 4.8 Recreational facilities | Landscape & tourism impacts | Compensation for assets and vegetation |
| | 4.9 Municipal utility facilities | Public services baseline | Avoidance priority; relocation of community services |
| Special purpose land | 5.1 National security and defence land | Restricted access zones | No compensation; interaction with military authorities |
| Land Nature and Cultural Heritage | 6.1 Nature-protection areas | Biodiversity sensitive areas; PR6 | Strict avoidance; no compensation—state protected land |
| Land Nature and Cultural Heritage | 6.2 Cultural heritage land | Archaeological and cultural heritage (PR8) | Chance finds procedures; no compensation unless privately owned monument |
| | | | |

Table6-54: Land use description and relevance to ESIA/LARF

Public property is further divided into **public domain** and **private domain**. Comparison of public domain vs private domain:

| Aspect | Public Domain (State/Administrative Territorial Units) | Private Domain (State/ Administrative Territorial Units) |
|---------------------|--|--|
| Legal status | Public property with special protection | Public property without special protection |
| Alienation | Not allowed | Allowed under law |
| Use | Public utility, infrastructure, heritage | Economic activities, commercial use |
| Legal regime | Administrative/public law | Civil/administrative law |
| Examples | Roads, water bodies, forests, parks, protected areas | Agricultural land, land for development, plots for privatization |
| ESIA impact | Requires permits, cannot be acquired | Can be acquired, rented, exchanged |

Table6-55: Public domain/Private domain

Moldovan legislation also supports specific legalization and regularization processes:

1. Cadastre System: The underlying system for recording land ownership and tenure details is the unified cadastre system, managed by the Agency for Public Services (PSA). The legal framework for this is established by the Law of Real Estate Cadastre (LP1543/1998).
2. Cadastral Correction and Formalization: National procedures exist for the correction of cadastral errors, such as those provided by Law no. 354/2004. Cadastral works are mandated in the expropriation process (e.g., under GD 323/2025 and GD 781/2013) for the identification of private property and correction of errors.
3. Inheritance and Dispute Resolution: The national framework includes procedures to resolve complex issues such as unregistered transactions or inheritance procedures, often addressed through the courts.

These processes ensure that individuals who are determined to have a legal claim can formalize their status and receive compensation.

A Land Acquisition and Resettlement Framework (LARF) is being prepared in parallel and ESIA cross-references that document in accordance with EBRD ESR 5.

6.10.2. Permanent Land Acquisition

The Project is being developed mostly within land plots designated for road operation, excepting Lot 4 bypass of Giurgiulești, which will require private land acquisition and Lot 2 where land has already been acquired. The land plots are of state property and managed by NRA according to GD 362 /2011 on the approval of the list of public state property lands occupied by national roads.

Planning certificates issued for the design of roads regarding Lot 1, Lot 2 and Lot 4 have been issued according with the Law 163 from 09.07.2010 regarding the authorization of the execution of construction works, which was repealed by The New Code of Urbanism and Construction 434 of 28.12.2023, entered into force on 30.01.2025. The table below describes the land tenure allocated preliminary indicated in Planning Certificates elaborated for project designing.

| Lot 1-4 | Existing road/New Construction | Planning Certificates elaborated by/date | Land Tenure | Designer of the Project |
|---|--|--|---|---|
| Lot 1 Chisinau – Porumbrei km 00+000 – 34+350 | Existing road/ Project design 2015 | Cimislia district administration/ 01 from 14/01/2015 | land located outside the built-up areas of localities Codreni Porumbrei, public land km 27+000-34+350 | Tecnica Consulting Engineering SRL Romania, Universin SRL Moldova |
| | | Porumbrei Mayorality / 01/11.02.2021 | land located outside the built-up areas of localities Porumbrei, Sagaidacul Nou, public land, adjustment of km 41+600-44+350 | |
| | | Ialoveni District/ 180 from 18.12.2014 | land located outside the built-up areas of localities from Ialoveni District, public land km 7+000 – 27+000 | |
| Lot 2 Porumbrei-Cimișlia | Existing road Rehabilitated in 2022 - 2 lanes / Project Design 265/13 | 2013 – in Phase 1. For Phase 2 design project is missing | land located outside the built-up areas of localities Porumbrei-Cimișlia | Universin SRL Moldova |
| Lot 3 Cimișlia-Comrat | Existing road | The design project is missing | No data available | No data available |
| Lot 4 Giurgiulesti bypass Connection between borders | New road – bypass Existing road D066 PE/2044 – connection between borders UA-RO D065 PE/2024 | Cahul District/ 1 from 18.01.2024 Giurgiulesti village / 7 from 26.07.2024 | land located outside the built-up areas of localities Cișlița-Prut Giurgiulești, public land and inside the area of Giurgiulesti village public land. | VIAAB Engineering SRL Moldova |

Table6-56: Overview of planning certificates

The permanent land acquisition foreseen for the rehabilitation/construction works under Lots 1–4, based on the information available at this stage of the Project, is described below:

Lot 1 Airport I/C – Porumbrei. Lot 1 (Aeroport Chișinău – Porumbrei, 34.4 km) km 10+000 – 44+350 – rehabilitation: It is indicated in the Planning Certificate (**Table6-56**) that land is located outside the built-up areas of localities from Ialoveni District, public land km 7+000 – 27+000, outside the built-up areas of localities Codreni, Porumbrei, public land, km 27+000-34+350, outside the built-up areas of localities Porumbrei, Sagaidacul Nou, public land, adjustment of km 41+600-44+350. All works remain within the existing Right-of-Way. No permanent land acquisition is required, temporarily occupied during construction, reconstruction and other works - missing, all reconstruction works are carried out within the limits of the existing road and related areas. Design of works was elaborated in 2015, subject to be updated.

Lot 2 (Porumbrei – Cimișlia, 19 km) rehabilitation & widening of 19 km of road from 2 to 4 lanes.

km 44+420 – 63+430 – rehabilitation/construction: Total land allocated for construction in the Porumbrei–Cimișlia sector: 108,4526 ha, including: 64 public lands and 190 private lands for Lot 2 were acquired in Phase 1 of the road rehabilitation, 2019 (Bridge structures, culverts, engineering networks, and the roadbed are 95–100% complete). Compensation was paid. The total land use of the 254 acquired lands: 57 public lands intended for transport, electronic communications networks and mining. Destination category: 4 lands intended for construction and development; 11 gardens; 168 agricultural; 14 uncategorized. Phase 2 detailed design is currently not elaborated. *For M3 Lot 2, the project will carry out an independent audit, including an associated corrective action plan if needed, and will apply a risk-based approach where appropriate. A supplemental*

resettlement plan may be required.

Lot 3 (Cimișlia – Comrat, 12 km) km 70+350 – 82+430 – rehabilitation: Connection between two bypasses. No detailed design available. No new alignment or additional land acquisition is foreseen.

Lot 4 (Bypass road of Giurgiulești village, Cahul district, 3,85 km) (connection between M3 and R34) with parking area for freight transport – construction, Feasibility Study, Execution Design completed in 2024. Land acquisition impacts for bypass sector: Total: 59 private agricultural lands and 18 public lands (1 forest- fund land; 17 uncategorized) (based on available data).

| Expropriation according to the road area project, ha | | Expropriation according to the project for the road safety zone, ha | | Existing public road | Total |
|--|---------------------|---|---------------------|----------------------|--------|
| Existing public land outside the village | Private arable land | Existing public land outside the village | Private arable land | | |
| 8,141 | 0,345 | 3,692 | 2,759 | 0,731 | 14,765 |

Table6-57: Component 1: Bypass Road of Giurgiulești village, Cahul district

The lands necessary for the construction of the new road section, which will connect the existing roads R34 Hâncești – Leova – Cahul – Giurgiulești and M3 Chișinău-Comrat- Giurgiulești-Ukraine Border, are divided into 7 categories:

1. Existing public road, which does not require expropriation.
2. Existing public land, owned by the Cîșlița-Prut and Giurgiulești Local Public Administration (LPA), outlying area. Expropriation for the road construction zone.
3. Private arable land, Cîșlița-Prut LPA, outlying area. Expropriation for the road construction zone.
4. Private arable land, Giurgiulești LPA, outlying area. Expropriation for the road construction zone.
5. Existing public land, owned by the Cîșlița-Prut and Giurgiulești, LPA outlying area. Expropriation for the road safety zone, according to Law 509 on Roads.
6. Private arable land, Cîșlița-Prut LPA, outlying area. Expropriation for the road safety zone, according to Law 509 on Roads.
7. Private arable land, Giurgiulești LPA, outlying area. Expropriation for the road safety zone, according to Law 509 on Roads.

The surface area of the land in each category, along with the cadastral number, is presented in the execution project, proposed for expropriation for the construction of the Giurgiulești Bypass Road, Cahul district.

Lot 4 M3/M3.1 (M3 road Chisinau – Comrat – Giurgiulesti – border with Romania, km 211.98 – 213.69 and the M3.1 (Giurgiulesti – border with Ukraine, km 0.0 – 0.65 (connection road of the Giurgiulesti - Reni and Giurgiulesti - Galati state border crossing points) – rehabilitation.

Land acquisition impacts for connection sector: 49 private lands and 20 public lands (based on available data) For M3.1. specifically: 9 private lands (of which 5 agricultural lands; 2 land intended for construction and development and 2 gardens); 7 indefinite ownership; 14 public lands (of which 3 land intended for construction and development; 1 agricultural; 1 special purpose land; 9 uncategorized).

| Expropriation according to the road area project, ha | | | Expropriation according to the project for the road safety zone, ha | | | Existing public road | Total |
|--|---------------------------|----------------------------|---|---------------------------|----------------------------|----------------------|-------|
| Existing public land outside built-up areas | Private construction land | Private arable land/garden | Existing public land outside built-up areas | Private construction land | Private arable land/garden | | |
| 1.330 | 0.215 | 0.880 | 0.962 | 0.111 | 0.378 | 5.664 | 9.541 |

Table6-58: Allocated land necessary for the rehabilitation of the road sectors M3 Chisinau - Comrat Giurgiulesti - border with Romania PC 2119+20.00 - PC 2136+90.00 and M3.1 Giurgiulesti - border with Ukraine PC 00+00.00 - PC 06+80.00

1. Existing public road that does not require expropriation.
2. Existing public land outside the city owned by the Giurgiulesti LPA - expropriation for the road construction area.
3. Private land for construction, Giurgiulesti LPA - expropriation for the road construction area.
4. Private arable land/garden, Giurgiulesti LPA outside the city - expropriation for the road construction area.
5. Existing public land, Giurgiulesti LPA - expropriation for the road safety area according to Law 509 on Roads.
6. Private land for construction, Giurgiulesti LPA - expropriation for the road safety area according to Law 509 on Roads.
7. Private arable land/garden, Giurgiulesti LPA outside the city - Expropriation for the road safety area according to Law 509 on Roads.

Moldovan legislation provides only a limited basis for negotiated agreements, relying primarily on compulsory acquisition procedures. In contrast, PR 5 strongly encourages the use of negotiated settlements to obtain land rights, emphasizing good-faith engagement, transparency, adequate time, balanced negotiation conditions, and access to support for PAPs. Negotiations must be well-documented to demonstrate compliance with ESR 5 principles.

The Project will therefore develop a RAP (Resettlement Action Plan) that defines a clear methodology and step-by-step process for negotiated settlements (collective and individual), including offer preparation, acceptance/refusal pathways, and formalization.

6.10.3. Temporary used land

Temporarily land plots might be required at the construction stage to organize borrow pits, construction sites, storage areas, etc. Construction sites to be arranged in line with the requirements of state construction norms and will include areas for machinery parking, mechanical workshops, materials storage areas and personnel facilities. The exact location of the construction sites and their area will be defined within the construction Works Execution Plans, which will be developed by a Contractor(s) based on the Construction Management Plans and detailed design documentation after completion of the tendering process. The Project may also require some temporary land take for construction laydown areas, temporary storage of excavated materials/soil, cut trees etc.

State lands will be used for establishment of construction camps, work sites borrow pits, access roads, etc. Private lands can be used only if no state land is available and with approval of NRA (no agricultural lands shall be used). The temporary use of lands shall be done in accordance with the provisions set in LARF (Land Acquisition and Resettlement Framework) – a separate document to ESIA.

The Contractor will provide to the Investor (or by proxy to the Supervising Engineer) all agreements for temporary land lease from private owners for review to ensure:

- Compensation for all losses (including income, crops, and assets) is calculated at full replacement cost and delivered prior to land entry.
- Specifically defined lease period.
- Baseline survey of the land plot (to document existing conditions prior to use).
- A requirement to reinstitute the land and property to its original state at the end of the lease period, or pay compensation for any residual damage

Lot 4: Borrow Pit "Cîșlița-Prut" is located on publicly owned land (plot no. 5415029) outside Cîșlița-Prut village, Cahul district and outside inhabited zones, with no surface water sources in the vicinity. The total area of the land – 3,00 ha.

Associated Facilities: Adjacent to the Giurgiulești village bypass road, NRA plans the construction of a parking area with a capacity of 30–50 vehicles per day. The project is at the design stage and is located outside the built-up area of Giurgiulești village, Cahul District, on agricultural land. Parking area – covering approximately 3.5 ha, consisting of a concrete/asphalt-paved platform (detailed information in subchapter 2.2.2 Associated Facilities)

Temporary occupation of land for construction purposes must be compensated. Any unavoidable temporary use of private land must be compensated at full replacement cost and the land must be handed back after proper reinstatement to its original state.

6.10.4. Land expropriation phases under National Legislation

The presented below plan provides a detailed guide to the stages required for the expropriation of land for public utility and real estate in the Republic of Moldova, according to the latest legislative amendments. The durations of each stage are approximate and may vary depending on the number of lands and the specifics of each project.

| Step | Duration | Activities |
|---|------------|---|
| 1. Preliminary Research (Preliminary Research Committee) | 1-2 months | 1. Formation of the commission according to GD no. 660/2006 for the approval of the Regulation on the method of preliminary research for declaring the public utility of the object of expropriation. 2. Identification of land and real estate. 3. Assessment of social and economic impact. 4. Preparation of the preliminary research report. |
| 2. Declaration of Public Utility (Parliament) | 1-2 months | 1. Presentation of the preliminary research report to Parliament. 2. Adoption of the decision declaring the project to be of public utility. |
| 3. Cadastral Works (Formation and Error Correction) | 2-3 months | 1. Delimitation and identification of affected lands. 2. Correction of cadastral errors according to Law no. 354/2004. 3. Preparation of updated cadastral documentation. |
| 4. Evaluation (Determination of Compensation Value) | 1-2 months | 1. Hiring within tender the appraiser according to Law No. 989/2002 regarding the evaluation activity. 2. Evaluation and determination of the market price. |

| Step | Duration | Activities |
|---|--------------|--|
| | | 3. Preparation of the evaluation report. |
| 5. Submission of Proposals (Notification to Owners) | 1-2 months | 1. Preparation of expropriation proposals. 2. Notification of owners and publication in the Official Gazette. |
| 6. Grievance Redress Mechanism (Grievance Redress Committee) | 1-2 months | 1. Establishment of the Grievance Redress Committee. 2. Analysis and resolution of objections and grievances. |
| 7. Determination of the Amount of Compensation (Authorized Body) | 1 month | 1. Determination of the amount of compensation based on the assessment. 2. Preparation of the compensation decision. |
| 8. Recording of amounts (Bank Account) | 1 month | 1. Transfer of compensation amounts to the owners' bank accounts. 2. Issuance of payment confirmations. |
| 9. Expropriation Decision (Authorized Body) | 1 month | 1. Adoption of the expropriation decision by the competent body 2. Issuance of the expropriation decision |
| 10. Registration of Rights in the Real Estate Registry (RER) | 1-2 months | 1. Submission of documentation for registration of expropriation rights in Real Estate Registry (RER) 2. Updating information in Real Estate Registry (RER) |
| 11. Destination Change File (Pedology, Loss Calculation) | 1-2 months | 1. Preparation of the file for changing the destination of expropriated lands. 2. Assessment of the pedological impact and calculation of losses according to Government Decision No. 1170/2016 |
| 12. Adoption of the Government Decision on the Change of Destination (Government) | 1-2 months | 1. Presentation of the file to the Government for the adoption of the decision regarding the change of land use. |
| 13. Changes in Real Estate Registry (RER) | 1-2 months | 1. Updating records in Real Estate Registry (RER) to reflect changes in destination. 2. Issuing updated cadastral documents. |
| Total estimated period | 15-22 months | |

Table6-59: Overview of expropriation stages

| Feasibility Study/Project Documentation | Declaring public utility and issuing special GD for the expropriation procedure | The stage of the expropriation procedure at the ESIA assessment phase (preliminary research, cadastral works/cadastral assessments, informing owners, compensation decision, etc.) |
|--|---|---|
| Lot 1 (Airoport Chişinău – Porumbrei, 34.4 km) km 10+000 – 44+350 – rehabilitation | | |
| Feasibility Study 2009 elaborated by KOCKS Consult GmbH and UNIVERSINJ SRL DD from 2014, elaborated by Tecnic Consulting Engineering-Romania/Universinij SRL | No Special Law and GD was elaborated | No preliminary research was initiated for land determination through preliminary research committee (No stage ongoing linked to Table6-59) |
| Lot 2 (Porombrei – Cimişlia, 19 km) rehabilitation & widening of 19 km of road from 2 to 4 lanes. (Category A) km 44+420 – 63+430 – rehabilitation/construction | | |
| Feasibility Study from 2009 Detailed Design 265/13 Universinij SRL for phase 1 For Lot 2 - phase 2 (widening from 2 to 4 lanes) detailed design is not elaborated. | Legea 150/2012 ⁵⁷ regarding the declaration of public utility of national interest for the rehabilitation and expansion works of some national roads, including M3 - Sagaidac, Coştangalia, Gradişte, Ecaterincvca, Cimişlia, Comrat, Vulcăneşti, Ciurmai, Burlăceni, Slobozia Mare, Cîşliţa-Pрут, Giurgiuleşti. GD 781/2013 ⁵⁸ regarding some measures to ensure the rehabilitation and expansion | Land acquisition has been undertaken as part of Phase 1. Land plots were already expropriated via signing of direct purchase of the land during phase 1, 2019 prior to EBRD involvement) (190 private lands, 64 public lands), no further land acquisition is expected for Phase 2 (widening from 2 to 4 lanes) (Stages 1-13 linked to Table6-59 completed in Phase 1). The primary impact regarding Lot 2 – relates |

⁵⁷ https://www.legis.md/cautare/getResults?doc_id=2319&lang=ro⁵⁸ https://www.legis.md/cautare/getResults?doc_id=6195&lang=ro

| Feasibility Study/Project Documentation | Declaring public utility and issuing special GD for the expropriation procedure | The stage of the expropriation procedure at the ESIA assessment phase (preliminary research, cadastral works/cadastral assessments, informing owners, compensation decision, etc.) |
|---|--|--|
| | <p>of the national roads M3 Chisinau – Cimișlia – Vulcănești – Giurgiulești – border with Romania including:</p> <p>carrying out the complex of cadastral works (identification of private property, delimitation of public property, correction of errors made when assigning public property land, modification of cadastral plans, development of territorial organization projects, development of geometric plans, initiation and approval of real estate formation works)</p> <p>evaluation for the purpose of determining the amount of compensation for objects subject to expropriation</p> <p>development of soil studies and preparation of files for changing the land use category.</p> <p>submit, by notification, the expropriation proposals (offers) to the owners of the objects subject to expropriation</p> <p>nominalisation composition of the committees for resolving objections of expropriated persons (GRM)</p> | to legacy land acquisition and potential residual impacts such as unaddressed grievances, insufficient documentation, uncompensated losses, or vulnerable households who may have been affected by earlier processes. The scale of impact will depend on the outcome of the planned independent audit, which will determine whether gaps exist and whether corrective or supplemental resettlement measures are required. |
| Lot 3 (Cimișlia – Comrat, 12 km) km 70+350 – 82+430 – rehabilitation | | |
| Feasibility Study 2009 DD was not elaborated | No Special Law and GD was elaborated | No preliminary research was initiated for land determination through preliminary research committee (No stage ongoing linked to Table 4.48) |
| Lot 4 (Giurgiulești bypass and connection of border points, 6.2 km) – construction of the bypass road of Giurgiulești village, Cahul district, L= 3.85 km (connection of M3 and R34) and major repair of the M3 road Chisinau – Comrat – Giurgiulești – border with Romania, km 211.98 – 213.69 and M3.1 Giurgiulești – border with Ukraine, km 0.0 – 0.65 (connection road of the Giurgiulești - Reni and Giurgiulești - Galati state border crossing points) | | |
| Feasibility Study D-078-SF/2024 Detailed Design D-066-PE-2024, D-065-PE-2024, elaborated by VIAAB Engineering SRL | <p>Law 18/2025⁵⁹, on the declaration of public utility of national interest of construction, rehabilitation, modernization and expansion works of national public roads, including state border crossing points with related infrastructures.</p> <p>GD 323/2025⁶⁰ regarding some measures to ensure the expropriation process for works declared of public utility of national interest by Law No. 18/2025 as follows:</p> <p>carrying out the complex of cadastral works (identification of private property,</p> | <p>According with tender acquisition plan for 2025 is ongoing execution of cadastral works and evaluation services for the purpose of determining the amount of compensation in the process of expropriation of land for:</p> <p>M3 Chisinau - Comrat - Giurgiulești - border with Romania and M3.1 Giurgiulești - border with Ukraine, (sector M3.1 - border crossing point with Romania) - 49 private lands (cadastral works and evaluation) and 20 public lands (only cadastral works). (Stage 3-4 ongoing linked to Table6-59)</p> |

⁵⁹ https://www.legis.md/cautare/getResults?doc_id=147219&lang=ro

⁶⁰ https://www.legis.md/cautare/getResults?doc_id=148852&lang=ro

| <i>Feasibility Study/Project Documentation</i> | <i>Declaring public utility and issuing special GD for the expropriation procedure</i> | <i>The stage of the expropriation procedure at the ESIA assessment phase (preliminary research, cadastral works/cadastral assessments, informing owners, compensation decision, etc.)</i> |
|--|--|--|
| | <p>delimitation of public property, correction of errors made when assigning public property land, modification of cadastral plans, development of territorial organization projects, development of geometric plans, initiation and approval of real estate formation works)</p> <p>evaluation for the purpose of determining the amount of compensation for objects subject to expropriation</p> <p>development of soil studies and preparation of files for changing the land use category.</p> <p>submit, by notification, the expropriation proposals (offers) to the owners of the objects subject to expropriation</p> <p>nominalisation composition of the committees for resolving objections of expropriated persons (GRM)</p> | Giurgiulesti village bypass road (connection between M3 -R34) - 59 private lands (cadastral works and evaluation) and 18 public lands (only cadastral works) (Stage 3-4 ongoing linked to Table 4.48) |

Table6-60: Expropriation level per lots linked to Table6-59

Legacy Land Acquisition (land acquisition or displacement processes that occurred before the involvement of the international financier) - in respect to M3 Lot 2 Expropriation Phase I (2019): The PR5 gap analysis elaborated in Land Acquisition Resettlement Framework (LARF), part of the Project, concluded that Moldovan legislation has no provisions for managing legacy land acquisition. Under EBRD PR5, such cases require an independent audit, a risk-based approach to address remaining gaps, and full compliance with ESR5 for any ongoing land acquisition. For M3 Lot 2, the Project will conduct the required audit as a stand-alone document, apply corrective actions as needed, and prepare a supplemental resettlement plan if gaps are identified.

6.10.5. GRM during expropriation according to national Law

Along with the GRM envisaged for mitigation of the Project's social impact, there is a Grievance redress mechanism provided for by the Law (Administrative Code) related with complaints linked to the amount of compensation due to PAPs for permanent or temporary land expropriation.

After having received the Notification on expropriation and the proposal/offer, the Project affected persons, if the proposed offer is not considered acceptable, can address a complaint/grievance to the Grievance Redress Committee within 45 days after the proposal receipt. In order to be informed when their grievance has been well-received and is being processed, the complainants can either bring it personally to the entity responsible for dealing with the complaints (NRA), where the documents are registered and taken in the works by the Grievance Redress Committee, or send it to that entity by registered mail.

The Grievance Redress Committee will be established by decision of the RM Government and will include 3 permanent members, experts in the field of activity in which run the works of national interest, and 3 members

of the local council of the municipality, town or village where the properties proposed for expropriation are located, without including the owners and holders of other rights in rem over the expropriation of objects, their family members and relatives up to the fourth degree inclusive, persons holding positions in Central or local government and who have an interest in expropriation. The Committee will examine the claims and relevant supporting documents, not later than 60 days from the date of registration thereof. The Committee's decision concerning the claim formulated in response to the complainants, will notify the person affected no later than 15 days from the time of the decision's issue.

If the complainant is content with the Committee's decision on his/her claim the grievance is closed. In the opposite case, the Commission decisions may be subject to judicial process (contested in the Court). The law on Declaration of public utility will determine the limits of the right of appeal in the Court. The affected persons may contest only the amount of compensation payable, and not the fact of expropriation/use of the land in question.

The Law on Declaration of public utility for construction works will assign the responsible authorities with the right to process personal data of the persons affected, with the right to request relevant information from the object of expropriation of any public or private institution, etc. This responsibility is expected to be assigned to NRA. The relevant documents shall be registered and archived by them.

As a result, the national grievance pathway—although clearly defined through the Administrative Code and the Government-appointed Grievance Redress Committee—is limited to contesting the amount of compensation, not the terms of acquisition or alternative solutions. This creates a gap with PR5, which promotes early engagement, meaningful negotiation, and exploration of alternatives before compulsory land acquisition is used.

6.11. Landscape and visual aspects

The M3 Road (Chişinău – Giurgiuleşti) traverses a variety of landscape units, ranging from the gently undulating agricultural plains of the central region to the more pronounced relief and forested areas of the Ialoveni part of the region. The visual character of the corridor is predominantly rural, with scattered settlements, agricultural fields, orchards, and patches of natural vegetation along valleys and slopes.

The existing road already represents a dominant linear feature within the landscape. The proposed rehabilitation and widening works will therefore not introduce a completely new element, but will rather modify the visual appearance of the existing corridor through improved alignment, road surface, embankments, drainage structures, and safety barriers.

7. Stakeholder Engagement

7.1. Information disclosure

In accordance with national legislation, public access to environmental and social information is a core requirement for public infrastructure projects. The National Road Administration (NRA) is responsible for ensuring timely disclosure and communication with stakeholders through multiple channels. The Mass Media and Communications Department manages regular website updates and coordinates public notices.

Grievance management is carried out in line with national procedures. Complaints may be submitted verbally or in writing to the NRA Secretariat (Registration Office) and are then directed to the relevant department. Issues related to Project roads are forwarded to the Project Implementation Unit (PIU), which provides responses within 30 days in accordance with the Administrative Code 116/2018. Urgent cases are handled through an accelerated process; if additional time is required, a new deadline and responsible officer are assigned.

An online petition form for public submissions is available at: <https://www.and.md/petitii-online/>.

In line with EBRD Performance Requirement 10 (Information Disclosure and Stakeholder Engagement), the ESIA package, NTS, SEP, ESAP, ESMP, RSA and LARF will be disclosed in both Romanian and English before Project approval. Documents will be accessible via the NRA website, municipal offices, and the EBRD disclosure platform, with notices published in local media. The NRA will maintain a disclosure log recording locations, dates, and materials disclosed to the public.

7.1.1. Stakeholder Engagement (Scoping and ESIA engagement)

The methodology applied for scoping stakeholder engagement was informed by a comprehensive assessment of contextual factors most relevant to affected and interested parties. The approach considered the current level of advancement of the Detailed Design, the status of environmental permitting processes, the national land acquisition framework and its implementation progress, category of the road (express road), as well as the degree and intensity of community interactions observed along Lots 1–4. These elements collectively shaped the identification of priority topics, stakeholder groups, and the required depth and timing of engagement activities.

Category A projects are required to carry out a formalized, participatory consultation process integrated into each stage of the environmental and social impact assessment (ESIA) process (Scoping Stage and ESIA disclosure package).

The scoping-stage stakeholder engagement for the M3 Tranche 2 corridor set out to identify who is affected or interested, capture location-specific concerns, and refine the scope of the ESIA. Stakeholders were mapped through an internal workshop on 29th of August 2025 with NRA against two dimensions—degree of impact and level of interest—and grouped as: national ministries and agencies; regional and district authorities; municipal administrations; project-affected communities (residents, landowners, businesses); workers and labour representatives; potential suppliers and contractors; civil society and thematic NGOs; and local press and online media.

The Methods used for Scoping Stage Engagement *EBRD Guidance Note Information Disclosure and Stakeholder Engagement 2023* are detailed below.

Information Disclosure Tools

Announcements were posted by the National Road Administration and by district and local authorities across their websites and social media. Given the prevalence of community Viber and Facebook groups, local administrations also used these channels to reach residents quickly and collect feedback. Where online presence is limited, notices were displayed physically at mayoralty buildings. This multi-channel approach improved reach and ensured that even small or remote communities were aware of the project, upcoming consultations, and the route for questions or complaints. The **A4 Leaflet** used in scoping stage is presented in **ANNEX C** to SEP (Stakeholder Engagement Plan) as part of ESIA package.

| Lots (1-4) | Stakeholder | Published Announcement (on-line) |
|------------|--|--|
| 1-4 | National Road Administration | https://www.andsa.md/consultari-publice-anunturi-si-procese-verbale/anunt-cu-privire-la-lansarea-proiectului-de-evaluare-impactului-de-mediul-social-si-siguranta-rutiera-pe-traseul-m3/ |
| 1 | Commune Bacioi, Mayoralty | https://bacioi.md/2025/09/12/anunt-cu-privire-la-lansarea-proiectului-de-evaluare-a-impactului-de-mediul-social-si-siguranta-rutiera-pe-traseul-m3/ |
| 1 | District Council Ialoveni | https://il.md/2025/09/10/autoritatile-lanseaza-studiul-privind-impactul-de-mediul-si-siguranta-rutiera-pe-traseul-m3/ |
| 1 | Commune Răzeni Mayoralty | https://www.facebook.com/share/p/1CAiHQeqyG/?mibextid=wwXlfr |
| 1 | Commune Horești Mayoralty | https://horesti.md/2025/09/10/anunt-7/ https://www.facebook.com/primaria.horesti/ |
| 1 | Commune Țipala Mayoralty | https://tipala.primarie.md/news/lansarea-proiectului-de-evaluare-a-impactului-de-mediul-social-si-siguranta-rutiera-pe-traseul-m3/ |
| 2-3 | District Council Cimișlia | https://raioncimislia.md/2025/09/10/anunt-cu-privire-la-lansarea-proiectului-de-evaluare-a-impactului-de-mediul-social-si-siguranta-rutiera-pe-traseul-m3/ https://www.facebook.com/share/p/14H9NqJReYL/?mibextid=wwXlfr |
| 2-3 | City Cimișlia Mayoralty | https://www.facebook.com/share/p/1Ah1ne5PhF/?mibextid=wwXlfr |
| 2 | Commune Porumbrei Mayoralty | https://www.facebook.com/share/p/16ZYYWAeFC/?mibextid=wwXlfr |
| 2 | Commune Sagaidac Mayoralty | published on the information board in front of the main building of the mayoralty |
| 2 | Village Grădiște Mayoralty | https://primariagradiste.md/2025/09/09/anunt-cu-privire-la-lansarea-proiectului-de-evaluare-a-impactului-de-mediul-social-si-siguranta-rutiera-pe-traseul-m3/ https://www.facebook.com/share/p/1EjGFhBmeh/?mibextid=wwXlfr |
| 2 | Commune Ecaterinovca Village Coștangalia | published on the information board in front of the main building of the mayoralty |
| 3 | Primaria Ciucur-Mingir Mayoralty | https://www.facebook.com/share/p/1671UyCEXX/?mibextid=wwXlfr https://ciucurmingir.sat.md/2025/09/09/anunt-cu-privire-la-lansarea-proiectului-de-evaluare-a-impactului-de-mediul-social-si-siguranta-rutiera-pe-traseul-m3/ |

| | | |
|---|-----------------------------------|--|
| 4 | District Council Cahul | https://cahul.md/anunt-cu-privire-la-lansarea-proiectului-de-evaluare-a-impactului-de-mediu-social-si-siguranta-rutiera-pe-traseul-m3/ https://www.facebook.com/share/p/18uZ8g8izH/?mibextid=wwXlfr |
| 4 | City Cahul Mayoralty | https://primariacahul.md/media-category/noutati-si-evenimente/se-lanseaza-evaluarea-impactului-pentru-modernizarea-traseului-m3-chisinau-comrat-giurgiulesti-frontiera-cu-romania https://www.facebook.com/share/p/19vYq5bgen/?mibextid=wwXlfr |
| 4 | Village Giurgiulești Mayoralty | https://www.facebook.com/story.php?story_fbid=3163525133814073&id=100004698518744&mibextid=wwXlfr&rdid=h2QM1WBVmaFzI5Ny# |
| 4 | Village Cîșlița-Prut Mayoralty | https://www.facebook.com/share/p/14Jqox5ZQhF/?mibextid=wwXlfr |

Table 7-1: Overview of published announcement

Multichannel publication demonstrated effectiveness of spreading the information and gather feedback from the residents (63 residents raised concerns regarding actual and recommendations designing the road). Record of feedback (official letters, community requests) will be transmitted to NRA and shall be incorporated into the first Annual Environmental and Social Performance Report, to demonstrate how stakeholder feedback is continually being used to improve the overall design and performance of the Project.

Information boards in villages from Aol of the Project, especially in front or inside mayoralty buildings are useful and familiar for providing regular updates, notifications and contact or grievance mechanism details to local communities, particularly where information boards are already an established means of information dissemination. Examples of publication on information boards:

**Figure 7-1: Information boards**

In-person meetings with Local Representatives and residents of the villages per Lot 1-4 and concerns raised

| Date | Locality Stakeholder Engaged | Feedback/Concerns/Issues |
|-------------------|--|--|
| 28.08.2025 | (Lot 1, 2) Porumbrei Village, Mayor | No recent consultations had been held on the current designs and welcomed the scoping dialogue as a chance to align the road works with local development. The commune reported strong diaspora return dynamics (new housing each year), very high gas network coverage, recent wastewater investment and stable school enrolments—indicators of a growing settlement that will benefit from improved access and road safety. The mayor's office committed to provide cadastral extracts to verify land plots potentially affected by widening and to help convene focus groups with farmers and roadside businesses |
| 28.08.2025 | (Lot 4) Giurgiulești Village, Mayor | Safety and access management, Integration with border logistics and regional projects is a priority in the south The mayor and council emphasised the acute need to divert heavy transit flows from the village centre after two decades of burdensome through-traffic. The bypass was widely seen as the single most important improvement for community well-being and safety. Local services are comparatively strong for a small commune (school, kindergarten, clinic, library, museum; broad aqueduct coverage), yet gaps remain—most notably the incomplete sewerage network and a legacy of unmanaged waste that the municipality is working to systematise. The administration offered parcel-level land information for the bypass and confirmed readiness to coordinate with the Giurgiulești International Free Port and the two cross-border points (Giurgiulești–Galați and Giurgiulești–Reni) so construction logistics and future traffic management are coherent. Local authorities asked that truck parking and staging areas be planned coherently with the bypass, and noted the interface with the Slobozia-Mare bypass now under construction. |
| 28.08.2025 | (Lot 4) District Council Cahul, vice president | Construction Impacts The administration echoed community concerns, highlighting building cracks and household repair costs attributed to vibration from heavy vehicles, and supported the plan for a truck parking area and logistics improvements near the border to better stage international freight. The district also pointed to a network of regional strategies (water, waste, transport, climate, public health) that should frame the project's mitigation and monitoring. |
| 12.09.2025 | (Lot 1) Bacioi village, Mayor | Peri-urban safety and access concerns at junctions and along densely settled frontages Mayor requested a properly designed junction at km 13+243 (accel/decel lanes) to serve a growing residential area, noise barriers along inhabited stretches, and a new turning facility near Străisteni to support the emergent industrial zone. |
| 12.09.2025 | (Lot 1) Horești village, Țipala village, Mayors | Safety and access management Horești and Țipala stressed the need to regularise and make safe the access patterns that have evolved over time: businesses and farms rely on multiple informal turn-ins; residents use unsafe U-turns near a fuel station to avoid long detours; and poor night-time visibility contributes to collisions. Both communes asked that all accesses be audited for safety, that lighting be provided at the L465 round junction, and that agricultural machinery movements be explicitly accommodated in design. |
| 18.09.2025 | (Lot 1) Răzeni village, Mayor | Safe, signed and lit junctions with accel/decel lanes Răzeni, split by the M3, flagged high crash risk at town entries and the particular danger for pedestrians crossing to the cemetery on the opposite side; the commune advocated full median separation, elimination of at-grade crossing movements, controlled access with acceleration/deceleration lanes (including at km 28 to orchards), and alternative parallel routes for vehicles restricted from an expressway |
| 18.09.2025 | (Lot 1) Focus Group Discussion with elderly people (20 participants) | Formal pedestrian solutions where communities or destinations (e.g., cemeteries) lie across the carriageway; and measures to deter cut-through traffic in villages. Răzeni residents reinforced the mayor points and added requests for continuous lighting and formalised crossings. |
| 19.09.2025 | (Lot 2) Sagaidac Village, Mayor | Mayor reported good basic access and viewed the 2-to-4 lane expansion as a net benefit for safety and economic links, provided temporary construction impacts are well managed |
| 20.09.2025 | (Lot 3) Ciucur-Mingir | The administration raised a recurring pattern of drivers diverting through the |

| Date | Locality Stakeholder Engaged | Feedback/Concerns/Issues |
|------------|------------------------------------|--|
| | village, Mayoralty | village at high speeds to avoid monitoring on the mainline, asking for signage and restrictions at the M3 interface to deter cut-through traffic. |
| 18.12.2025 | (Lot 3) Ciucur Mingir residents | Were raised a series of concerns regarding road safety of the residents of the village, requesting urgent interventions to repair the access roads to the M3 national route on the grounds that they are not asphalted for a few meters as required by the regulation, but have high thresholds that cause problems for both transport circulation and the movement of citizens. |

Table 7-2: Raised concerns by local representatives and residents

Detailed Scoping Stage engagement is described in **SEP**, including detailed feedback in **ANNEX C**.

In person individual meetings with businesses along the roadside: Lot 1 Examples

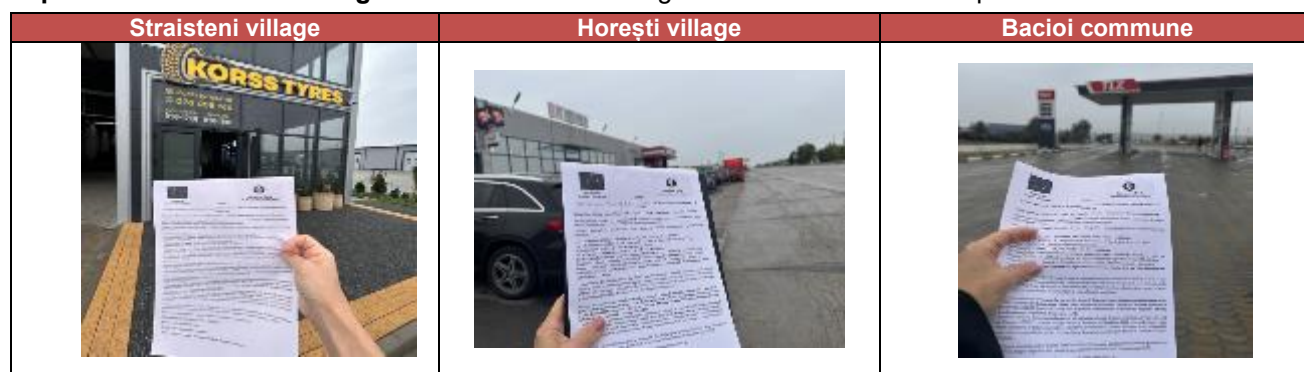


Figure 7-2: Fotos of business meetings

Site visits and targeted site visits with mayors were conducted as a key engagement method to directly identify social receptors, observe local conditions, identify the principal concerns of residents within the Project's Area of Influence, and gather context-specific feedback related to the proposed road rehabilitation and new construction works. These visits enabled the Project team to validate community priorities, assess potential impact pathways, and integrate locally informed insights into the ongoing design and planning process.



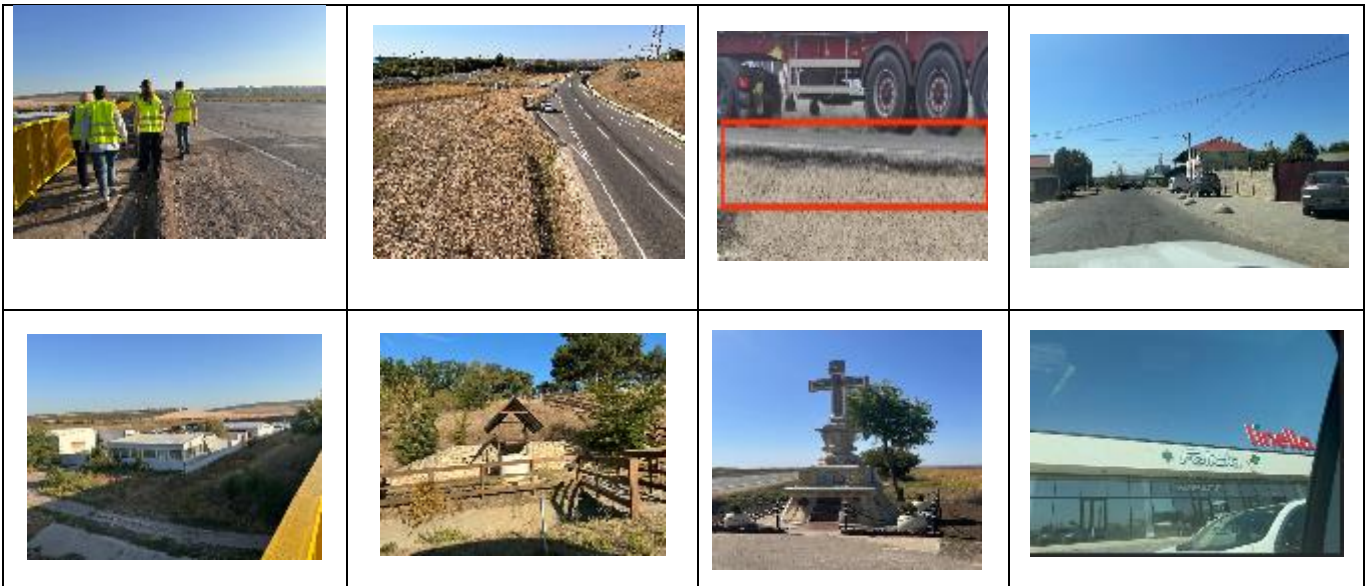


Figure 7-3: On-site visits of the different Lots

Workshops with NRA, ANTA were held to discuss organization of the road project in terms of capacity and capability, policies and management systems in place, current compliance with the EU policies and strategies, future programs. Organization of works for the proposed project (management / oversight of contractors for construction work, management of labour), management of environmental and social impacts, stakeholder engagement and management of grievances (labour, communities), management of land displacement and compensation, past legacies, monitoring, reporting and communication, Road Safety Audits performance.

| 29 th of August 2025 NRA | 21 st of October 2025 NRA | 21 st of October 2025 ANTA |
|-------------------------------------|--------------------------------------|---------------------------------------|
| | | |

Figure 7-4: Table: Meetings with the NRA

The engagement also outlined the grievance redress mechanism (GRM) to be operated through the National Road Administration. Core design principles were presented: accessible and free to use; available in Romanian and Russian with male and female contact points; accepting anonymous submissions; providing acknowledgement within seven working days; and allowing escalation to independent mediation or the courts at any time. Special provisions were highlighted for land acquisition and resettlement contexts (advance distribution of leaflets before surveys and at valuation disclosure; field presence to explain options; and recording of grievances centrally to allow trend analysis and timely corrective action). The GRM will be tied to contractor complaint logs during construction and integrated with the NRA/PIU reporting system, with periodic public summaries to build confidence in responsiveness.

During the Scoping phase for the M3 Road Rehabilitation Project (Lots 1–4), a targeted **media search** was conducted to complement stakeholder identification and understand the public discourse surrounding the

project. The review focused on national and local news outlets, official institutional websites (Customs Service, NRA, MIDR), EU/CEF communications, and public consultation platforms.

The purpose of this media scan was to: identify **community concerns, expectations, and perceptions**, particularly around the Giurgiulești bypass and adjacent border infrastructure; track **ongoing institutional consultations** relevant to road rehabilitation, land needs, and customs infrastructure; identify **projects or initiatives linked to or influencing M3 Lots 1–4**, such as border modernisation, TEN-T extensions, or public procurement plans; provide contextual background to inform the ESIA's stakeholder engagement strategy.

The findings showed that media coverage is strongest for the **Giurgiulești–Galați–Reni border area** (Lot 4), where community expectations and EU-funded initiatives receive significant attention. Local voices reflect concerns about traffic, safety, noise, and the timeline for bypass construction. Institutional portals (Customs Service, NRA) highlight procedural consultations, design and land needs, and coordination with EU programmes such as the CEF.

A summary of the articles reviewed is presented in the **ANNEX C of SEP**.

From this scoping-stage engagement, key issues emerged that will shape the ESIA and design process.

| Nr. | Key issues in scoping stage engagement |
|-----|--|
| 1. | Road safety and access management dominate community concerns in Lot 1, Lot 3 and in Giurgiulești: for Lot 1 stakeholders seek full median separation to prevent at-grade conflicts; safe, signed and lit junctions with accel/decel lanes; formal pedestrian solutions where communities or destinations (e.g., cemeteries) lie across the carriageway; and measures to deter cut-through traffic in villages, for Lot 3 stakeholders seek interventions to repair the access roads to the M3 national route as the actual situation creates road safety issues and restriction signages, residents from Giurgiulești are expecting the bypass of Giurgiulești over 20 years and regarding road between borders the most concern refers to truck parking. |
| 2. | Land and cadastral clarity is essential: several mayoralities committed to provide parcel lists to support a transparent PR5-compliant process, but asked for early, property-level engagement to avoid misunderstandings. |
| 3. | Construction impacts must be tightly controlled—dust, noise, night-time lighting, work hours, temporary diversions, and access to farms and small businesses—backed by a clear liaison function so problems are fixed quickly on site. |
| 4. | Biodiversity and protected areas require a structured PR6 approach: seasonal surveys, buffers and timing restrictions near Emerald sites and the Lower Prut wetlands, and early dialogue with reserve managers to align works with conservation priorities. |
| 5. | Integration with border logistics and regional projects is a priority in the south: local authorities asked that truck parking and staging areas be planned coherently with the bypass, and noted the interface with the Slobozia-Mare bypass now under construction. |
| 6. | Communication and inclusion matter: residents want regular, plain-language updates; vulnerable groups need targeted outreach; and community feedback should be visible in design refinements. Finally, several local administrations highlighted noise as a medium-term operational concern and requested barriers where settlements about the carriageway. |

Table 7-3: Identified key issues

Overall, scoping engagement confirmed strong support for the project's objectives, provided that design explicitly addresses local safety hotspots, land and access realities, and ecological sensitivities. The ESIA will carry these priorities forward by (i) focusing the road safety audit on the named junctions and frontage risks; (ii) applying PR5 good practice to land acquisition with early parcel-level dialogue; (iii) formalising construction controls and a site-level community liaison function; (iv) delivering a PR6-aligned biodiversity assessment with seasonal fieldwork and works timing plans near Emerald and wetland receptors; and (v) operationalising the GRM with clear service standards and public reporting. These steps will ensure that stakeholder inputs are translated into practical measures, reducing risk and enhancing the net social and environmental performance of the M3 Tranche 2 investment.

Between 10–26 February 2026, the Project Implementation Unit (NRA) and ESIA consultants conducted a

comprehensive stakeholder engagement and baseline socio-economic survey campaign across all settlements within the Area of Influence (Aol) of M3 Lots 1–4. Activities aligned with EBRD Performance Requirement 10 and Moldovan legislation on public consultation and access to information.

Engagement covered all Aol communities from Lots 1–4, including Băcioi, Străisteni, Răzeni, Horești, Țipala, Porumbrei, Sagaidacul Nou, Sagaidac, Ecaterinovca–Coștangalia, Grădiște, Cimișlia City, Ciucur-Mingir, Cîșlița-Prut and Giurgiulești.

Over 350+ participants attended community meetings and more than 160 household surveys were conducted. Across all localities, a standardised and multi-modal engagement approach was applied, ensuring inclusiveness and accessibility:

Public Announcements and Information Disclosure

Online publication of consultation notices on NRA and mayoralty websites, *Information boards* posted at mayoralty buildings and local platforms, *Leaflet distribution* including Project description, maps, and GRM instructions.



Figure 7-5: Examples of public announcements and information disclosure

Community Meetings and Focus Group Discussions (FGDs)

Conducted in every locality, ensuring open participation of residents, landowners, farmers, businesses, and social institutions. Used to present Project scope, expected impacts, preliminary design features, and the ESIA process.



Figure 7-6: Pictures from the community meetings and FGDs

Baseline Socio-Economic Survey

Household-level structured questionnaires implemented in all localities (Lot 1–4), covering: Demographics, income, employment, access to services, road safety exposure, community health and safety, vulnerability, land use, assets and previous acquisition experience.

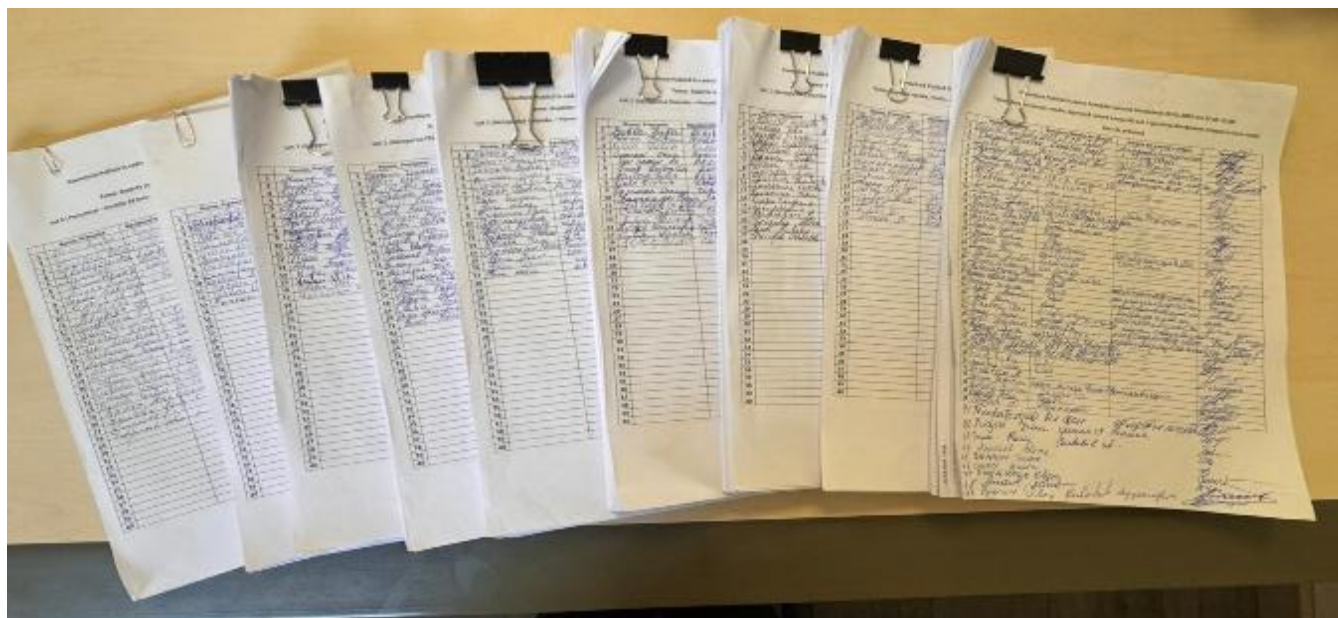


Figure 7-7: Example of filled-in questionnaires

During the ESIA scoping stage, baseline environmental and socio-economic conditions were established primarily using secondary data sources, including official statistics, existing studies, and administrative records. While these sources provided a robust initial understanding of the project context, certain data gaps were identified, particularly in relation to site-specific and community-level socio-economic conditions. To address these gaps and strengthen the evidentiary basis of the assessment, a targeted baseline survey was undertaken before the ESIA public disclosure period. The survey generated primary, up-to-date data from project-affected communities and will be used to validate, refine, and complement the findings of the scoping-stage assessment. This survey served both as a data-collection tool and as a consultation instrument, allowing affected communities to provide direct input into the assessment process. The result of this survey was fully integrated into the ESIA document, ensuring a comprehensive and proportionate assessment of potential impacts in line with EBRD Performance Requirement PR10 and PR1. Draft of Baseline Questionnaire/Survey and a comprehensive leaflet which followed the engagement are presented in the **ANNEX G of SEP**.

| Lot | Comm unities/ Key Stakeh olders | Engag ement and Primar y Data Collect ion | Proposed Type of Engagement | Respons ibilities | Link to publication | Participants |
|----------|---|---|--|-----------------------------|---|------------------------------|
| All | NRA | 10-26 Februar y 2026 | Baseline Survey and Community Engagement | ESIA Consulta nts/NRA | https://www.andsa.md/consultari-publice-anunturi-si-procese-verbale/anun-cu-privire-la-organizarea-consult-rilor-publice-privind-proiectului-de-evaluare-a-impactului-de-mediul-social-i-siguran-rutier-pe-traseul-m3/ | On-line Announcement |
| Lot 1 | Băcioi comm | 10 th of Februar | Community meeting, FGD | ESIA Consulta | https://bacioi.md/2026/02/05/consultari-publice-privind-proiectului-de- | Community Engagement - 22 |

| Lot | Communities/ Key Stakeholders | Engagement and Primary Data Collection | Proposed Type of Engagement | Responsibilities | Link to publication | Participants |
|-------|---|--|---|----------------------|--|---|
| | une with villages Străisteni, Frumușica, Brăila | y 2026 11.00-12.00 | landowners near M3 ROW and roadside businesses, FGD with Vulnerable People, Baseline survey, Leaflet presentation with Project Information and GRM | nts/NRA | evaluare-a-impactului-de-mediu-social-si-siguranta-rutiera-pe-traseul-m3/ | participants, including landowners FGD with women – 12 participants Surveyed – 25 residents |
| Lot 1 | Răzeni commune with Milestii Noi village | 10 th of February 2026 14.00-15.00 | Community meeting, FGD with farmers/land users and businesses near M3 ROW, FGD with women (vulnerable groups), Baseline survey, Leaflet presentation with Project Information and GRM | ESIA Consultants/NRA | https://www.facebook.com/share/p/1aqyY4W3Jx/?mibextid=wwXlfr | Community Engagement - 23 participants FGD with women – 10 women Surveyed – 16 residents |
| Lot 1 | Horești commune | 11 th of February 2026 10.00-11.00 | Community meeting, FGD with agricultural landowners and businesses near M3 ROW, FGD with vulnerable people, Baseline Survey Leaflet presentation with Project Information and GRM | ESIA Consultants/NRA | https://www.facebook.com/share/p/18RPHiX66r/?mibextid=wwXlfr https://horesti.md/2026/02/05/520/ | Community Engagement - 23 participants, including farmers and RoW businesses. FGD with women – 10 women Surveyed – 10 residents |
| Lot 1 | Țipala commune with Budăi and Bălțați villages | 11 th of February 2026 13.00-14.00 | Community meeting, Meeting with LPA social assistant and FGD with vulnerable groups, Leaflet presentation with Project Information and GRM, Baseline Survey | ESIA Consultants/NRA | https://tipala.primarie.md/events/consultari-publice-proiectul-de-evaluare-a-impactului-pe-traseul-m3/ | Community Engagement - 16 participants FGD with women – 8 women Surveyed – 11 residents |
| Lot 1 | Porumbrei commune with Săgaid | 17 th of February 2026 11.00-12.00 | Joint Lot 1–2 session, Community meeting, FGD with landowners of past Phase 1 | ESIA Consultants/NRA | https://www.facebook.com/share/p/1DUpxhecRQ/?mibextid=wwXlfr | Community Engagement - 18 participants, including business representatives. FGD with women – 8 |

| Lot | Communities/ Key Stakeholders | Engagement and Primary Data Collection | Proposed Type of Engagement | Responsibilities | Link to publication | Participants |
|-------|--|--|---|----------------------|---|--|
| | acul Nou village | | land acquisition, Leaflet presentation with Project Information and GRM, Baseline Survey | | | women FGD with elderly – 14 people Surveyed – 15 residents |
| Lot 2 | Sagaidac village | 17 th of February 2026 14.00-15.00 | Community meeting, FGD with vulnerable households (elderly/women), Leaflet presentation with Project Information and GRM, Baseline Survey | ESIA Consultants/NRA | published on the information board in front of the main building of the mayoralty and viber group | Community Engagement - 19 participants FGD with women – 7 women, FGD with elderly – 10 people Surveyed – 16 residents |
| Lot 2 | Grădiște village | 19 th of February 2026 11.00-12.00 | Community meeting, KII with LPA social assistant and FGD with vulnerable groups, Baseline Survey, Leaflet presentation with Project Information and GRM | ESIA Consultants/NRA | https://primariagradiste.md/2026/02/10/anunt-cu-privire-la-organizarea-consularilor-publice-privind-proiectul-de-evaluare-a-impactului-de-mediu-social-si-siguranta-rutiera-pe-traseul-m3/ | Community Engagement - 16 participants FGD with women – 6 women, FGD with elderly – 10 people Surveyed – 16 residents |
| Lot 2 | Ecaterinovca commune with Coștăgalia village | 19 ^h of February 2026 9.00-10.00 | Community meeting, KII with social workers, Baseline Survey Leaflet presentation with Project Information and GRM FGD focusing on safety (children transported to school in Grădiște) | ESIA Consultants/NRA | https://primariaecaterinovca.md/ | Community Engagement - 28 participants FGD with women – 9 women, FGD with elderly – 11 people Surveyed – 18 residents |
| Lot 4 | Cișlița-Prut village | 20 th of February 2026 11.00-12.00 | Community meeting, FGD farmers & landowners near bypass, Baseline Survey on Land Acquisition and Resettlement | ESIA Consultants/NRA | https://www.facebook.com/share/p/1DnZY2Yetz/?mibextid=wwXlfr | Community Engagement - 14 participants FGD with women – 5 women, FGD with elderly – 9 people Surveyed – 12 residents |
| Lot 4 | Giurgiulești village | 20 th of February 2026 13.00-14.00 | FGD with businesses, Women's group session, Elderly households' consultation, FGD farmers & landowners near | ESIA Consultants/NRA | https://www.facebook.com/share/p/14W99A2R9tF/?mibextid=wwXlfr | Community Engagement - 45 participants FGD with women – 20 women, FGD with elderly – 25 people FGD with business – 5 enterprises |

| Lot | Communities/ Key Stakeholders | Engagement and Primary Data Collection | Proposed Type of Engagement | Responsibilities | Link to publication | Participants |
|-------|---|--|--|----------------------|---|--|
| | | | bypass, baseline survey | | | Surveyed –29 residents |
| Lot 2 | Cimișli a City (Joint Lot 2-3 sessions) | 23th February 2026 10.30 – 11.30 | Community meeting, FGD and Baseline Survey, Leaflet presentation with Project Information and GRM, Baseline Survey | ESIA Consultants/NRA | https://www.facebook.com/share/p/17jMZ2r9nd/?mibextid=wwXlfr | Community Engagement - 35 participants FGD with women – 18 women, FGD with elderly – 13 people FGD with business – 6 enterprises Surveyed –29 residents |
| Lot 3 | Ciucur-Mingir village | 23 th of February 2026 13.00- 14.00 | Community meeting, FGD focusing on safety (children transported to schools located near school), Household-level engagement for disabled/elderly groups, Baseline Survey | ESIA Consultants/NRA | https://www.facebook.com/photo?fbid=2172123426957213&set=qm.1752907182780433&idortv=355999019137930 | Community Engagement - 24 participants FGD with women – 11 women, FGD with elderly – 15 people Surveyed –16 residents |

Table 7-4: Overview of the engagement activities

Although each locality reflected local-specific issues, several recurring themes emerged across the corridor

| Key concerns across communities | Description |
|---|---|
| Road Safety (Dominant Concern Across All Lots) | Unauthorised accesses and lack of acceleration/deceleration lanes. Irregular manoeuvres by drivers crossing M3 to avoid grade-separated interchanges. High incidence of road accidents and near-misses, including cases involving children and cyclists. Lack of protection barriers, unsafe curves, insufficient channelisation. Poor road illumination, especially near settlements, junctions and bus stops. |
| Mobility of Agricultural Machinery and Quality of Alternative Routes | Farmers consistently reported unsafe use of M3 due to lack of viable parallel roads. Alternative agricultural tracks are muddy, unmaintained and unsafe, especially under bridges. |
| Noise, Dust and Air Quality | Particularly severe in Băcioi, Răzeni, Giurgiulești and Sagaidacul Nou. Complaints regarding cumulative noise (road + airport, Lot 1) |
| Business Access and Economic Activity | Businesses requested: Guaranteed direct access or adequate alternative routes. Accel/decel lanes to maintain commercial viability. Avoiding closure of existing entries without prior consultation. |
| Pedestrian Safety and Public Transport | Missing or unsafe pedestrian crossings (e.g., cemetery access in Răzeni). Unsafe behaviour of public transport operators stopping directly on the M3 (Porumbrei–Sagaidacul Nou). Long walking distances to bus stops (Sagaidac village). |
| Vulnerable Groups' Risks | Elderly and women highlighted: Fear of construction-period impacts, worker influx, visibility, and unsafe temporary routes. Need for well-lit, safe access, GRM ability to submit complaints anonymously. |
| Drainage, Flooding and Local Infrastructure | Coștangalia reported flooding during past construction (2020) and fear of recurrence. |
| Border Area Issues (Lot 4) | Giurgiulești raised: Persistent dust, vibration, and emissions from intensive heavy truck traffic. Need for truck parking and staging areas to avoid congestion. Risks to cyclists and schoolchildren due to trucks parked along roadway. |

Table 7-5: Key concerns of the communities

Across all localities, residents expressed strong support for the Project, highlighting expected improvements in safety and connectivity. Commonly proposed measures included:

- **Noise barriers** for settlements located close to the road.
- **Improved illumination** at junctions, bus stops and residential clusters.
- **Parallel/alternative routes** for agricultural machinery and local access.
- **Dedicated pedestrian crossings**, including a second crossing in Răzeni and improvements in Porumbrei/Sagaidacul Nou.
- **Enhanced traffic management during construction**, clear signage and safe access.
- **Continued information flow** from NRA and contractors; functional GRM.

Detailed presentation of community meetings and baseline survey resume in SEP and Annexes. A **Road Safety Audit (RSA)** has been conducted as part of the ESIA package to ensure that the rehabilitation and upgrading of the M3 corridor incorporate internationally recognised safety principles and comply with EBRD PR4 requirements. The RSA forms an integral component of the Project's impact assessment process and assesses the existing road safety conditions, design features, access arrangements, and potential risk factors to all categories of road users—including pedestrians, cyclists, agricultural machinery operators, public transport passengers, and vulnerable groups.

7.1.2. SEP and further engagement

A Project-specific SEP and a dedicated Grievance Mechanism have been developed in accordance with national requirements and EBRD PR 10. These instruments will be approved and implemented by the NRA and Contractors to ensure continuous, transparent, and inclusive engagement throughout the Project lifecycle. Further stakeholder engagement will continue during detailed design and construction phases to ensure that all affected groups remain informed and consulted. Ongoing engagement will address the following priority areas:

- Access arrangements to residential properties, commercial facilities, and agricultural land;
- Land acquisition (temporary, permanent)
- Community Health and Safety during construction;
- Pedestrian infrastructure design (crossings, sidewalks, access to schools, churches, kindergartens, and other social facilities);
- Coordination with local development plans and schedules of community infrastructure projects (e.g. water supply and sanitation);
- Access to pastures and agricultural plots along the road;
- Road-safety measures identified in the Road Safety Audit (e.g. reducing access points, removing visibility obstructions, and introducing speed-calming within settlements);
- Long-term planning of the regional road network (traffic forecasts, future bypass plans); and
- Public information on final design solutions, construction schedules, job opportunities, safety precautions, and the Grievance Redress Mechanism.

The SEP will be implemented jointly by the NRA PIU and Contractors, under supervision of the NRA Environmental and Social (E&S) Team, which will coordinate, monitor, and report engagement activities.

Stakeholder engagement outcomes and grievance statistics will be summarized in semi-annual environmental and social monitoring reports submitted to the EBRD.

The SEP will remain a living document, updated as the Project design, construction schedule, or stakeholder priorities evolve, ensuring continuous compliance with EBRD PR 10 and ToR requirements.

7.1.3. ESIA disclosure

The Draft ESIA documentation will be disclosed for a period of 120 days, during which all stakeholders will have the opportunity to review the materials and submit comments or concerns prior to Board consideration.

| Document | Purpose |
|--|---|
| Non-Technical Summary (NTS) | Provide concise, bilingual summary of ESIA findings |
| Full ESIA (ESMP, ESAP, LARF, RSA) | Provide detailed technical and mitigation information |
| Stakeholder Engagement Plan (SEP) | Describe engagement and grievance process |
| Grievance Redress Mechanism (GRM) | Explain complaint procedure |

Table 7-6: Overview of disclosure documents

| Lot | Communities/Key Stakeholders | Consultation schedule (indicative) | Type of Engagement | Responsibilities |
|-----|---|--|--|-------------------------------|
| All | National Road Administration Ministry of Infrastructure and Regional Development | 15 th April 2026 | Workshop ESIA Package Disclosure Present ESIA findings and mitigation measures. Explain consultation methodology. Confirm LPA responsibilities for local disclosure. Reiterate GRM channels and monitoring requirements. | NRA / MIDR / ESIA Consultants |
| All | National Road Administration | 16 th April 2026 | Publish ESIA package, SEP, NTS, GRM procedure on NRA website. Media release + social media notifications. Dispatch disclosure letters to LPAs of all communities Lot 1–4. Confirm venue availability across districts and communities | NRA / MIDR / ESIA Consultants |
| All | Public Consultations with Communities | April/May 2026 (dates to be confirmed) | Disclosure meetings (detailed community meetings in the table below) | NRA/ESIA Consultants |
| All | NRA/MIDR | 13 th of August 2026 | Official End of ESIA Disclosure Period (120 days) | NRA / MIDR / ESIA Consultants |
| All | Consolidation & Follow-Up | TBC | Stakeholder Feedback Presentation Presentation of consolidated feedback. Explanation of how comments will be integrated in final ESIA. Publication of Consultation Summary Report (CSR). Finalize the ESIA Disclosure package for EBRD. | ESIA Consultants |
| All | Final ESIA | TBC | Final ESIA package | ESIA Consultants |

Table 7-7: Indicative ESIA Disclosure Package

Disclosure channels during project lifecycle

Disclosure materials will be available:

- On the official websites of MIDR, NRA, and the EBRD;
- At the offices of Local Public Authorities (LPAs), community centres, and public libraries along the corridor;
- At project information boards at construction sites;
- Through social media and local radio for announcements;

Each consultation event will be publicized at least 10 working days in advance through online and printed notices.

During the 120-day disclosure period, the Project will conduct an extensive programme of public engagement across all settlements located within the Area of Influence (AoI). This will include open public hearings organised in the district centres of Ialoveni, Cimişlia and Cahul, followed by community-level meetings in every locality affected by Lots 1–4. In parallel, the Project will hold targeted focus group discussions with women and female-headed households, elderly persons, low-income households, persons with disabilities, farmers and landowners, as well as roadside businesses. Additional consultations will be carried out with relevant institutions, including schools, local mayoralities, emergency services, border police and customs authorities. Each meeting will present the ESIA findings and the functioning of the Grievance Redress Mechanism, and will provide space for discussing mitigation measures, access arrangements, and construction-related traffic, while collecting feedback, concerns and recommendations from stakeholders.

The indicative plan for ESIA disclosure included in the table below:

| Lot | Communities/Key Stakeholders | Proposed ESIA disclosure | Type of Engagement | Responsibilities |
|-------|--|--------------------------|---|----------------------|
| Lot1 | Băcioi commune with villages Străisteni, Frumuşica, Brăila | March 2026 | Community meeting, FGD landowners near M3 and roadside businesses, FGD with vulnerable groups | ESIA Consultants/NRA |
| Lot 1 | Răzeni commune with Milestii Noi village | March 2026 | Community meeting, FGD with farmers/land users and businesses near M3, FGD with women (vulnerable groups) | ESIA Consultants/NRA |
| Lot 1 | Horeşti commune with Zămbreni, villages | March 2026 | Community meeting, FGD with agricultural landowners and businesses near M3, FGD with vulnerable people | ESIA Consultants/NRA |
| Lot 1 | Țipala commune with Budăi and Bălțați villages | March 2026 | Community meeting, Meeting with LPA social assistant and FGD with vulnerable groups | ESIA Consultants/NRA |
| Lot 1 | Porumbrei commune with Sagaidacul Nou village | March 2026 | Joint Lot 1–2 session, Community meeting, FGD with vulnerable groups | ESIA Consultants/NRA |
| Lot 2 | Sagaidac village | March 2026 | Community meeting, FGD with vulnerable households (elderly/women), | ESIA Consultants/NRA |
| Lot 2 | Gradişte village | March 2026 | Community meeting, FGD with vulnerable groups | ESIA Consultants/NRA |
| Lot 2 | Ecaterinovca commune with Coştangalia village | March 2026 | Community meeting, FGD focusing on safety (children transported to school in Grădişte) | ESIA Consultants/NRA |
| Lot 2 | Cimişlia City (Joint Lot 2-3 sessions) | March 2026 | Community meeting, FGD | ESIA Consultants/NRA |
| Lot 3 | Ciucur-Mingir village | March 2026 | Community meeting, FGD focusing on safety (children | ESIA Consultants/NRA |

| | | | | |
|--------------|-----------------------------|------------|--|----------------------|
| | | | transported to schools located near school) | |
| Lot 4 | Cîșlița-Prut village | March 2026 | Community meeting, FGD farmers & landowners near bypass | ESIA Consultants/NRA |
| Lot 4 | Giurgiulești village | March 2026 | FGD with businesses, Women's group session, Elderly households' consultation, FGD farmers & landowners near bypass | ESIA Consultants/NRA |

Table 7-8: indicative disclosure plan

7.2. Stakeholders' engagement activities during project lifecycle

SEP present key stakeholder's engagement activities to take place during the project preparation stage through to implementation and closure. Additional activities can be included following consultations with project beneficiaries, stakeholders and contractors if these are deemed useful and necessary. SEP and ANNEXES provide a comprehensive Stakeholder Engagement Program to be followed during the lifecycle of the project. Engagement methods will be tailored to the stakeholder group and stage and are proposed below:

| Engagement Methods | Purpose/Description |
|--|---|
| Electronic publications | On-line publications as announcements, invitation to public consultations (publication 10 days earlier before consultations) are available on web-platforms of lead stakeholders, NRA/PIU and LPA (Local Public Administration) and social platforms as Facebook/Viber to assure a more transparent communication with communities. The links to on-line publications of stakeholders used for scoping consultation are specified in the paragraph 5.1.1 |
| Media releases | The press and media outlets used will raise awareness of the availability of the above documents during each stage of the Project, including links to the PIU's website where the documents will be available electronically. The press and media outlets shall also be used to inform people where physical copies of the documents are, so that they can comment on them, and also physically attend meeting venues when these are organized and the actual date, time and location is known. |
| Public meetings and hearings | The disclosure of information should support consultation. Consultation is a two-way process of dialogue between the Project implementation team and its stakeholders. These consultations will be held at least twice per year during lifecycle of the Project and provide opportunity for all citizens to raise issues with NRA/PIU. NRA/PIU will also request communities' feedback on how to make consultations more effective into implementation. The results of such consultations will be documented, agreed with community leaders, and posted on NRA/PIU website. |
| Workshops | The workshops with experts will be held to consult the revision and development of designs during the preconstruction, construction and operational phase. Also, several workshops with citizen/ stakeholders will be carried out. The main topics of these workshops will be the ways of information and awareness of stakeholders on project benefits, established implementation procedure, timing for project implementation, GRM. Other topics relevant for these workshops will be identified during project implementation. |
| FGD (focus group discussions) | FGDs help identify local concerns, expectations, site-specific risks, and opportunities, ensuring that the ESIA integrates community knowledge, vulnerabilities, and context-specific mitigation measures. Detailed Focus Group Discussions with communities are presented in paragraph 5.1.1 during ESIA preparation and ESIA disclosure plan para.5.2 |
| Key informant interviews | Targeted stakeholder engagement method to gather expert, experience-based insights from individuals with in-depth knowledge of local conditions, institutional processes, and potential project impacts. They support scoping and impact assessment by providing qualitative information on environmental, social, land-use, health, and governance issues, helping to identify risks, refine mitigation measures, and complement data from surveys and public consultations. |
| Social Baseline/Land use and Resettlement Questionnaire | Document the socio-economic conditions of households, existing land use patterns, and the presence of any formal or informal land rights. It helps identify potentially affected people, understand livelihood dependencies, and establish the reference point for assessing project impacts, eligibility for compensation, and future resettlement or livelihood restoration measures. Questionnaire Presented in SEP and LARF . |
| Leaflets/Informative Notes | Leaflets with information that might present more interest for affected parties, such as the benefits of proposed investments, will be developed and distributed in the meetings/ |

| Engagement Methods | Purpose/Description |
|---------------------------|---|
| | public consultations/ public institutions (LPA, FGD etc.). The leaflets will be available in Romanian/ Russian (if needed) languages. The leaflet presented in SEP ANNEX was designed to be used by NRA during project lifecycle. |
| Information Boards | Using Information Boards of LPA. On these information boards will be placed the information related to the Project, relevant for every phase of Project implementation. |
| Letters | The letters will be an instrument used in order to facilitate the Project implementation process through good collaboration between the implementing entities and other stakeholders. |
| Reports | The reports will be used to monitor the Project implementation and to keep informed the main stakeholders of the Project. |
| E-mails | To facilitate communication between implementing entities |
| GRM | GRM will be established in line with the EBRD's PR10 requirements. A dedicated grievance mechanism will be set up for the Project. The stakeholders will be able to raise grievances anonymously by phone or online using the PIU's on-line GRM form. |
| Grievance Log | Where grievances, including those delivered through the online platform, are registered (including grievance delivered by letter mail or in writing) and maintained, followed up and resolved through a database. |

Table 7-9: Overview engagement methods

All consultations will be documented (minutes, attendance lists, photos, summaries).

Methods for Collecting Feedback

Stakeholders may submit comments through:

- GRM submission forms (online and printed)
- Email and postal addresses of NRA and ESIA consultants
- Registers at mayoralities
- Feedback boxes placed at local administrative buildings
- Direct submission at public meetings

A log of all comments will be recorded and included in the Final ESIA and Consultation Report.

8. Potential Impacts

The Environmental and Social Impact Assessment (ESIA) was prepared in accordance with the EBRD Environmental and Social Policy (2019) and its relevant Performance Requirements (PRs).

Its objective is to identify, describe, and evaluate the potential environmental and social impacts associated with the M3 Road Rehabilitation Project and to propose mitigation and enhancement measures proportionate to the assessed level of significance. Assessment process. The ESIA combined desk-based research, field investigations, GIS spatial analysis, and stakeholder engagement to build a robust understanding of existing conditions and potential changes resulting from the Project.

The process aimed to integrate both technical data and community perspectives within a consistent, semi-quantitative framework.

Key steps included: Review of existing information – technical studies, design documentation, and planning reports provided by the Client or national institutions.

- Field verification – structured site visits to confirm baseline conditions, identify sensitive receptors, and collect primary environmental and social data.
- Stakeholder engagement – consultations with project-affected persons (PAPs), community representatives, and NGOs to capture local concerns and validate preliminary findings.
- GIS-based analysis – overlay of spatial data to locate potential conflict zones or cumulative sensitivities.

Scope of topics addressed. Fieldwork and analysis covered both biophysical and socio-economic domains, including:

- Environmental conditions – land use, vegetation, water resources, geology, soil quality, biodiversity, and potential natural hazards;
- Infrastructure and mobility – existing road geometry, traffic flow, and safety constraints;
- Community aspects – livelihoods, access to services, and vulnerability patterns (women, children, elderly, low-income households);
- Public health and safety – exposure to noise, air emissions, and construction-phase hazards;
- Gender dimensions – accessibility, safety, and mobility differences between women and men;
- Socio-economic linkages – employment, local enterprise development, and regional connectivity;
- Opportunities for positive impacts – improved access to education, healthcare, markets, and jobs.

Spatial analysis. A Geographic Information System (GIS) was used to integrate and analyse spatial datasets related to:

- Protected and sensitive natural areas;
- Zones subject to floods, landslides, or erosion;
- Settlements and community infrastructure;
- Hydrographic features and drainage systems;
- Land-use categories and cadastral parcels;
- Geological formations and slope stability;
- Cross-border proximity to environmentally significant sites.

This integration allowed for mapping of environmental and social receptors in relation to project works, enabling a transparent and traceable assessment of potential impacts.

Outcome. By linking the structured methodology from Section 5.1 with site-specific data and community feedback, the ESIA provides a comprehensive, evidence-based assessment of potential environmental and social impacts. This approach ensures consistency across all impact themes, supports prioritisation of mitigation measures, and underpins developed for the Project.

8.1. Impact assessment methodology

The method proposed for the ESIA report will determine the **significance of an impact** on an environmental / social component (the impact receptor) according to three (3) criteria:

- (i) *intensity* (determined according to the value/vulnerability of the impact receptor and the magnitude of the effect),
- (ii) *duration* (the temporal aspect)
- (iii) *extent* (spatial aspect).

The significance of an impact is decided by evaluating its intensity, duration, extent and the likelihood of an impact occurring within the certain context (geographic scope and scale).

The decision about the significance of impact is proposed to be taken by using the following approach / logic:

Significance of impact = Intensity of impact + Duration (temporal aspect) + extent (spatial aspect),

where

Intensity of impact = Magnitude of effect + Receptor value,

where

Magnitude of effect - the magnitude of effect assesses the extent to which the structural and functional characteristics of the component are adversely affected (High: where the effect results in the loss or modification of the whole or the main characteristics of the receptor, to the extent that it risks losing its identity: for example, destruction of fertile layer of soil, irremediably eroded (washed away) by devastatingly powerful runoff; Moderate: when the effect results in the loss or modification of certain characteristics of the affected component, thus reducing its qualities though without compromising its identity: for example, wind erosion of soil; Low: when the effect does not significantly alter the characteristics of the affected element, so it retains its identity and its qualities are not excessively degraded: for example, dust being deposited on plants affecting its photosynthetic function until the first rain which will re-establish totally this function).

Receptor value - environmental/social value expresses the relative importance of an impact receptor. It is determined by considering the environmental and/or social value of the receptor as established by the regulations or the judgement of the assessor or other specialists.

Duration - Duration indicates the temporal aspect of the impact. It assesses, in relative terms, how long the impact will interact with the receiving environment. The terms "long-", "medium-" and "short-term" are used to describe this period of time.

Extent - Extent refers to the spatial aspect of the impact. For practical reasons, as with duration (the temporal aspect), we need to categorize this dimension. Three levels of extent are thus defined: Regional, Local, and Limited.

| Duration | Extent | Intensity | | |
|-------------|----------|-----------|----------|-----|
| | | High | Moderate | Low |
| Long-term | Regional | H | H | M |
| Long-term | Local | H | M | L |
| Long-term | Limited | M | M | L |
| Medium-term | Regional | H | M | M |

| Duration | Extent | Intensity | | |
|-------------|----------|-----------|----------|-----|
| | | High | Moderate | Low |
| Medium-term | Local | H | M | L |
| Medium-term | Limited | M | L | L |
| Short-term | National | H | M | M |
| Short-term | Regional | M | L | L |
| Short-term | Local | M | L | L |

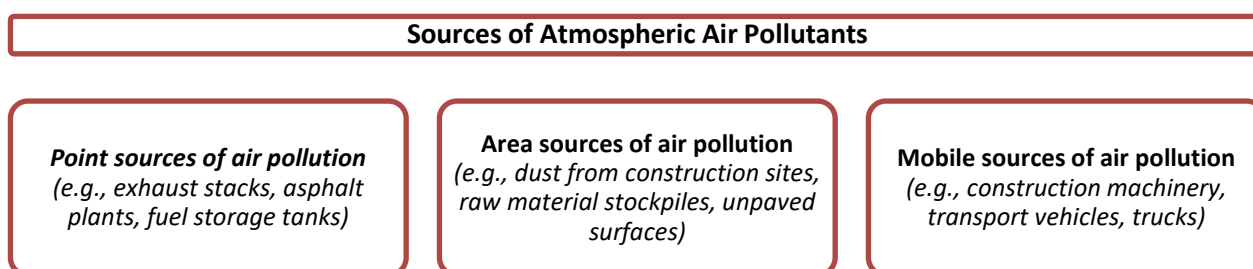
Table8-1: Semi-quantitative assessment grid

Colour key: Yellow = Low (L), Orange = Moderate (M), Red = High (H)

Significance is ultimately classified as High, Moderate, or Low according to this matrix. Where the likelihood of an impact is uncertain, it is qualified as Certain, Probable, or Possible.

8.2. Physical environment

8.2.1. Air and Climate Change

**Figure 8-1: Sources of atmospheric air pollution**

Construction phase

Air emissions are expected to arise from activities associated with the reconstruction and rehabilitation of the existing 70.9 km M3 Road section. The primary sources of air pollution will include:

- Mechanically generated dust, resulting from earthworks (excavation, grading, soil compaction, and material handling), traffic on unpaved and dusty surfaces, and wind erosion from exposed areas;
- Combustion gases emitted by diesel-powered construction machinery and vehicles transporting materials, personnel, and waste;
- Fugitive emissions of volatile organic compounds (VOCs) during asphalt production and laying.

Mechanically generated dust typically consists of larger particles that tend to settle close to the source, usually within tens of meters through gravity deposition. Therefore, impacts will be localized and temporary, mainly affecting construction workers, nearby residents, and local vegetation.

The following emissions are anticipated:

- Dust emissions from clearing vegetation, excavation, loading and unloading of soil, aggregates, and construction waste;
- Exhaust gases containing NO_x, SO₂, CO, hydrocarbons, and particulate matter from machinery and heavy vehicles;
- Volatile emissions during asphalt application;

- Short-term dust release from wind action on exposed surfaces or stockpiles.

Air pollutants may cause temporary health effects for workers, such as respiratory irritation, and may also reduce photosynthetic activity of nearby vegetation through dust deposition. However, impacts are expected to be short-term and reversible, limited to the immediate construction zone.

Although the Project will temporarily increase greenhouse gas (GHG) emissions during the construction phase, mainly due to fuel consumption by machinery and vehicles, the overall contribution to climate change is expected to be negligible at the regional scale.

In the long term, the rehabilitation of the M3 Road is expected to improve traffic flow and reduce vehicle idling time, leading to lower emissions of CO₂, NO_x, and particulate matter compared to the current deteriorated road conditions. The Project therefore contributes to a more energy-efficient and sustainable transport corridor.

Operation and maintenance

During the operational phase, air emissions will primarily originate from the vehicles traveling along the rehabilitated M3 Road section. Compared to the current situation, overall emissions to air are expected to decrease, as the improved road surface and optimized geometry will enhance traffic flow, reduce congestion, and limit idling time of vehicles. These factors will lead to more efficient fuel combustion and lower emissions of nitrogen oxides (NO_x), carbon monoxide (CO), hydrocarbons (HC), and particulate matter (PM).

Over the medium to long term, a gradual increase in traffic volumes may result in a proportional rise in vehicle emissions. However, this trend is expected to be offset by ongoing improvements in vehicle technology, fuel quality, and enforcement of national and EU-aligned emission standards. Therefore, the Project's contribution to air pollution during operation is expected to remain limited and within regulatory thresholds.

The Environmental and Social Action Plan (ESAP) requires periodic air quality monitoring at representative points along the road corridor during the first years of operation. The purpose of monitoring is to verify compliance with national air quality standards and to confirm that the Project does not contribute to deterioration of ambient air quality in adjacent communities.

| Phase | Impact | Intensity | Duration | Extend | Significance of impact |
|----------|--|-----------|------------|--------|------------------------|
| C | Dust emissions from construction activities | High | Short term | Local | Moderate |
| C | Emissions of air pollutants associated with construction-related traffic | Moderate | Short term | Local | Low |
| O | Dust emissions associated with road traffic | Low | Long term | Local | Low |
| O | Air emissions generated during operational traffic flow | Moderate | Long-term | Local | Moderate |

Table8-2: Assessment matrix of potential impacts on air quality

8.2.2. Soil

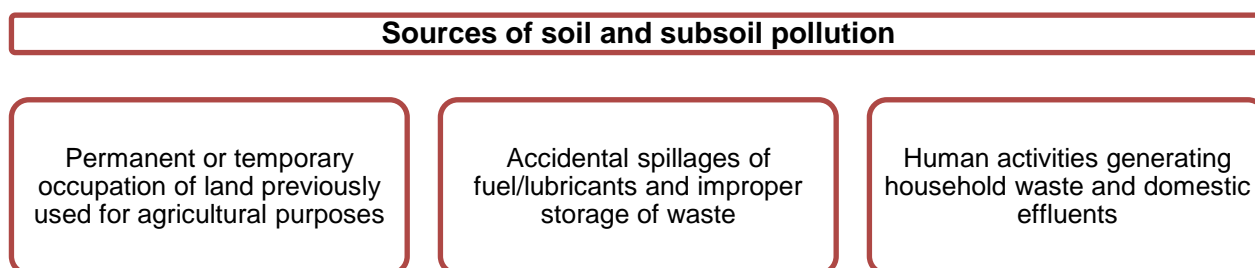


Figure 8-2: Sources of soil and subsoil pollution

The impact of the Project on the soil consists of the alienation of land for permanent use as well as for temporary use for short-term use, with subsequent recultivation. The soils characteristic of the area are carbonate chernozem and ordinary chernozem. The mechanical consistency of the soils is sandy loam. According to its character and moisture content, the soil is type I.

The impact of the object on the soil is expressed in the possibility of soil erosion as a result of subsidence caused by runoff from water drainage structures (culverts). Soil in excavated areas can erode and be carried by landslides; excavated materials can be washed away or blown away if not covered. In addition, soil can be contaminated by accidental spills of products oil and hazardous chemicals used in construction zones.

The location and activity of site organizations and temporary construction sites can damage the environment in the immediate vicinity and contaminate the surroundings with waste.

The identified forms of impact on the soil during the construction period may include:

- removal of the topsoil layer and the creation of an artificial profile as a result of works performed within the road embankment area;
- occurrence of erosion processes;
- loss of natural characteristics of the fertile soil layer due to improper storage of excavated material in soil stockpiles;
- removal or degradation of the fertile soil layer in areas where new service roads or diversions of existing access roads will be constructed;
- isolation of certain soil surfaces from natural ecological circuits through concreting;
- accidental discharges of substances/compounds directly onto the soil;
- uncontrolled storage of waste, construction materials, or technological residues;
- potential leaks from wastewater collection systems;
- qualitative modifications of the soil under the influence of pollutants present in the air.

The technical reclamation phase provides for measures to protect the topsoil. The storage of the stripped topsoil resulting from earthworks (embankment and excavation works) will take place along the route, on the sections foreseen for this type of activity.

The technical recovery phase includes the leveling (ensuring rainwater drainage) of the storage areas for the topsoil and ensuring adequate distances for the operation of road machinery and mechanisms on arable lands.

The stripped topsoil will be used for finishing the embankment slopes and the unpaved shoulders, while the remaining soil will be distributed over adjacent arable lands with proper leveling.

The impact on the soil **during the operation period** is not significant because the areas permanently occupied by the works represent a very small percentage of the analyzed area, and all the areas temporarily affected

by the works will be restored to their original state after the completion of the construction works with the original excavated fertile soil.

During the operation phase of the road, the impact on the soil is generally limited and localized, but certain effects may still occur if proper maintenance and mitigation measures are not implemented.

The main potential impacts on the soil during road operation are:

- Soil erosion – caused by rainwater runoff from road surfaces, slopes, and drainage structures if they are not properly maintained;
- Pollution risks – due to accidental leaks of fuel, lubricants, or other hazardous substances from vehicles or maintenance equipment;

| Phase | Impact | Intensity | Duration | Extend | Significance of impact |
|----------|--|-----------|-------------|--------|------------------------|
| C | Accidental losses of fuel and lubricants | Low | Short term | Local | Moderate |
| C | Non-compliant management of construction materials and waste | Moderate | Short term | Local | Low |
| C | Loss of fertile soil quality due to the organization of the construction site | High | Short term | Local | Moderate |
| C | Increased vulnerability to erosion due to excavation and creation of foundation pits | High | Short term | Local | Moderate |
| C | Temporary loss of topsoil for the borrow pit and access road; risk of erosion; alteration of the local relief. | Moderate | Medium-term | Local | Moderate |
| O | Soil erosion caused by rainwater runoff | Low | Short term | Local | Low |
| O | Accidental losses of fuel and lubricants | Low | Short term | Local | Low |

Table8-3: Assessment matrix of potential impacts on soil/subsoil

8.2.3. Water resources

Water pollution represents a significant environmental issue throughout the country. The main sources of water pollution are both *point* and *non-point (diffuse)* sources. Municipal and industrial wastewater discharges are generally identified and monitored, and their pollutant loads can be quantified. However, pollution from households not connected to sewerage systems, agricultural lands, and accidental or occasional discharges remains unorganized and therefore difficult to monitor and control.

According to the Environmental Protection Inspectorate, other sources — such as runoff from industrial areas and landfills — can be equally or even more harmful to the environment than point sources. Another major contributor to water pollution is the discharge of untreated domestic wastewater, representing approximately 65% of households in the Republic of Moldova.

Construction Phase

The project does not foresee other sources of water extraction for these purposes. The overall water demand during construction is expected to be low, with water mainly required for dust suppression and domestic use. Consequently, wastewater generation on-site will be limited to domestic effluents only.

Technical water will be procured from the water supply operator of the nearby communities only after

coordination with the local public authorities (APL) to ensure that sufficient water remains available for residents and to avoid any potential negative impact on local water supply. Drinking water for workers will be provided in bottled form, sourced from specialized commercial suppliers.

Due to the fact that potential sources of surface and groundwater pollution during the execution of the works may occur only in exceptional situations — such as machinery malfunction or improper management of raw materials — the probability of water pollution impacts is considered low. The potential impacts on surface waters are expected to be limited and short-term, while no impacts on groundwater are anticipated.

Potential sources of surface and groundwater pollution during the construction phase include:

- improper storage of raw materials;
- oil and fuel leaks from machinery and vehicles;
- improper storage of construction waste that could contaminate the water environment and alter its physico-chemical characteristics;
- inadequate placement or damage of sanitary facilities at construction sites;
- local modifications of drainage conditions caused by excavation or installation works.

Given that the project involves several river crossings, possible pollution impacts may arise from:

- accumulation of contaminated soil materials that can lead to sedimentation;
- direct discharge of pollutants into the river course;
- erosion-induced transport of soil particles, contaminated or not, into the water body.

Overall, most potential pollution sources during construction are accidental and exceptional in nature, with a low probability of occurrence, typically resulting from equipment failure or poor material and waste management.

Operation Phase

During operation, the main potential impact on water resources is related to the management of stormwater and the risk of accidental leaks from vehicles or equipment. The project includes a **rainwater drainage system** designed to collect runoff from the carriageway and discharge it onto the relief near the road, reducing the risk of uncontrolled water flow and erosion.

| Phase | Impact | Intensity | Duration | Extent | Significance of Impact |
|-------|--|-----------|-------------|---------|------------------------|
| C | Oil and fuel leaks from machinery operation | Moderate | Short-term | Limited | Low |
| C | Use of water resources for construction activities, potentially competing with local water supply for communities especially in Porumbrei and Giurgiulești | Low | Medium-term | Local | Low |
| C | Water pollution due to improper management of waste and wastewater | Moderate | Short-term | Local | Moderate |
| O | Oil and fuel leaks from transport and maintenance equipment | Low | Medium-term | Local | Low |

Table8-4: Assessment matrix of potential impacts on water

With the implementation of standard good construction practices and appropriate operation and maintenance measures, no significant adverse impacts on surface or groundwater resources are anticipated during either the construction or operation phases of the Project.

8.2.4. Noise and vibration

During the preparation of the ESIA study, in the period February–March 2026, the experts of GEOSUD SRL (Romania) prepared four reports regarding the calculation and propagation of noise during both the construction and operation phases for the Project on Route 2, for each lot individually:

- Lot 1 – Chişinău – Porumbrei section
- Lot 2 – Porumbrei – Cimişlia section
- Lot 3 – Cimişlia – Comrat section
- Lot 4 – connecting road between the Giurgiuleşti – Reni and Giurgiuleşti – Galaţi border crossing points
- Lot 4 – Giurgiuleşti bypass road section

These reports enabled the assessment of noise levels and their impact on the environment and sensitive receptors along the entire corridor.

8.2.4.1. Acoustic Assessment and Modelling Methodology

For the simulation of noise propagation, the high-precision software SoundPLAN 9.0 was used. The modelling applied the European CNOSSOS-EU method, in accordance with Regulation (EU) 2015/996 (2015/2021 versions), ensuring compliance with the requirements of Directive 2002/49/EC.

The modelling process followed a rigorous 5-step methodology:

- Definition of objectives: Identification of sensitive receptors and establishment of compliance limits in accordance with applicable standards.
- Input data collection: Integration of the Digital Elevation Model (DEM), noise sources (construction equipment and forecast traffic volumes), and ground absorption characteristics.
- 3D model configuration: Spatial reconstruction of the M3 route, the built environment, and topographical barriers.
- Calibration and sensitivity analysis: Verification of model accuracy by comparison with field measurements and analysis of Δ dB variations to validate data robustness.
- Simulation and generation of thematic maps: Production of noise contour maps (isophones) for spatial impact visualization. The technical calculation parameters included a receptor height of 1.5 metres above ground level and a conservative design speed of 110 km/h, reflecting a “worst-case” scenario.

8.2.4.2. Baseline Situation

The monitoring of existing noise levels was carried out using Class 1 sound level meters (Brüel & Kjær 2245), duly calibrated. The results of the monitoring points (Lot 1) are summarized in Chapter 6.2.

8.2.4.3. Impact Assessment: “Worst-Case” Scenario

Construction Phase

Reducing noise levels associated with construction activities carried out in the vicinity of residential areas or protected natural sites represents a key priority. Typical works include the operation of heavy machinery, excavation and grading, earthworks execution, material transport, laying of road layers, asphalt and concrete

works, installation of drainage systems, relocation of existing utilities, as well as installation of road signage and safety systems.

These activities generate additional noise sources in the surrounding environment, potentially increasing acoustic levels in adjacent areas and affecting both local communities and construction personnel. The main sources of noise and vibration during the construction phase include:

- operation of machinery used for site preparation and land development (excavators, bulldozers, front loaders, compactors, vibrating plates, graders, cranes, dump trucks, concrete mixers, trucks, water tankers, generators, etc.);
- use of transport vehicles for material supply and removal of waste or excess excavated soil;
- manual and mechanized activities generating noise (digging, cutting, handling, loading and unloading of materials).

The assessment and control of noise during this phase are necessary to limit temporary effects on sensitive receptors and to reduce acoustic discomfort.

The acoustic impact during the construction phase is characterized by intense but temporary noise emissions. Due to the dynamic and uneven distribution of equipment (excavators, bulldozers, concrete mixers) within the working corridor, these were modelled as area sources. This approach ensures a conservative representation of the active work front. A potential exceedance of legal thresholds has been identified at distances of several hundred metres in the localities of Băcioi, Străisteni, Răzeni, Porumbrei, Ciucur Mingir and Giurgiulești.

The generated noise maps illustrate the spatial distribution of estimated acoustic levels for the analysed scenarios, highlighting areas where the influence of noise sources is more pronounced. Modelling results indicate that maximum noise levels occur in the immediate vicinity of the sources (active work fronts, construction sites, or operating road infrastructure), with values gradually decreasing as distance increases due to sound propagation and attenuation effects.

▪ **Lot 1**

The analysis of noise contour lines indicates that levels exceeding regulatory thresholds may be experienced at distances of several hundred metres from the site boundary/construction corridor, depending on local propagation conditions (topography, natural or artificial barriers, built environment characteristics). Potentially affected are sensitive receptors in Băcioi commune, located within the area bounded by Chișinăului Street to the north-east, Burebista Street to the east and Independenței Street to the south, as well as sensitive receptors in the eastern part of Străisteni village and in the eastern part of Răzeni commune, up to Independenței Street to the west and Biruinței Street to the south.

▪ **Lot 2**

The analysis of noise contour lines indicates that levels exceeding regulatory thresholds may be experienced at distances of several hundred metres from the site boundary/construction corridor, depending on local propagation conditions. Potentially affected are sensitive receptors in Porumbrei commune, located on the eastern side of Mitropolitul Street (including Alexei Mateevici, Doina and Ion Aledea Teodorovici streets), the southern part of Muncii Street up to Tineretului Street, as well as residents on the northern side of the Grădiște – Coștangalia local road within Coștangalia commune, particularly for evening works (considering a +5 dB(A) penalty for this period).

Additionally, residents on Ion Seceriu Street in the northern part of Cimişlia town and Ştefan cel Mare şi Sfânt Boulevard (R3) may be affected, with potential exceedances of legal limit values at façade level and at the boundary of the Cimişlia vocational school.

- **Lot 3**

The analysis of noise contour lines indicates that levels exceeding regulatory thresholds may be experienced up to a maximum distance of 250 metres from the road footprint/expropriation corridor associated with the rehabilitation works of the M3 road, depending on local propagation conditions. Potentially affected are sensitive receptors in Ciucur-Mingir commune, located east of Ştefan cel Mare şi Sfânt Street, between Tineretului Street to the north and Ion Ghilan Street to the south.

- **Lot 4 (Giurgiuleşti Bypass)**

In assessing the acoustic impact on biodiversity, the spatial analysis was carried out by overlaying the modelled noise contours with the boundaries of EMERALD network sites relevant to the project's area of influence.

In the absence of detailed public spatial datasets regarding the exact intra-site distribution of each species of conservation interest, the official boundaries of EMERALD sites were used as reference spatial units for impact assessment. This approach is justified as EMERALD sites are designated under the Bern Convention for the conservation of species and habitats of community interest, and their boundaries reflect areas important for maintaining favourable conservation status.

Regarding impacts on residential areas, mixed-use zones, protected areas of public institutions, and quiet areas (green spaces, parks, gardens, etc.), it is noted that no such zones are identified in the immediate vicinity of the project site.

- **Lot 4 (M3 – M3.1)**

For the construction phase of the project “Rehabilitation of the M3 road Chişinău – Comrat – Giurgiuleşti – border with Romania, km 211.98 – 213.69 and M3.1 Giurgiuleşti – border with Ukraine, km 0.0 – 0.65 (connecting road to the Giurgiuleşti – Reni and Giurgiuleşti – Galaţi border crossing points)”, based on the relevant input data used for noise propagation modelling, it is estimated that exceedances of maximum permissible noise levels may occur at certain sensitive receptors in Giurgiuleşti commune.

Potentially affected receptors include residents located near the intersection at the south-western end of C. Apărece Street, as well as those on Plotnivov, Sportivă and Dunărea streets. Additional receptors may be affected in the eastern part of the intersection between Plotnivov and Dunărea streets, along Ion Creangă Street up to its intersection with Sportivă Street, and those located opposite the customs point, on its southern side.

These estimates represent a 24-hour “worst-case” scenario. Under real construction conditions, due to the mobile and discontinuous nature of activities and the segmentation of work fronts, the temporal and spatial extent of exceedances is typically lower. Furthermore, the use of mobile noise barriers during construction, as recommended in this report, will provide protection for sensitive receptors by reducing noise propagation behind the barriers through screening and diffraction effects.

Operation Phase (2030 Horizon)

The long-term impact is driven by tyre–road interaction and engine emissions at cruising speeds. The analysis

considers the forecast traffic volumes for the year 2030, using the Lden and Lnight indicators.

Affected Localities

Areas where exceedances of the maximum permissible values are estimated (in the absence of mitigation measures) include:

- Băcioi: Receptors located on Chişinăului, Burebista and Independenţei streets.
- Răzeni: Area of Independenţei and Biruinţei streets.
- Străisteni: Eastern sector adjacent to the road.
- Porumbrei, Ciucur-Mingir and Giurgiuleşti.

Impactul asupra Biodiversităţii (Situri EMERALD)

The assessment applied critical thresholds based on the physiological sensitivity of the taxonomic classes identified in the field:

| Taxonomic Class | Critical Threshold dB(A) |
|--------------------------------------|--------------------------|
| Birds (Aves) / Amphibians (Amphibia) | 60 |
| Reptiles / Mammals / Invertebrates | 70 |
| Fish (Pisces) | 90 |

Table 8-5: Critical thresholds

The areas estimated to be affected within the EMERALD sites:

| Lot | EMERALD Site | Construction Area (ha) | Phase | Operation Phase Area (ha) |
|-----------------------------|---------------------------------------|------------------------|-------|---|
| Lot 1 | MD0000022 Cărbuna | 0,25 | | 0 |
| Lot 1 | MD0000026 Pădurea Moleşti-Rezeni | 0,028 – 3,15 | | 0,73 |
| Lot 3 | MD0000016 Stepa Bugeacului | 12-35 | | 13 – 42 |
| Lot 4 (Giurgiuleşti Bypass) | MD0000012 Lacurile Prutului de Jos | 0,624 - 2,576 | | 0,008 - 0,234 |
| Lot 4 (M3 – M3.1) | MD0000012 Lacurile Prutului de Jos | 0,420 - 1,307 | | 0,285 - 0,846 0,056 - 0,402- Congested Traffic Scenario (Border Crossing Area) |

Table 8-6: Exposure of Species of Conservation Interest to Noise Generated During the Construction and Operation Phases of the Project

8.2.4.4. Mitigation Measures and Technical Solutions

The main technical solution proposed consists of installing Forster 20 type noise-absorbing panels (wood), with a height of 4 metres. These panels exhibit a predominantly absorptive behaviour, which is essential for reducing sound reflections toward opposing receptors.

Placement of Mobile Panels (Construction Phase)

Based on the project analysis, it is recommended to use mobile noise-absorbing panels in active work fronts, in the immediate vicinity of noise-generating activities, to protect species of conservation interest within the EMERALD sites, as well as sensitive receptors, particularly residential buildings located close to the project site.

It is recommended that the noise-absorbing panels have a minimum height of 4 metres. The table below

presents the recommended locations for the deployment of mobile noise-absorbing panels.

| Sector (km start- km end) | Position Relative to Road |
|---|---|
| Lot 1 | |
| km 2+565 - 4+310 | Left |
| km 4+480 - 6+015 | Right |
| km 4+620 - 4+975 | Left |
| km 18+015 - 18+550 | Left |
| km 20+700 - 23+500 | Right |
| km 20+915 - 22+975 | Left |
| km 27+910 - 29+065 | Right |
| km 29+050 - 29+230 | Left |
| km 29+975 - 30+540 | Left |
| km 31+665 - 32+325 | Left |
| Lot 2 | |
| km 0+000 – 1+625 | Right |
| km 18+500 – 18+975 | left and perimeter, western part of the road junction |
| Lot 3 | |
| km 0+380 – 0+860 | Right |
| km 5+555 – 9+790 | Left |
| km 6+490 – 6+990 | Right |
| km 8+065 – 11+987 | Right |
| Lot 4 (Giurgiulești Bypass) | |
| western part of the roundabout intersection | "Lacurile Prutul de Jos" area |
| Lot 4 (M3 – M3.1) | |
| 212+000 (M3) – intersection with M3 Road (Chișinău – Giurgiulești, bypassing the villages Slobozia, Cișlița-Prut and Giurgiulești) – 213+690 (M3) | Right |
| 213+035 (M3) – 212+445 (M3), entrance area to the Giurgiulești Free International Port (PILG) | Left |

Table 8-7: Recommended locations for the deployment of mobile noise-absorbing panels

Placement of Fixed Panels (Operation Phase)

Considering the layout and the presence of sensitive receptors near the road alignment, it is recommended to install noise-absorbing panels with a height of 4 metres.

In the conducted models and simulations, Forster 20 type noise-absorbing panels made of wood were used. This type of panel exhibits a predominantly absorptive behavior, with acoustic absorption coefficients specific to treated wooden panels designed for road noise protection applications.

The sections where panel installation is required are presented in the table below.

| Sector (km start- km end) | Position Relative to Road |
|---------------------------|---------------------------|
| Lot 1 | |
| km 2+565 - 4+980 | Left |
| km 4+480 - 6+015 | Right |
| km 18+015 - 18+550 | Left |
| km 20+700 - 23+500 | Right |
| km 20+915 - 22+975 | Left |
| km 27+910 - 29+065 | Right |
| km 29+050 - 29+230 | Left |
| km 30+130 - 30+375 | Left |
| km 31+665 - 32+155 | Left |
| Lot 2 | |
| km 0+000 1+625 | Left |
| km 18+500 - 18+975 | Left |
| km 18+885 – 18+975 | Right |
| Lot 3 | |
| 0+380 – 0+860 | Right |
| 5+555 – 9+790 | Left |
| 6+490 – 6+990 | Right |
| 8+065 – 11+987 | Right |

| | |
|---|-------------------------------|
| Lot 4 (Giurgiuleşti Bypass) | |
| western part of the roundabout intersection | "Lacurile Prutul de Jos" area |
| Lot 4 (M3 – M3.1 | |
| 212+495 (M3) - 213+690 (M3) | Right |
| 213+035 (M3) - 213+690 (M3) | Left |

Table 8-8: Placement of Noise-Absorbing Panels for the Operation Phase of the Project

It should be noted that the current technical designs do not include noise-reduction barriers; therefore, any mitigation of operational noise relies primarily on maintaining appropriate speed limits, proper vehicle maintenance, and traffic management measures.

According to the conclusions presented in the ESIA study, in the chapter on noise impact estimation and modeling, it is recommended that the detailed technical designs include the installation of noise-absorbing panels in sensitive areas to reduce noise levels affecting receptors.

8.2.4.5. Matrix for Assessing the Potential Impact of Noise and Vibrations

| Phase | Impact | Intensity | Duration | Extent | Significance of Impact |
|-------|--|-----------|-------------|---------|------------------------|
| C | Construction noise from machinery (excavators, bulldozers, compressors, vibrators, diesel trucks, asphalt milling machines) | Hight | Medium-term | Limited | Moderate |
| C | Temporary noise from material transport along haulage roads | Moderate | Medium-term | Local | Moderate |
| C | Potential impact on sensitive receptors (schools, hospitals, etc.) | Hight | Short-term | Limited | Moderate |
| O | Noise levels from automobile transport is expected to be reduced due to improved road surface but increase is also possible due to traffic levels growth. (Sensitive area in Băcioi, Răzeni, Străisteni, Porumbrei, Ciucur Mingir și Giurgiuleşti) | Moderate | Long-term | Local | Moderate |

Table8-9: Assessment matrix of potential impacts on noise and vibration

8.2.5. Waste

Road construction and reconstruction activities generate a wide variety of waste, originating both from technological processes (asphalt milling, demolition of existing structures, excavations) and from auxiliary site activities (packaging, material residues, municipal-type waste). Proper management of this waste is an essential component of environmental protection and compliance with national and international legislation in the field.

The following section presents the main types of waste generated during road reconstruction works, as well as the specific collection, recovery, or disposal measures that must be implemented within the project:

- Inert construction and demolition waste: milled asphalt, broken concrete, gravel, quarry materials, excavated soil, curbs;
- Metal waste: steel reinforcements, scrap metal structures, cables;
- Wood waste: used formwork, damaged pallets, temporary wooden elements;
- Packaging waste: cement bags, plastic films, cardboard boxes, containers;
- Hazardous waste: used oils, oil and fuel filters, rags contaminated with petroleum products, paints, adhesives, chemical solutions, tar-containing asphalt (if present);

- Municipal and household-type waste: food residues, packaging from site areas, used protective equipment;
- Green/vegetal waste: vegetation residues from slope clearance and site cleaning.

General Principles of Waste Management:

- Establishment of temporary storage areas on-site, clearly marked and designated.
- Application of the “3R” principle – Reduce, Reuse, Recycle.
- Compliance with national legislation and European waste management regulations.
- Training of personnel for proper handling of waste, particularly hazardous waste.
- Continuous monitoring of waste quantities and reporting to the competent authorities.

8.2.6. Landscape

During the construction phase, temporary visual impacts will occur due to the presence of construction machinery, material storage areas, and excavation works. These impacts are localised and reversible, disappearing after the completion of works.

In the operational phase, the visual quality of the road will be improved by the uniformity of pavement, proper drainage, and the introduction of landscaping measures such as grassing of slopes and replanting of trees where feasible. The project will also contribute to an enhanced perception of order and safety along the corridor.

8.3. Biodiversity

The present road alignments cross some sensitive areas for biodiversity, such as: Emerald sites, NPAs, including wetlands and forest ecosystem.

Due to the risk of the presence of mammal species, especially *Felis silvestris*, *Lutra lutra*, others, it is recommended to the Constructor will hire an environmental/biodiversity specialist who will carry out pre-construction monitoring to estimate in particular the adjacent forest sectors (Rezeni, Carbuna), the locations of bridges and the Prut River before construction. If otters or other mammals are found, then further advice should be sought from a qualified zoologist at the Institute of Zoology (USM). The zoologist can also advise on the remedial actions required, according the requirements from environmental/biodiversity legislation (Law on animal kingdom no.439/1997, Law no. 325/2005 on the Red Book of the Republic of Moldova, Law No. 1538/1998 on the fund of natural areas protected by the state, etc.).

The data obtained at the detailed design stage of monitoring the animals (birds) species in the Road construction areas have established the following possible risks:

- At the Road construction and operational stages, the birds' habitats from the fields of the protected areas (NPA, Emerald network sites, forestry ecosystems) adjacent to the Road operational zone, will not be affected directly. No birds' species of conservative importance will be affected by loss of nesting habitats. The loss of feeding/resting habitats will be minimal, and the associated risks are very low.

- The habitats of the Emerald sites not along the M3 Road (Lots 1,3 and) will not be influenced with the risk of degradation or change of the areas of the target animal and plant species, with protection status at national, regional and local level, considering that only the rehabilitation works of the road will be organized.
- With reference to Lot 2 of the road, there are no Emerald sites in this area, but neither are their important habitats.

Following the analysis of the impact on species, their habitats, on natural ecosystems, especially forest, aquatic etc. in the sensitive areas of the Project area in the area of the Emerald Sites "Molesti-Rezeni", "Carbuna", "Bugeac Steppes" and "Lakes of the Law Prut" and NPAs the main types of impact were established for the stages of the Project, its duration and intensity – Table 5-5.

| Phase | Impact | Intensity | Duration | Extent | Significance of Impact |
|-------|---|-----------|-------------|---------|------------------------|
| C | Impact on the Emerald Site and NPA | Moderate | Medium-term | Limited | Moderate |
| C | Impact on forest ecosystems and flora | Moderate | Medium-term | Local | Moderate |
| C | Impact on fauna | Moderate | Medium-term | Limited | Moderate |
| C | Impact on aquatic fauna (birds, fish other) | Moderate | Medium-term | Limited | Moderate |
| O | Impact on the Emerald Site and NPA | Low | Long-term | Limited | Low |
| O | Impact on forest ecosystems and flora | Low | Long-term | Local | Low |
| O | Impact on fauna | Low | Long-term | Limited | Low |
| O | Impact on aquatic fauna (birds, fish other) | Low | Long-term | Limited | Low |

Table8-10: Assessment matrix of potential impacts on biodiversity

In order to avoid the potential impact on sensitive areas, in the pre-construction period, it is important that the Constructor considers not only the main infrastructure itself, but also all related installations and facilities, such as temporary access roads, storage facilities and equipment, construction compounds, concrete foundations, temporarily installed cables, residues and spaces for depositing excavated earth, etc., to avoid as much as possible damage to the habitats of plants and animals, including birds.

Construction Phase

The more potential impacts for biodiversity that may occur during construction of Road phase include:

- Soil disturbance can affect the habitats of flora and fauna
- Dust and exhaust emissions from construction plant, vehicles and equipment
- Disturbance and/or destruction of small shrubs and bushes
- Noise, vibrations, can create a disturbance factor for wildlife due to noise pollution, but also a fragmentation effect on the migration routes of wild animals
- Air pollution due to equipment and vehicles can affect the habitats of flora and fauna

The implementation of the project will have minimal impact on the species of flora and fauna in the forests of the Forest Fund existing in the area of the studied sector. Deforestation of trees may be necessary in places, but there will be a small number of common species, not marked by shrubs, which have grown spontaneously along the way.

In this regard, the Contractor will be responsible for reducing any impact on species, especially fauna and flora, at the construction stage. In particular, a permanent assessment of the impact of deforestation and destruction of accidental vegetation, direct or indirect, unplanned due to the activities carried out will be carried out.

All deforestation will be carried out only in the road protection strips, by assessing the wood mass it will be necessary to obtain the authorization from the Environment Agency, according to the legal requirements. The contractor will be responsible for any deforestation and illegal destruction of vegetation, direct or indirect, unplanned due to the activities carried out. For any such actions, fines and damage will be applied by the Environmental Protection Inspectorate, according to the legal requirements.

As for the fauna, it is important to note that the project will not cause loss of valuable habitat. Of course, the M3 road represents a barrier to the free migration of wildlife, fragmenting the natural habitat of the forests around the road. This is crucial for species migrating or moving in search of food, mates or new territories. Collisions between animals and vehicles on the M3 road exist, not so often, but they represent a danger to both wildlife and the safety of drivers and passengers. The identified bridges, which can be used by animals as ecoducts, would significantly reduce the number of these collisions, thus protect animals and preventing road accidents.

The reconstruction of existing bridges can serve as ecoducts and would have several significant positive effects, both for wildlife and for road safety and biodiversity conservation.

Operational phase

The main risks to biodiversity and habitats identified during the operation period are identified for sensitive areas of the Emerald sites, NPAs, forests, the Prut River and are specific: increased vehicle traffic, noise, vibrations, can become a factor in disturbing wildlife due to noise and air pollution. In addition, dust and gas pollution can increase in the areas of the 150-meter impact corridor along the road.

At the same time, it is important mentioning that, on the renovated road, vehicles travel at a stable speed, without frequent stops in the deteriorated places of the road, as it is currently, which will considerably reduce air pollution along the road with less influence on natural habitats.

It is also expected that the anthropogenic factor on the forests of the Emerald Sites and the forest fund adjacent to the road will increase, thus increasing the number of short-term visitors, sports and camping rest and people who spontaneously visit the forests, which will require increased monitoring by forestry entities on the risks that can be brought to the forest, flora and fauna in them.

Another factor of possible impact on biodiversity may be the repair, and maintenance works of the roads, aspects that will also require increased monitoring in the areas of the Emerald Sites, ANPS and the forest fund adjacent to the road.

At the same time, it is expected that the successful implementation of the measures proposed by ESIA for the M3 Road Rehabilitation Project, in accordance with national and international environmental standards, will bring several benefits, strengthening the ecological network along the Emerald Sites, thus contributing to the protection and conservation of habitats and their biodiversity.

8.4. Socio-economic and health, safety and security risks and impacts

8.4.1. Land acquisition and economic displacement

Major social and economic impacts will have local impact during the construction phase and both local and regional impact during the operation phase and include the following:

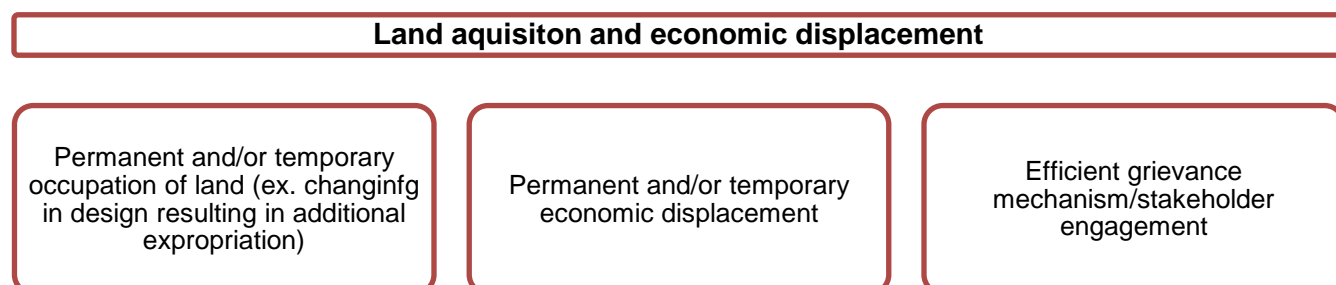


Figure 8-3: Land acquisition and economic displacement

The preferred concept at design stage involved rehabilitation and partial widening within the existing right-of-way, minimizing new land acquisition and avoiding sensitive habitats identified during baseline studies.

The Project has been developed with maximum utilization of land plots designated for the road operation. The Project in Lot 1, 2, 3, 4 - component connection between borders requires only minor land acquisition for minor realignment, excepting lot 4 bypass of Giurgiulești - new construction, which will require wider private land acquisition.

Lot 1 Airport I/C – Porumbrei. Lot 1 (Airport Chișinău – Porumbrei, 34.4 km) km 10+000 – 44+350 – rehabilitation:

All works remain within the existing Right-of-Way. No permanent land acquisition is required, temporarily occupied during construction, reconstruction and other works - missing, all reconstruction works are carried out within the limits of the existing road and related areas.

Lot 2 (Porumbrei – Cimișlia, 19 km) rehabilitation & widening of 19 km of road from 2 to 4 lanes. km 44+420 – 63+430 – rehabilitation/construction:

Total land allocated for construction in the Porumbrei–Cimișlia sector: 108,4526 ha, including: 64 public lands and 190 private lands for Lot 2 were acquired in Phase 1 of the road rehabilitation, 2019 (Bridge structures, culverts, engineering networks, and the roadbed are 95–100% complete). Compensation was paid. The total land use of the 254 acquired lands: 57 public lands intended for transport, electronic communications networks and mining. Destination category: 4 lands intended for construction and development; 11 gardens; 168 agricultural; 14 uncategorized. Phase 2 detailed design is currently not elaborated. *For M3 Lot 2, the project will carry out an independent audit, including an associated corrective action plan if needed, and will apply a risk-based approach where appropriate. A supplemental resettlement plan may be required.*

Lot 3 (Cimișlia – Comrat, 12 km) km 70+350 – 82+430 – rehabilitation:

Connection between two bypasses. No detailed design available. No new alignment or additional land acquisition is foreseen.

Lot 4 (Bypass road of Giurgiulești village, Cahul district, 3,85 km) (connection between M3 and R34) with parking area for freight transport – construction , Feasibility Study, Execution Design completed in

2024. Land acquisition impacts for bypass sector: Total: 59 private agricultural lands and 18 public lands (1 forest- fund land; 17 uncategorized)

Lot 4 M3/M3.1 (M3 road Chisinau – Comrat – Giurgiulesti – border with Romania, km 211.98 – 213.69 and the M3.1 (Giurgiulesti – border with Ukraine, km 0.0 – 0.65 (connection road of the Giurgiulesti - Reni and Giurgiulesti - Galati state border crossing points) – rehabilitation.

Land acquisition impacts for connection sector: 49 private lands and 20 public lands (based on available data) For M3.1. specifically: 9 private lands (of which 5 agricultural lands; 2 land intended for construction and development and 2 gardens); 7 indefinite ownership; 14 public lands (of which 3 land intended for construction and development; 1 agricultural; 1 special purpose land; 9 uncategorized).

At this stage, NRA is carrying out for **Lot 4** the complex of cadastral works (identification of private property, delimitation of public property, correction of errors made when assigning public property land, modification of cadastral plans, development of territorial organization projects, development of geometric plans, initiation and approval of real estate formation works).

Temporary land use: Temporarily land plots might be required at the construction stage to organize borrow pits, construction sites, storage areas, etc. Construction sites to be arranged in line with the requirements of state construction norms and will include areas for machinery parking, mechanical workshops, materials storage areas and personnel facilities. The exact location of the construction sites and their area will be defined within the construction Works Execution Plans, which will be developed by a Contractor(s) based on the Construction Management Plans and detailed design documentation after completion of the tendering process. The Project may also require some temporary land take for construction laydown areas, temporary storage of excavated materials/soil, cut trees etc.

Lot 4: Borrow Pit "Cișlița-Prut" is located on publicly owned land (plot no. 5415029) outside Cișlița-Prut village, Cahul district and outside inhabited zones, with no surface water sources in the vicinity. The total area of the land – 3,00 ha.

State lands will be used for establishment of construction camps, work sites borrow pits, access roads, etc. Private lands can be used only if no state land is available and with approval of NRA (no agricultural lands shall be used). The temporary use of lands shall be done in accordance with the provisions set in LARF (Land Acquisition and Resettlement Framework) – separate document to ESIA.

Temporary occupation of land for construction purposes must be compensated. Any unavoidable temporary use of private land must be compensated at full replacement cost and the land must be handed back after proper reinstatement to its original state.

RPF will include measures to address potential negative impacts related to land acquisition and economic displacement during Project implementation. Based on the information from NRA and visual observations during the site visit no buildings are expected to be demolished for the Project and no physical displacement is expected to occur.

Temporary/Permanent Economic displacement

The construction work may cause impacts to landowners, small businesses and shops on either side of the adverse roadway during construction, for example through temporary lack of access to businesses, to agricultural land from the roadway. The Contractor will need to provide for alternative access routes in advance

and create such facilities on site so that accessibility to the properties in question, including agricultural land, is always ensured. Early communication with those affected will be important in order to ease such temporary discomfort and to improve relations with the native population. No temporary economic or permanent economic displacement is foreseen for Lot 1-4. Permanent economic displacement is related to Lot 4.

NRA is carrying out the complex of cadastral works (identification of private property, delimitation of public property, correction of errors made when assigning public property land, modification of cadastral plans, development of territorial organization projects, development of geometric plans, initiation and approval of real estate formation works) - <https://achizitii.md/ro/public/tender/21476097/> . Evaluation for the purpose of determining the amount of compensation for land plots subject to expropriation is foreseen in 2026 after finalisation of cadastral works.

If design changes require additional land acquisition, the Project may face procedural delays, and implementation risks due to the time needed to complete the formal expropriation process.

Temporary land lease for contractor compounds and material storage areas will be secured through direct agreements with private or public landowners. Such arrangements fall under the scope of EBRD Performance Requirements and must be based on transparent, negotiated contracts between the contractor and the landowners. In the event that the alternative route option is not implemented as part of the road rehabilitation and expressway alignment works, temporary economic displacement may arise from temporary impediments to accessing private agricultural land.

Consultations and socio-economic baseline surveys conducted across all AoI localities confirm that **land acquisition impacts differ substantially between Lots**, reflecting the varied design maturity and historical land management processes along the M3 corridor. The findings also demonstrate that **economic displacement—both temporary and permanent—remains a central community concern**, primarily due to access restrictions, business connectivity, and agricultural mobility.

Baseline consultations indicate that **land acquisition has already been completed for sections previously rehabilitated under Phase 1 (notably Lot 2)**, where the expansion from two to four lanes required expropriation finalised in 2019.

Residents, farmers, and mayoralities from these areas consistently confirmed that: land acquisition processes were completed, compensations were paid, no outstanding grievances are currently reported, and current works will remain within the already acquired Right-of-Way (RoW).

In contrast, **Lot 1, Lot 3 and Lot 4** still present areas where *final confirmation of the RoW* is required, and **potential land acquisition cannot be excluded**, particularly where: access roads will need redesign, parallel agricultural routes must be developed, safety elements (accel/decel lanes, channelization, protection barriers) require additional footprint, and Lot 4 involves **a new bypass alignment**, where land acquisition will be necessary, as confirmed in meetings with Cîșlița-Prut and Giurgiulești. Across all Lots, respondents were informed that land acquisition will comply with Moldovan law and **EBRD PR5 requirements**—a message that communities acknowledged positively.

Permanent economic displacement may arise where project design changes impact the long-term viability of: **roadside businesses with direct M3 access, fuel stations, commercial depots, recreational facilities, and agricultural enterprises located adjacent to the RoW.**

Across Lots 1–3, businesses repeatedly highlighted that the M3 constitutes the main logistical artery for their operations. Stakeholders specifically expressed that *loss of direct access*—or conversion to restricted, controlled access—may: reduce customer flow and visibility, increase travel distance to reach grade-separated junctions, impose logistical delays for delivery vehicles, and generate additional operational costs. Particularly strong concerns came from: **Horești–Țipala business cluster**, **Selena–Bivol fruit storage operator in Sagaidacul Nou**, and **recreation and agro-tourism facilities along Lot 1**. While communities accept the safety rationale for limiting uncontrolled entries, they emphasized that **design changes must be consulted in advance**, and **functional alternative access routes** must be secured to avoid permanent livelihood losses. Communities expressed clear expectations for transparent processes, early communication, adequate alternative access routes, and livelihood restoration measures in accordance with EBRD PR5. Integrating these findings into project design and construction planning will be critical to minimizing adverse impacts and ensuring fair, inclusive outcomes for all affected land users and businesses.

Across all AoI settlements, residents and businesses anticipate that construction activities will generate **temporary constraints**, particularly relating to: blocked or limited access to commercial premises; reduced customer circulation; interruptions for roadside market areas; slower mobility for service vehicles; temporary loss of access to agricultural parcels; and reduced visibility and diminished marketability of roadside businesses during heavy construction months. Local entrepreneurs, particularly in Băcioi, Străisteni, Răzeni, Horești, Sagaidacul-Nou and Giurgiuiești, stressed the importance of: **early notice** of works, maintaining **continuous access** to shops, farms, storage facilities, and fuel stations, clear **Traffic Management Plans**, temporary access arrangements that do not redirect heavy machinery through settlement centres, and direct contractor–business communication channels.

Several farmers also highlighted operational losses associated with temporary detours or muddy unpaved alternative roads, particularly in rainy seasons (e.g., under the Răzeni bridge and L559.1 in Grădiște–Coștangalia), which may impact harvesting and transport schedules.

Across most Lots, **no residential physical displacement** is expected, as communities consistently confirmed that dwellings are located outside the RoW. No occupied residential structures requiring demolition have been reported to date.

| Phase | Impact | Intensity | Duration | Extent | Significance of Impact |
|-------|---------------------------------|-----------|-------------|---------|------------------------|
| C | Permanent land acquisition | Moderate | Long-term | Local | Moderate |
| C | Temporary land acquisition | Low | Medium-term | Local | Low |
| C | Temporary economic displacement | Moderate | Short-term | Local | Low |
| C | Permanent economic displacement | Moderate | Long-term | Limited | Moderate |

Table 8-11: Assessment matrix of land acquisition

8.4.2. Access and Traffic Restrictions

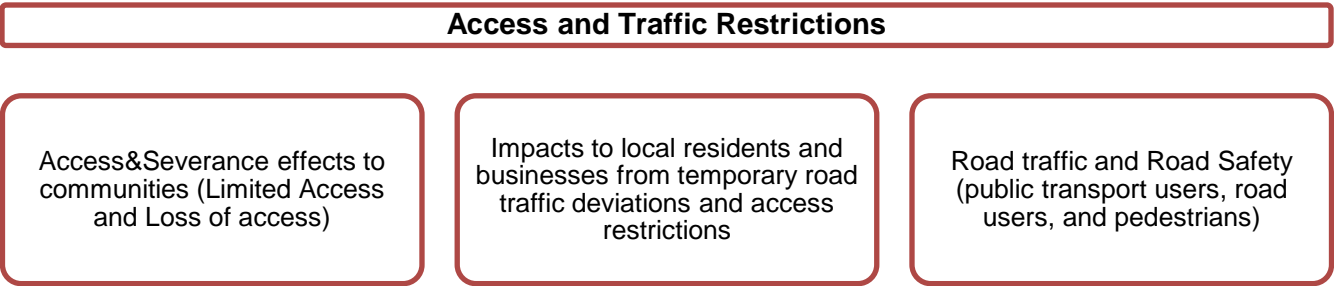


Figure 8-4: Access and Traffic Restrictions

The rehabilitation and upgrade of the M3 corridor will introduce controlled-access road standards and enhanced traffic safety measures, which will require **eliminating or restricting many existing direct private and informal accesses** to the road. Together with construction-phase mobility constraints, this represents one of the most significant socio-economic and safety-related impacts identified across all AoI localities. For **Lot 1**, community feedback during stakeholder engagement highlighted concerns regarding reduced or unsafe access to agricultural land plots. Agricultural mobility is among the strongest, most recurrent themes across all Lots. Farmers in Băcioi, Răzeni, Horești-Țipala, Porumbrei, Sagaidac, Coștangalia, and Grădiște, emphasized that: many plots lie on the opposite side of the M3; grade-separated crossings dedicated for agricultural machinery are essential (Lot 2 has already grade-separated intersections for agricultural machinery); existing secondary rural roads are often unpaved, fragmented, or unreliable; and agricultural machinery continues to use the M3 due to inadequate alternatives.

Across Lots 1–3, numerous households, farms, and businesses currently rely on **direct, informal, or unregulated accesses** to enter the M3 carriageway. Under the upgraded design: **all informal at-grade accesses will be closed**, private driveways directly connecting to the M3 will be eliminated, some commercial access points will be redesigned or consolidated, movements will be channelled through **grade-separated interchanges** and parallel/collector roads.

Any closure of informal crossings or direct at-grade accesses may create: additional travel time and fuel costs, operational inefficiencies during seasonal peaks, safety risks when alternative routes are unsuitable, and reduced access to orchards, vineyards, pastures, or arable plots. Farmers repeatedly requested: upgraded parallel routes, improved rural/agricultural access roads, safe turning and crossing opportunities, and coordinated planning of harvest seasons and construction works.

Community engagement confirms that while residents understand the road safety rationale, they anticipate that access closure may lead to: longer travel distances to reach the nearest interchange; reduced convenience for daily mobility; increased fuel and transport costs; greater time required for agricultural and business operations; loss of customer accessibility for roadside enterprises; reduced emergency access for households and elderly residents.

In several localities—especially **Băcioi (Străisteni area), Răzeni (km 28–31), Horești-Țipala, Porumbrei–Sagaidacul Nou, and Giurgiulești**—residents noted that closures must be accompanied by **functional alternative routes** to prevent long-term economic and mobility impacts.

Stakeholders currently using direct access points include: households with private driveways facing the M3; small shops, cafes, and market areas; agricultural storage and orchard access points; logistics and commercial operators (fuel stations, depots, warehouses); recreational facilities and agro-tourism businesses.

These concerns are consistent with the **Road Safety Audit findings**, which identified numerous locations where the current design either does not maintain existing access points or does not provide safe connection geometry.

Types of Access Loss and Risk Classification

Access loss during the Project lifecycle is categorised as:

Limited Access

- Road deterioration due to heavy trucks
- Temporary blockage of entry points
- Reduced access for public services (ambulance, fire brigade)
- Elevation changes between main road and side roads

Permanent Loss of Access

- Side roads closed without alternative routing
- Agricultural parcels left “orphaned”
- Access cut by drainage channels or fencing

1. Construction-Phase Access Restrictions

Impacts Identified on Lot 1 (Airport Interchange – Porumbrei)

Lot 1 involves full rehabilitation within the existing Right-of-Way, and no permanent land acquisition is expected. However, the RSA highlighted multiple inconsistencies between existing agricultural access points and those retained or omitted in the design, including:

- Access points shown in drawings but not kept in the final design
- Existing agricultural junctions not foreseen
- Commercial access points lacking deceleration lanes (critical at high-speed expressway sections)
- Side-road entries fenced off or blocked by drainage elements
- Culverts built but the corresponding access not provided
- Several areas where alternative routes exist but require detours

These design gaps create risks of temporary economic displacement, as land users may be unable to reach fields during key periods (planting, irrigation, harvest).

Impacts Identified on Lot 4 (Giurgiuleşti Bypass) and border cross links

Lot 4 involves new construction, with full redesign of local access roads, side streets, and agricultural routes.

RSA findings noted that:

- The bypass will channel significant freight traffic towards border points (Ukraine/Romania)
- Intersections and roundabouts require careful design to prevent unsafe merging
- Access to agricultural land along the alignment must be redesigned, as natural access patterns are interrupted by the new embankment
- Internal village road links require safe crossing points and appropriate speed-management

The bypass will remove heavy trucks from the village, but during construction, villagers will face:

- detours
- temporary access interruptions
- reduced safety near works areas
- higher risk from construction machinery on narrow rural roads

Impacts on Lot 2: Past land acquisition (2019) completed; Phase 2 design still missing. Additional access impacts may arise once design is finalised.

Impacts on Lot 3: No land acquisition foreseen; access impacts may arise once design is finalised.

Construction-phase effects include:

Residents, Businesses, Public Transport Users

- Temporary detours, single-lane traffic, and reduced visibility
- Disrupted access to bus stops, shops, and community facilities
- Temporary closure of side roads while culverts and junctions are rebuilt
- Increased safety risks from construction machinery, especially in villages

Agricultural Land Access

- Temporary blocking of field access points (Lot 1 risk substantiated by RSA)
- Risks of delays in seasonal agricultural activities
- Potential temporary economic displacement (short-term)

Traffic and Safety

RSA conclusions highlight key risks:

- Lack of deceleration lanes at commercial properties → risk of rear-end collisions
- Unsafe or missing access points → pedestrians and tractor drivers forced into unsafe manoeuvres
- Poor visibility at temporary diversions
- Higher risk of run-off-road accidents without rumble strips
- Construction trucks moving through villages with limited space

Required Management Measures

- A Traffic Management Plan (TMP) developed with NRA, Police, LPAs
- Advance communication of closures, detours, bus stop relocations
- Maintaining accessibility to homes, farms, and businesses
- Pedestrian safety measures and signage
- Temporary access tracks or service roads

Operational impacts include:

Increased speed and accident risk

High-speed segments after rehabilitation may see increased accident rates unless:

- RSA recommendations are implemented (rumble strips, delineation, roundabout redesign).
- Access points are consolidated to match expressway standards.

Agricultural Vehicles

Unmarked agricultural machinery (e.g., slow-moving tractors) increases conflict risks with faster traffic.

Lot 4 – Bypass Operation

The bypass will significantly reduce safety risks inside Giurgiulești by removing transit trucks; however, safe

merging points, roundabout design, and speed control are critical.

Access and traffic restrictions along Lots 1–4 will be most significant during the construction phase, particularly in Lot 1 where multiple agricultural and local access points identified in the Road Safety Audit were not retained in the design. These constraints may cause temporary economic displacement unless alternative access is secured. A comprehensive Traffic Management Plan and design refinement—particularly regarding commercial access, side-road connections, and agricultural junctions—are required to ensure continuity of access and road safety throughout construction and operation

| Phase | Impact | Intensity | Duration | Extent | Significance of Impact |
|-------|--|-----------|-------------|---------|------------------------|
| C | Access&Severance effects to communities (Limited Access and Loss of access) | Moderate | Medium-Term | Local | Moderate |
| C | Impacts to local residents and businesses from temporary road traffic deviations and access restrictions | Moderate | Medium-Term | Local | Moderate |
| C | Road traffic and Road Safety (public transport users, road users, and pedestrians) | High | Medium-Term | Local | High |
| O | Road traffic and Road Safety | Moderate | Long-Term | Local | Moderate |
| O | Limited Access | Low | Long-Term | Limited | Low |

Table 8-12: Assessment matrix access and traffic restrictions

8.4.3. Community Health, Safety and Welfare

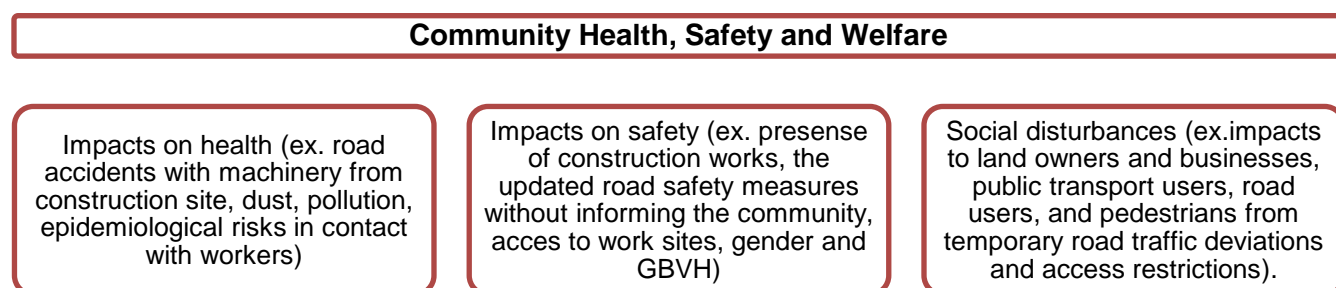


Figure 8-5: Community Health, Safety and Welfare

LOT 1 – Chişinău Airport – Porumbrei (34.4 km) (Settlements: Băcioi, Răzeni, Horeşti, Țipala, Porumbrei)

Community Health: Lot 1 traverses a relatively densely populated peri-urban and rural corridor, with high population densities in Băcioi (with Străisteni village), Horăşti, Răzeni and a significant share of children and elderly, which increases the sensitivity of the community to air emissions (dust and NO_x), noise and vibration. Health vulnerability also is influenced by gaps in basic services, with a notable proportion of households not connected to centralized water or sewerage systems. These conditions heighten the risk of dust-related health problems, especially for low-income households.

The alignment passes close to a range of sensitive receptors, including churches, festival sites, cemeteries, food markets and compact residential clusters located as near as 15–45 m from the carriageway. In several locations, residents already report vibration impacts and noise impacts (e.g. in Băcioi, Străisteni and Răzeni), indicating a pre-existing exposure to traffic-related vibration.

Public health services in the Lot 1 corridor are limited to local family doctor practices and rely on Chişinău municipality, Ialoveni District Hospital for ambulatory and high specialized medical services and the M3 corridor for referrals and emergency transport.

Despite being a rehabilitation project for Lot 1, construction activities will temporarily increase dust, noise and traffic safety risks in settlements close to the existing road. The construction phase will increase dust and particulate matter during earthworks, especially in peri-urban Băcioi, Străisteni and village Răzeni, and will temporarily elevate noise levels in settlements where dwellings are very close to the road. Worker–community interaction risks are related to several contact points where communicable diseases can spread and where inappropriate worker behaviour could affect community wellbeing. Psychosocial stress is expected to increase during periods of access restriction, detours and intensified heavy traffic through village centres. Children crossing to other part of the village to access facilities, particularly in Răzeni, face an increased risk of traffic accidents.

Mitigation Measures: To reduce health-related risks, construction works within settlements will be restricted to daytime hours, with zero-night works near dense housing zones. Intensive dust suppression will be implemented, including high-frequency water spraying (every 1–2 hours) in exposed sections near Băcioi and Răzeni, the mandatory covering of aggregate trucks, and installation of wheel washing facilities at key haul sections.

Noise mitigation will include the installation of noise barriers or acoustic screens in priority locations (if noise measurements will exceed the acceptable levels), in particular the peri-urban residential areas of Băcioi (as requested by the Mayor) and near sensitive residential blocks in Răzeni. Vibration monitoring will be carried out in Străisteni, Răzeni and pre-condition surveys of walls, fences and other structures to allow verification of any construction-related damage and to inform corrective action.

Worker health screening and hygiene protocols will be enforced to reduce communicable disease risks, and no worker accommodation will be established inside settlements. Community health communication measures will be implemented through Local Public Authorities (LPAs), schools and project leaflets distributed under the Grievance Redress Mechanism (GRM), ensuring that residents understand construction schedules, associated risks and prevention measures.

Community Safety: Safety risks in Lot 1 arise from both the existing road configuration and the planned construction activities. The road safety audit identified multiple informal accesses, agricultural roads and unregulated turning points, which create complex conflict points between local traffic, agricultural machinery and through traffic.

In Răzeni, the cemetery is located on the opposite side of the road from the main settlement area, generating considerable risk of unsafe pedestrian movement across the M3, including by children and elderly people, and constituting a confirmed major hazard. Existing lighting is insufficient at some critical nodes, such as the L465 junction in Horești. Women frequently use markets and public transport facilities; in combination with an influx of construction workers, this increases the risk of gender-based violence and harassment (GBVH), as well as feelings of insecurity.

During construction, the presence of open excavations, moving heavy machinery, temporary traffic deviations and frequent movement of large trucks through constrained village environments will further increase the likelihood of road accidents involving pedestrians, cyclists and vulnerable road users. People with reduced mobility and children, especially in areas not used to heavy construction traffic, will be particularly at risk.

Mitigation Measures: To address these safety concerns, the project will undertake a full review of informal

accesses, closing unsafe access points and rationalising connections, while installing acceleration and deceleration lanes where appropriate. Pedestrian safety will be strengthened through the introduction of two-level intersection where appropriate, using the results of baseline data collection from affected communities. Street lighting will be added at the Răzeni cemetery crossing and at the Horești L465 junction to improve visibility during dawn and evening hours.

A dedicated GBVH Action Plan will be implemented for Lot 1, including mandatory training of workers, a clear Worker Code of Conduct, the establishment of female-friendly GRM channels, and options for anonymous reporting in cooperation with local authorities and specialised NGOs if available. Information on any traffic changes, detours or temporary closures will be communicated at least 72 hours in advance through local notice boards, social media channels (e.g. Facebook/Viber groups) and information provided via LPAs.

Economic activities: Lot 1 crosses an intensely used agricultural and agro-industrial area, with orchards, fish farms and large agro-enterprises. Roadside businesses include petrol stations, food markets, tyre repair shops and industrial storage facilities, whose activity depends on reliable and safe access to the M3 and good visibility to passing traffic.

Construction may temporarily reduce direct access to these businesses and agricultural land parcels, and may also affect their visibility during periods of traffic deviation or partial closure of access points. Agricultural owners may experience crop damage (e.g. from dust deposition and accidental damage from machinery) and delays in harvest logistics if field roads are blocked during critical periods.

Mitigation Measures: An Access Management Plan will be prepared and implemented for Lot 1 prior to construction, detailing the phasing and type of temporary access arrangements for both landowners and businesses. Temporary access ramps, signage and directional customer boards will be provided to ensure that businesses maintain safe and visible access from the road during works.

A pre-construction inventory of agricultural assets, fences, gates and other property will be undertaken to establish baseline conditions and support fair compensation in the event of damage. Rapid reinstatement of disturbed accesses and timely compensation for crop loss or temporary economic displacement will be implemented in line with a Resettlement Action Plan (RAP) and EBRD PR5 requirements.

Public Transport, Road Users and Pedestrians The settlements of Băcioi, Horești, Țipala and Răzeni are served primarily by primary schools and gymnasiums, (Băcioi have a lyceum also). For upper-secondary education, many students commute to lyceums and colleges in Chișinău, using the M3 road as their main transport corridor.

Enterprises operating in Băcioi, Horești and Răzeni rely heavily on the M3 road for daily operations, including the transport of goods, supplies and staff to and from Chișinău municipality and/or Cimișlia city.

A significant share of residents in the Lot 1 localities commute daily to workplaces in Chișinău or Cimișlia, using the M3 road as their primary transport corridor.

M3 is designed as expressway with two or more lanes, accessible only through grade-separated junctions or regulated intersections, where stopping and parking on the carriageway are prohibited. the Lot 1 segment crosses several populated areas (Băcioi, Horești, Răzeni) where public transport and pedestrian flows are significant.

No formal pedestrian infrastructure or bus stops currently exist in these sections, although houses are present

on one or both sides of the road. During construction, single-lane traffic management segments and detours may cause congestion, increasing driver frustration and potentially leading to unsafe overtaking behaviour.

Mitigation measures: To comply with expressway design standards while maintaining community accessibility, bus stops and pedestrian movements will be managed through controlled and safe infrastructure, as follows:

Location and consolidation of bus stops: Bus stops will be located outside the traffic lane and consolidated at: safe lay-bys or dedicated bus bays, designed according to national road standards; service/access roads running parallel to the M3 through settlements; locations with adequate visibility, safe deceleration/acceleration space, and separation from expressway traffic. Stopping directly on the main carriageway will not be permitted in the operational phase.

Safe pedestrian access to bus stops: Pedestrian circulation will be organised to avoid uncontrolled crossing of the expressway. Measures include: Pedestrian underpasses or overpasses at locations with high pedestrian demand (e.g., in Răzeni). At-grade controlled crossings only where compliant with expressway safety requirements, equipped with traffic islands, lighting and traffic calming in settlement areas. Sidewalks and dedicated pedestrian pathways linked to bus bays using fencing or guiding barriers to prevent informal crossing.

Use of parallel service roads within villages: In densely populated areas, bus stops will be positioned along local service roads running parallel to the M3, allowing: boarding/alighting of passengers outside the high-speed traffic zone; safer interface between buses, pedestrians and local vehicle movements; elimination of bus manoeuvres on the expressway carriageway.

Post-construction operational safety. Upon completion, the expressway section will function with: no pedestrian access on the main carriageway; no stopping/parking of buses or private vehicles on the expressway lanes; dedicated, engineered infrastructure for public transport and pedestrians ensuring full compliance with expressway operational standards.

Design Considerations for Pedestrian and Agricultural Access (Lot 1)

In addition to the measures above, several design questions remain under assessment and will be informed by detailed community consultations and road safety studies:

Need for grade-separated (two-level) pedestrian crossings near Băcioi (chainage 2+00 to 4+00 and 4+30 to 4+90): Although no formal pedestrian infrastructure or bus stops currently exist in these sections, houses are present on one or both sides of the road. The ESIA recommends that the need for safe, possibly grade-separated crossings be assessed based on actual pedestrian movement patterns, particularly schoolchildren and workers who may already cross informally.

Dedicated cycling infrastructure: Community feedback and design discussions will assess whether residents use bicycles regularly for commuting between settlements and whether separate cycling infrastructure is needed. From an ESIA perspective, dedicated or shared low-speed parallel routes for cyclists can significantly reduce conflict with high-speed traffic and should be considered, at least in the most heavily used stretches.

Parallel service roads for agricultural machinery and local access: Several sections of Lot 1 are characterized by intensive farming and numerous access points. From a road safety perspective, direct access to the motorway must be reduced, but from a livelihood and access perspective, farmers need viable alternatives. Two broad options are being considered:

- (i) construction of continuous or semi-continuous parallel service roads, which would also serve as cycling routes but imply higher costs and potential additional land acquisition; and
- (ii) optimisation and reinforcement of existing dirt road networks, combined with selective new connectors for land plots that currently lack safe access.

The ESIA recommends a balanced approach, with priority given to proper infrastructure (paved or well-graded service roads) in areas serving businesses, restaurants and residential clusters, and improved dirt-road connectivity where primarily agricultural land is concerned, provided that travel distances remain reasonable and safety is ensured.

These design choices will be further refined in coordination with the National Road Administration, LPAs and local stakeholders, ensuring that access solutions are both safe and socially acceptable, and that they minimise additional land acquisition while maintaining livelihoods.

LOT 2 – Porumbrei – Cimişlia (19 km, widening 2→4 lanes) (Settlements near or related with local road access to M3: Porumbrei, Sagaidac, Grădişte, Ecaterinovca, Coştangalia)

Community Health: Lot 2 comprises a previously rehabilitated two-lane section of the M3, with embankments already prepared for future widening to four lanes as part of Phase 1 works completed in 2022. The corridor passes in proximity to several small rural settlements whose residents access the M3 via local roads. These communities are characterised by an ageing demographic profile and a relatively high proportion of households with children. Access to public sewerage infrastructure is limited—almost non-existent in Grădişte and only partially developed in Ecaterinovca. Primary healthcare is provided through rural medical outposts, while more advanced diagnostics, emergency services and specialised care depend on facilities located in Cimişlia and Hînceşti.

Porumbrei village lies very close to the road corridor, with schools and other social infrastructure situated approximately 50–450 m from the M3. The Mayor of Porumbrei village emphasised the positive impact of the project on the regional development, due to the fact that every year in the village is in construction 3-4 new houses by citizens who return from abroad. Also, was mentioned that land plots are not sold anymore, it means people keep the activity and intends to stay in the village.

The total population of the village counts 1500 inhabitants, but according to census data from 2024 is numbered 994 inhabitants (492 men, 502 women). The people working abroad was not included in the census. A total of 98% households in the village of Porumbrei, Cimislia district, are connected to the natural gas distribution network. The wastewater plant was developed from the National Ecologic Fund with a budget of 9mIn MDL, but it is not launched.

In The school of Porumbrei are 132 children from 1 to 9 mates (primary and gymnasium level).

The planned widening to four lanes is not expected to require substantial new earthworks, embankment formation or geometric realignment, as these were completed during Phase 1. Consequently, construction-phase environmental health impacts will mainly arise from asphalt paving activities and may temporarily increase local dust and noise levels.

According to the Sagaidac mayoralty, current access to and from the locality is reliable and does not constrain daily socio-economic or social service activities. Grădişte and Coştangalia villages are connected to the M3 via the L559.1 junction, with 44 schoolchildren transported daily from Coştangalia to Grădişte. Ecaterinovca is

linked to the M3 through the E584 intersection located at the end of Lot 2, where the Cimişlia bypass (implemented under a separate project) will begin, creating the potential for cumulative impacts at this node.

Close to end point of Lot 2 in Cimişlia entrance, residential houses and technical school is located.

The widening works, including temporary lane closures and diversions, will likely increase the number of high-speed construction vehicles entering small village zones, elevating the risk of accidents. Open excavations, embankments and stockpiles near settlements may attract children out of curiosity, leading to trespassing into hazardous construction areas. Gravel and mud deposited on haul roads may further compromise road safety by reducing skid resistance and creating uneven surfaces.

Mitigation Measures: to minimise the potential impacts on community health and welfare during the rehabilitation works on Lot 2, a set of coordinated mitigation measures will be implemented, reflecting the rural character of the settlements, the demographic profile of the population, and the proximity of sensitive receptors such as schools /transportation of children and social facilities in Porumbrei, Grădişte, Coştangalia, Ecaterinovca and Cimişlia.

During construction, dust and particulate emissions will be controlled through regular water spraying, reduction of vehicle speeds near settlements, and the covering of trucks transporting aggregates and asphalt materials. Wheel-washing facilities will be installed at site exits to prevent dust deposition on local roads. Noise levels will be mitigated by limiting the noisiest activities to daytime hours, using well-maintained machinery, and providing temporary acoustic screens in locations where schools or households lie within close distance of the corridor. Residents will be informed in advance of any activities that may temporarily increase noise or dust, reducing unnecessary stress and allowing households to adjust their routines.

Given the presence of vulnerable groups, particularly schoolchildren travelling daily between Coştangalia and Grădişte, technical school in Cimişlia near the end of Lot 2 and the social infrastructure located 50–450 m from the M3 in Porumbrei, pedestrian and traffic-related safety measures will be prioritised. Temporary footpaths separated from construction areas will be secured with protective barriers, and controlled crossing points will be established near school transport routes. Traffic controllers will be deployed during peak school hours, and bus stops will be safely relocated where needed to avoid direct interaction with construction zones. Construction vehicles will be required to comply with strict speed limits in settlement areas and at junctions such as L559.1 and E584.

To address potential worker–community interaction risks in small villages with limited healthcare capacity, contractors will enforce a Code of Conduct prohibiting inappropriate behaviour, harassment and alcohol use. Workers will receive training on respectful engagement and GBVH-related obligations, and they will not be accommodated within the villages. Good hygiene and health-screening practices will be applied to reduce the risk of communicable disease transmission. On-site first-aid stations and trained personnel will reduce unnecessary strain on local medical outposts, while emergency response protocols will be coordinated with ambulance services in Cimişlia and Hînceşti.

Community wellbeing will also be supported through proactive communication. Residents will receive timely information about construction schedules, detours and temporary access restrictions through village notice boards, online announcements and the project grievance mechanism. Clear signage and visual maps will guide local traffic during phased works, ensuring that access to homes, agricultural plots and social facilities

remains uninterrupted.

Finally, cumulative impacts will be managed near the junction with the future Cimişlia bypass by coordinating traffic planning and construction schedules between the two project teams. Parallel works or simultaneous closures on the M3 and E584 will be avoided, and residents of Ecaterinovca will receive consolidated information on traffic changes to prevent confusion and ensure safe mobility.

Overall, these mitigation measures are designed to safeguard air quality, minimise noise, ensure safe movement for pedestrians and schoolchildren, protect vulnerable groups, and maintain uninterrupted access to essential services throughout the construction period.

Economic activities: The economy in Lot 2 is dominated by agriculture, including corn, sunflower and vineyards also Cimislia city is an urban area. Porumbrei and Gradişte host small but economically significant shops and service points which provide basic goods and services to the local population and in Porumbrei is located a strategic food processing factory. Previous phases of land acquisition have already been completed for the widening, but temporary access disruptions are still expected during construction.

Field roads may be temporarily blocked during critical agricultural seasons, especially harvest time, and business visibility may decline during periods when traffic is diverted or when access points are constrained for safety reasons.

Mitigation Measures: Construction will be sequenced to maintain at least one functional access point to fields and businesses at any time, avoiding complete isolation. Harvest periods will be mapped through consultations with farmers and LPAs, and construction works across key agricultural accesses will be avoided during peak harvest hours or days. This data will be conducted as part of Resettlement Action Plan. Business continuity will be supported with directional signage and information to guide customers to open access routes. Any unforeseen temporary or permanent economic displacement will be managed through RAP-compliant measures, including compensation or support in line with EBRD PR5.

Transport, Road Users and Pedestrian Risks: Due to lane doubling, Lot 2 will experience more complex traffic management and detours than other lots. This can create higher risks at points where local side roads merge with the main carriageway, notably near Sagaidac, Gradişte and Ecaterinovca cross with Cimişlia where sightlines and road geometry may be constrained.

Mitigation measures: will include temporary traffic lights or managed merge systems at critical merging zones, as well as clear, consistent detour maps and road markings. Schools in the corridor will be engaged to deliver road safety lessons to children, focusing on construction-related risks, detours and safe crossing behaviour.

LOT 3 – Cimişlia – Comrat (12 km) (Settlements: Ciucur-Mingir, Cimişlia)

Community Health: Lot 3 includes both the district hub of Cimişlia and smaller rural settlements such as Ciucur-Mingir. Cimişlia has a high proportion (around 74%) of working-age population, while Ciucur-Mingir has a significant number of single elderly households (>20%), making these communities vulnerable to changes in access, air quality and noise. In the process of stakeholder engagement, people from Ciucur-Mingir raised concerns on actual critical situation of the road requesting urgent interventions to repair the access roads to the M3 national route on the grounds that they are not asphalted for a few meters as required by the regulation, but have high thresholds that cause problems for both transport circulation and the movement of citizens from health perspective.

High traffic volumes already pass through Ciucur-Mingir to avoid existing controls, leading to increased dust and accident risk. Educational and sports facilities are located within 50 m of the M3, and any increase in dust or noise during construction will directly affect children and young people. At village level, medical capacity is limited, with more advanced services concentrated in Cimişlia and Comrat.

Mitigation measures: will focus on both the main alignment and connector roads. Police enforcement will be requested to prevent diversion of additional traffic through Ciucur-Mingir and other villages during construction, especially heavy trucks attempting to bypass works. Dust suppression will be carried out on village approach roads where project-related traffic increases, and communication with district medical authorities will ensure preparedness to address any spikes in respiratory or accident-related cases.

Community Safety: This section is characterised by hazardous driving patterns, including high-speed bypassing through villages and risky overtaking (information confirmed with mayoralty and citizen individual meetings). The lack of adequate lighting at interfaces between the M3 and village roads reinforces these risks. Detours associated with construction may further increase traffic flows into narrow village streets, where vulnerable road users share space with vehicles.

Pedestrian crossings near shops and bus stops are currently limited and poorly protected; without adequate temporary arrangements, the risk of accidents will increase during construction and potentially during operation if speeds increase.

Mitigation Measures: Temporary anti-bypass barriers will be installed to discourage cut-through traffic within villages, particularly during sensitive phases of construction. Safer temporary crossings will be provided near community centres, shops and bus stops, using high-visibility markings and, where feasible, temporary islands or narrowing devices. Solar LED lighting will be introduced at key M3–village nodes to improve night-time visibility and reduce accident risks.

Economic activities: The local economy relies heavily on agriculture and timely access to fields and markets. Construction works may block or delay movements along agricultural roads, impacting harvest logistics and income.

To mitigate these risks, daily coordination meetings (or regular consultations) with farmers and LPAs will be organised during critical construction phases to identify planned works and access needs. Designated safe crossing points for agricultural machinery will be established, and culverts or temporary access structures will be installed to maintain connectivity where drainage works or embankments could otherwise block access.

Transport, Road Users and Pedestrian: Congestion is likely to increase on the periphery of Cimişlia during construction, with some detour traffic entering Ciucur-Mingir. The project will provide real-time updates to LPAs to allow them to inform residents and adjust local traffic management. Police presence will be strengthened during peak periods, especially at junctions with high pedestrian flows. Dedicated bus bypass routes for school transport will be defined and communicated, ensuring that school transport remains reliable and safe despite construction works.

LOT 4 – Giurgiuleşti Bypass and Border Roads (6.2 km) (Settlements: Giurgiuleşti, Cîşliţa-Prut)

Community Health: The Lot 4 area has long been exposed to heavy truck traffic transiting directly through the centre of Giurgiuleşti on R34 road, with houses located only 3–5 m from the road. Residents, including large numbers of schoolchildren and elderly people, are chronically exposed to noise, vibration and exhaust

emissions. Key community institutions (school, kindergarten, clinic, museum) are all within close proximity to traffic flows.

Border-related queues of idling trucks generate sustained exhaust emissions and elevated noise levels. During reconstruction, major dust, noise and vibration impacts are expected, particularly in densely built-up sections of Giurgiulești. Due to the presence of border workers and cross-border travellers, including transient truck drivers, there is a heightened risk of communicable disease transmission and stress-related health problems, particularly for women and workers in border-related services.

The prioritised construction of the bypass will divert heavy traffic away from the village centre as early as technically feasible. This will substantially reduce long-term exposure of residents to hazardous traffic, particularly heavy vehicles, thereby improving local air quality, reducing noise and vibration, and lowering the incidence of road accidents and associated trauma.

Mitigation Measures: During construction, intensive dust control measures will be implemented in the vicinity of schools, the kindergarten and residential quarter. Noise and vibration monitoring will be carried out near the clinic and heritage buildings (e.g. museum), and strict limits on night works will apply in inhabited areas (zero-night works in residential sections). These measures, combined with future removal of through-trucks from the village, will lead to a net reduction in health and safety risks for the community compared with the current situation.

Community Safety: Lot 4 sits at the interface of two international borders, with chaotic flows of heavy trucks and cross-border traffic. Parallel works at the Border Crossing Point (BCP) and the Giurgiulești International Free Port (GIFP) expansion create cumulative traffic and safety impacts, with overlapping construction activities and complex traffic patterns.

There is an elevated risk of GBVH due to the large male external workforce, the presence of foreign truck drivers and the concentration of women in service and border-related jobs. Traffic conflicts between local residents, cross-border travellers and construction vehicles are expected to increase during the construction period, especially where movements are not sufficiently coordinated among different projects.

Mitigation Measures: An integrated Traffic Management Plan will be developed jointly with Border Police, Customs and GIFP/BCP project teams, harmonising schedules and traffic routing to minimise congestion and conflict points. Worker behaviour will be regulated by a clear Code of Conduct and supported by GBVH prevention and response measures, including a hotline, awareness campaigns and, where appropriate, CCTV at worker access points. Pedestrian safety will be enhanced through improved signage, delineated footpaths and strict speed enforcement by Border Police in key segments, particularly near residential areas and social institutions.

Economic activities: Several businesses (fuel stations, currency exchange offices, shops, pharmacies, logistics and GIFP operators) depend on uninterrupted access and visibility. During construction, temporary loss of access and reduced visibility could affect trade and logistics operations. These risks will be addressed through parcel-level RAP implementation, maintaining commercial access via temporary ramps and bespoke signage, and coordinating works carefully with Free Port operators and other key stakeholders to avoid peak logistics periods.

Transport, Road Users and Pedestrian Risks: High pedestrian mobility is observed near the school, clinic,

museum, residential areas, recreational areas and markets. Construction works and changes to traffic patterns can increase accident risks in these areas.

Mitigation will include relocating bus stops to safe, well-lit locations with adequate waiting areas, designing pedestrian corridors linking the school and kindergarten, and implementing road safety sessions in schools focusing on both current construction risks and future road use once the bypass is operational.

PROJECT-WIDE IMPACTS AND MITIGATION

Construction Phase – Community Health and Safety

Across all lots, the presence of the construction workforce and the construction activities themselves will affect community health and safety through multiple pathways:

- Increased exposure of pedestrians, cyclists and other road users in the vicinity of active construction areas.
- Frequent movement of construction vehicles transporting materials (sand, gravel, asphalt) and waste to/from quarries and disposal facilities, often via small rural roads not used to heavy truck traffic.
- Presence of open excavations, moving machinery and stored materials which may attract unauthorized entry (trespass, theft) and pose safety hazards, particularly for children.
- Risk of accidental damage to public infrastructure (e.g. underground power lines, water supply, drainage) which can lead to service disruptions and safety incidents.
- Temporary changes to traffic flows and detours that force road users onto unfamiliar routes and concentrate traffic on other road sections, increasing accident risks and affecting pedestrians and other vulnerable users.
- Potential damage to private property (fences, gates, walls, buildings) and local infrastructure.
- The influx of workers from outside the area may also generate social risks, including GBVH and harassment, particularly affecting women and girls. Inappropriate behaviour by construction workers can lead to declines in wellbeing and mental stress. Vulnerable groups in rural areas, who may not be accustomed to frequent heavy trucks on their roads, will be at greater risk of accidents.

Mitigation in construction phase:

These impacts will be managed through a suite of project-wide measures, including:

- Comprehensive Traffic Management Plans for each lot, coordinating haul routes, detours and safety signage.
- Strict enforcement of speed limits for construction vehicles, particularly in settlements, combined with road safety awareness among drivers.
- Physical barriers, fencing and secure storage areas to reduce unauthorized entry and prevent accidents.
- Clear communication with communities about construction schedules, detours and safety risks through LPAs, public notice boards and digital channels.
- A robust Grievance Redress Mechanism accessible to communities and workers, enabling timely reporting and resolution of issues including safety concerns, property damage and GBVH-related complaints.
- Implementation of a Worker Code of Conduct, GBVH training and gender-sensitive GRM channels.
- Prior damage surveys and rapid repair or compensation for any accidental damage to property and public infrastructure.

For Lot 4, the construction of the bypass is directly linked to long-term reductions in health and safety risks through removal of heavy vehicles from residential streets. While short-term impacts during construction are

inevitable, they are outweighed by substantial long-term benefits in air quality, noise reduction and road safety once heavy trucks are rerouted away from the village.

B. Operation and Maintenance Phase – Accident and Safety Risks

Once the rehabilitated and widened roads become operational, increased vehicle speeds and traffic volumes can result in higher accident risks if no adequate control measures are in place.

Lot 1: Peri-urban Băcioi (Străisteni commune), Răzeni will continue to host dense pedestrian flows, including children, and are therefore highly sensitive to speed increases.

Lot 2: The new four-lane configuration increases the potential for speeding and unsafe merging from local roads.

Lot 3: Persistent tendencies for cut-through traffic in villages such as Ciucur-Mingir may continue if not adequately managed.

Lot 4: Trucks accelerating toward the border and port may create new conflict points at junctions and crossings if traffic management is insufficient.

Unmarked or improperly operated agricultural machinery on or near the M3 (Lots 1–3, and to a lesser extent Lot 4) will remain a risk, particularly at night or in poor visibility conditions.

Mitigation in Operation and Maintenance:

Installation of speed cameras and/or other speed control measures at village entries and high-risk sections, with priority for Lots 1 and 2, 3.

Provision of service roads or designated routes for agricultural machinery in Lots 1, 2 and 3, and signage indicating “Agricultural Machinery Crossing” zones.

Fully lit junctions and critical segments (e.g. village entries, main intersections, border approaches), reducing night-time accident risk.

Periodic road safety education campaigns in schools and communities, including safe use of new infrastructure (e.g. crossings, islands, service roads).

Detailed feasibility and design analysis for grade-separated pedestrian crossings in high-demand areas such as Răzeni and other critical locations in Lot 1, based on observed patterns and stakeholder feedback.

Operationalisation of truck parking and logistics facilities in Lot 4, accompanied by route planning that keeps heavy vehicles off residential streets and minimises exposure of vulnerable groups.

| Phase | Impact | Intensity | Duration | Extent | Significance of Impact |
|-------|---|-----------|----------|----------|------------------------|
| C | Community Health during construction (dust, noise, vibration, worker community interaction) | High | Medium | Local | High |
| O | Community Health during operation | Moderate | Long | Local | Moderate |
| C | Community Safety during construction | High | Medium | Local | High |
| O | Community Safety during operation | Moderate | Long | Local | Moderate |
| C | Community welfare during construction | Moderate | Medium | Local | Moderate |
| O | Community welfare during operation | High | Long | Regional | High Positive |

Table 8-13: Assessment matrix health, safety and welfare

8.4.4. Occupational Health and Safety, Labour and working conditions

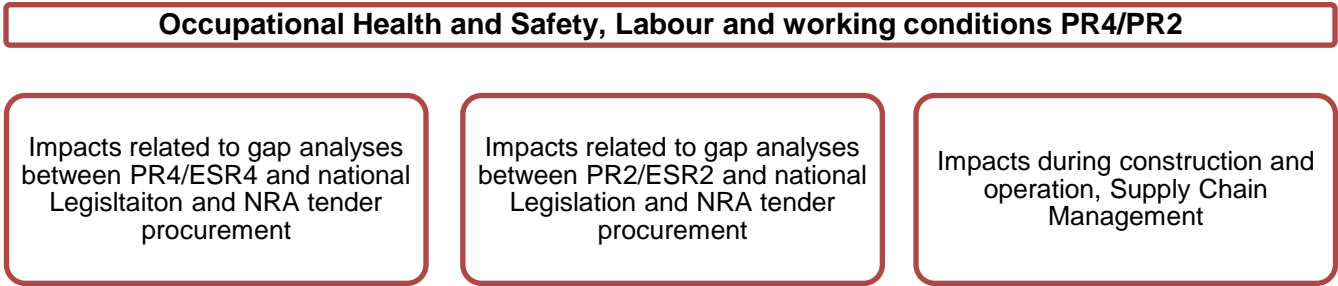


Figure 8-6: Occupational Health and Safety, Labour and working conditions

A. Occupational Health and Safety (PR 4)

Impacts OHS and working conditions during construction

During the construction phase, the project workforce will be exposed to a range of occupational hazards typical for large-scale road rehabilitation works. Given the linear nature of the M3 corridor and the need to work within or adjacent to active traffic lanes, the risk profile for workers across Lots 1–4 is elevated. Construction activities involve heavy machinery, variable terrain, and exposure to weather conditions, all of which may create conditions that can lead to injuries, long-term illnesses, or serious incidents if not adequately managed.

One of the most significant risks relates to traffic-related accidents. Workers often operate in close proximity to live traffic where vehicles continue to pass at high speeds. Inadequate separation between work zones and traffic flows can lead to collisions involving both private vehicles and construction machinery. This risk is particularly pronounced in peri-urban areas (e.g., Băcioi, Răzeni, Ciucur-Mingir, Giurgiulesti cross-border points) and at locations where visibility is limited.

Workers are also exposed to excessive noise, especially when operating or working near equipment such as jackhammers, pavers, compactors, and breakers. Prolonged exposure to these noise levels can result in temporary or permanent hearing loss, as well as increased fatigue, reduced concentration, and a higher likelihood of accidents.

Another important category of hazards includes extreme weather exposure. During summer months, high temperatures and prolonged sun exposure can cause heat stress, dehydration, or heatstroke. Conversely, cold-season works can expose workers to frostbite, hypothermia, and reduced dexterity, increasing the risk of errors and accidents.

Vibration hazards are also prevalent, especially for workers operating vibrating tools, compactors, or heavy machinery for extended periods. Chronic exposure may lead to hand–arm vibration syndrome (HAVS) and other musculoskeletal disorders, affecting workers’ long-term health and earning capacity.

Some activities may require work above ground level, creating fall-from-height risks, which can lead to serious or fatal injuries if adequate controls are lacking. Even at ground level, workers face risks of slips, trips, and falls, particularly in areas cluttered with tools, uneven surfaces, excavations, cables, and construction debris. These hazards are common across all lots and can occur during routine tasks.

Mitigation Measures

Traffic-Related Hazards: Implement a Construction **Traffic Management Plan** that includes safe work-zone design, barriers, cones, and advance warning signage. Use shadow vehicles with flashing beacons to protect workers in high-speed areas. Introduce temporary speed limits and coordinate with Police Inspectorate for enforcement where needed.

Noise Exposure Provide workers with hearing protection (EN 352 compliant), apply noise-reduction measures, such as equipment mufflers and scheduling high-noise activities during limited time windows, conduct periodic noise monitoring and rotate staff to minimize cumulative exposure.

Weather-Related Hazards Implement heat stress and cold weather protocols, including shaded rest areas, scheduled hydration breaks, and provision of warm clothing. Adjust work schedules during extreme heat or freezing conditions. Train workers to recognize signs of heat exhaustion, dehydration, hypothermia, and frostbite.

Vibration Hazards Limit exposure time to vibrating equipment through job rotation. Provide tools with anti-vibration handles and ensure proper maintenance. Conduct regular health checks for early detection of HAVS and musculoskeletal disorders.

Working at Heights Use fall protection systems such as guardrails, harnesses, and certified anchorage points. Require work-at-height permits and ensure only trained personnel perform such tasks. Conduct inspection of ladders, scaffolding, and elevated platforms before use.

Slips, Trips, and Falls Maintain clean, organised work areas and remove unnecessary obstructions. Ensure proper housekeeping, including cable management and debris removal. Provide appropriate non-slip footwear and conduct daily site walkovers to identify and eliminate hazards.

Management Measures (Cross-Cutting) Conduct mandatory OHS induction training and daily toolbox talks. Carry out Job Hazard Analyses (JHAs) for all high-risk tasks. Provide adequate supervision and ensure clear communication between workers and machine operators.

Maintain first-aid kits and trained first responders at each active work front.

Enforce the Stop-Work Authority if unsafe conditions are observed.

Impacts OHS/Labour conditions during operation and maintenance

Once the rehabilitated sections of the road become operational, they will require periodic and routine maintenance to ensure the structural integrity of the pavement, roadside drainage, signage, and safety barriers. These activities introduce specific health and safety risks due to the close interaction between the maintenance workforce and live traffic.

Exposure of maintenance crew to live traffic

Maintenance personnel may work within or immediately adjacent to active lanes, increasing the risk of collisions, particularly on high-speed segments.

Road users may not anticipate workers on the carriageway, especially during early morning, late evening, or poor weather conditions.

Speed-related risks

Improved road geometry and pavement conditions may encourage higher vehicle speeds (common along M3 Lots 1–4), which increases stopping distances and the severity of potential crashes.

Excessive speed reduces the reaction time available to avoid maintenance crews or traffic management

devices.

Temporary traffic disruptions

Lane closures or contraflow systems may create short-term congestion and accident risks if not properly signalled or communicated to road users.

Visibility and weather-related hazards

Fog, rain, or snow (frequent in southern and central Moldova) may reduce drivers' ability to notice maintenance workers in time.

Poor lighting in rural segments affects worker visibility during shoulder periods.

Mitigation Measures (Operation & Maintenance Phase)

EBRD PR4/ESR4-compliant and aligned with Moldovan road safety norms (CP D.02.18:2017; Traffic Regulations; OHS Law 186/2008).

Traffic Management for Maintenance Works: Develop and implement a Maintenance Traffic Management Plan (MTMP) for all routine and periodic maintenance operations. Use advance warning signage, cones, reflective barriers, and temporary speed-reduction zones placed at adequate distances following CP D.02.18:2017. Ensure clear delineation of working zones with high-visibility barriers for works on bridges, drainage ditches, or culverts.

Workforce Protection Measures: Mandatory use of high-visibility PPE (EN ISO 20471 Class 2 or 3), Training of maintenance staff in roadside safety, situational awareness, and emergency response, use of shadow vehicles equipped with flashing beacons, crash cushions (where applicable), and LED arrow boards, prohibition of workers facing away from oncoming traffic (in line with best practice).

Speed Management Measures: Introduction of temporary speed restrictions (30–50 km/h) around maintenance zones. Enforcement via mobile patrols or coordination with Police Inspectorate when required for high-risk segments. Installation of portable rumble strips or speed bumps at critical locations to ensure drivers reduce speed.

Communication with Road Users Provide real-time information on temporary closures or lane restrictions via: local mayoralities, social media channels, roadside variable message signs (if available). Maintain a public notification protocol to ensure communities in the Aol are informed of maintenance works.

Work Scheduling: Conduct high-risk maintenance (vegetation clearing, drainage cleaning, pothole patching) during off-peak hours; Avoid maintenance works at night; if unavoidable, ensure portable lighting without disturbing nearby households.

Emergency Preparedness: maintain on-site first aid kits, communication devices, and emergency contact protocols; ensure rapid withdrawal procedures for workers if road conditions suddenly become unsafe (fog formation, black ice).

The rehabilitation and construction works will give a rise to occupational, health and safety risks to workers, including those related to working with machinery, formation of asphalt, use of cement, working at height, working near utilities.

The national OHS framework applicable to the Project – Law 186/2008 on Occupational Health and Safety, its implementing regulations (GD 95/2009 and sanitary regulations) and the sector-specific CP D.02.18:2017 on safety rules for the construction, repair and maintenance of roads – broadly aligns with the general

occupational health and safety requirements of EBRD PR4 for protection of workers, including risk assessment, employer duties, training, medical surveillance and provision of PPE. However, the Moldovan legislation is primarily focused on workplace OHS, whereas PR4/ESR4 also requires systematic management of health, safety and security risks to project-affected communities, security arrangements, GBV/SEA, high-risk supply chains and incident reporting to the Bank in line with EU OSH standards and good international practice. Gap analyses is presented in baseline section 4.8.9 and to bridge the gaps the following mitigation measures are proposed:

Project-Level OHS Management

- Prepare a Project OHS Management Plan (OHSP) aligned with PR1/PR4, EU OSH directives, and ISO 45001.
- Include the hierarchy of controls, OHS KPIs, monitoring arrangements, and management review mechanisms.
- Introduce behaviour-based safety practices and mandatory Stop-Work Authority for all workers.
- Establish an anonymous near-miss and unsafe-act reporting system, integrated into toolbox talks and monthly OHS performance statistics.
- Develop an Incident Management Procedure covering incident classification, root-cause analysis (RCA), and CAPA (corrective and preventive actions) tracking.
- Ensure timely reporting of serious incidents to EBRD in line with PR4 requirements.

Contractor OHS Performance & Compliance

- Develop a Contractor OHS Management Procedure including pre-qualification criteria, OHS KPIs, mandatory Job Hazard Analyses (JHAs) and method statements, and regular audits.
- Require full contractual compliance with PR4/ESR4, Moldovan OHS law, and EU OSH directives for contractors and subcontractors.
- Prepare a Community Health, Safety and Security Plan (CHSSP) covering interface risks between construction activities and the public.

Traffic & Road Safety During Construction

- Prepare a Traffic and Road Safety Management Plan for construction works, including safe detours, lane closures, speed restrictions, and signage.
- Implement community notification procedures via mayoralty boards, social media channels, and roadside signage.
- Agree on emergency access protocols with local emergency and medical services.

GBV/SEA Risk Prevention and Worker Conduct

- Develop a GBV/SEA Action Plan aligned with PR4/ESR4 and PR2/ESR2.
- Adopt a Worker Code of Conduct with explicit GBV/SEA clauses, mandatory signing, and zero-tolerance enforcement.
- Ensure mandatory induction and periodic refresher training for all workers.
- Provide confidential grievance pathways and safe reporting mechanisms for GBV/SEA concerns.

Security Management (if applicable)

- Prepare a Security Management Plan compliant with PR4/ESR4, including vetting of personnel, proportional use of force, conflict de-escalation training, GBV sensitivity, and incident-reporting protocols.

Supply Chain OHS Requirements

- Require suppliers to demonstrate OHS compliance, including risk assessments, certifications, and licenses.
- Integrate PR4/ESR4 and EU OSH requirements into procurement documents.
- Reserve the right to audit high-risk suppliers and enforce corrective measures.

Worker Engagement & OHS Governance

- Integrate worker health and safety feedback channels into the Project GRM (PR10/ESR10).
- Establish Joint OHS Committees (client + contractors) holding regular reviews of audits, incidents, and CAPA (corrective and preventive actions) effectiveness.

B. Labour and working conditions (PR2)

This sub-chapter assesses labour and working conditions for the M3 Road Rehabilitation Project (Lots 1–4) in line with EBRD Performance Requirement 2 (Labour and Working Conditions), taking into account the national legislative framework of the Republic of Moldova, ILO Conventions, and international best practices. It also considers institutional oversight, typical sector violations, risks associated with migrant and non-local labour, and gaps in procurement documentation (FIDIC Red Book) relative to PR2.

Representatives from the Ministry of Labour, Migration and Employment, Department of Construction and Repair Works, stated that typical labour violations are working hours, the lack of PPE and training on the use of PPE, workers not being paid on time, and not being provided with adequate welfare facilities, poor management of occupational health and safety risks, and the provision of unsafe accommodation facilities.

Key Impacts Related to Labour and Working Conditions

The following labour-related impacts are anticipated during construction:

Impact 1: Risks from Poor Labour and Working Conditions

Potential consequences include: Increased accidents and injuries, worker fatigue from excessive hours, wage arrears and financial distress, discrimination or harassment, reduced morale, productivity, and retention, exploitation of foreign or subcontracted workers

Impact 2: Risks from inadequate worker accommodation (if required)

These include: fire, electrical and structural safety hazards, overcrowding and poor hygiene, lack of gender-sensitive facilities, restrictions on worker movement, psycho-social stress and reduced wellbeing.

Impact 3: Risks to Non-Employee Workers (contractors, subcontractors, suppliers)

Due to gaps in national legislation and typical oversight limitations: use of informal contracts or unclear terms, higher exposure to OHS risks, potential exploitation by intermediaries, inconsistent access to worker GM.

Impact 4: Forced Labour / Modern Slavery Risks

Especially relevant for migrant workers: passport retention, recruitment fees, coercive practices by labour brokers, withholding of wages

Impact 5: Limited Worker Participation and Weak Enforcement

Insufficient oversight of subcontractors, lack of labour inspections, weak internal monitoring mechanisms

The national legislative framework in Moldova provides a solid legal basis for labour protection, but **implementation gaps and sector-specific risks** (especially for subcontracted and migrant labour) highlight the need for **project-specific PR2-aligned systems**.

There are specific requirements regarding management of labour and working conditions applicable for all EBRD funded projects. These requirements are defined under PR2/ESR2 – Labour and Working Conditions. Additionally, there are other documents, guidance notes and examples of international best practices that can be included in the project requirements. One of the main requirements under PR2/ESR2 is for the Client to develop their own **Human Resources Policies and Human Resources Management Plan** appropriate for the project. HR policies must be in place, implemented and applicable, understandable and accessible to all employees and non-employee workers. Additional, following management plans should be implemented: **Worker Code of Conduct, Occupational Health and Safety Management Plan, Emergency Responsive Plan, Worker Grievance Mechanism**.

The NRA has a publicly available Code of Conduct that sets out the organisation's ethical standards and behavioural rules for all employees. The Code of Conduct is not fully aligned with PR2/ESR2 and misses provisions on Child and Force labour prohibition, Freedom of Association and Collective Bargaining, Employment terms, fair wages and working hours, grievance mechanism, supply chain and contractor compliance, provisions on worker accommodation (if applicable).

In most cases the Client can rely on the national laws for the management of labour and working conditions on site. Under the national legislation of the Republic of Moldova, the requirements are broadly aligned with the provisions of EBRD ESR/PR 2, as reflected in Table 4-38. However, when it comes to actual implementation, practice has shown that issues on site are not caused by the legislation itself, but with enforcement of national legislation due to poor institutional oversight. This is particularly the case with site workers, subcontractors and suppliers.

Procurement Process to select Executive Contractor

Within the International procurement process it is important to note that none of the common international frameworks cover all of the requirements of PR2/ESR2, and therefore it will typically be necessary to identify risks that will occur gaps with PR2/ESR2 requirements.

The NRA uses the FIDIC Red Book as template for the contract and as legal document with its contractors. The FIDIC Red Book is not completely aligned with PR2/ESR2, as it does not include an explicit prohibition of child or forced labour, does not provide an anonymous and accessible worker grievance mechanism, lacks specific requirements on ethical recruitment and passport retention, and does not cover contractor and supply-chain oversight in the manner required by PR2/ESR2.

The FIDIC Redbook contract relies on compliance with Moldova's labour law however PR2/ESR2 expects explicit non-discrimination and equal opportunity safeguards.

The FIDIC Redbook does not reference the freedom of association, right to join trade unions or collective bargaining. The Redbook does require contractors to comply with applicable national labour laws which does includes these rights.

The FIDIC Redbook Clause 6 does cover basic labour related requirements such that the contractor must

follow national labour laws related to wages, working hours and conditions. Contractor must pay rates and observe conditions that comply with applicable labour laws. Furthermore, clause 6.6. requires Contractors to provide necessary welfare facilities and accommodation but does not specify standards. National labour law in Moldova established a 40-hour work week and requires premium pay for overtime. Furthermore, the law also sets a minimum wage that meets national standards.

The NRA has indicated that in the tender process to select a contractor they include ESHS requirements that the bidder must meet such as ISO 14001, OHSAS 18001/ISO 45001 or own written policies and procedures if they don't have certificates. Furthermore, the bidder must show they have done at least one similar project safely and in line with international standards. Lastly, the bidder must submit an ESHS plan.

No PR2 Labour requirements are included in the tender documents/ procedures.

Mitigation Measures

The mitigation framework ensures: alignment with EBRD PR2 and PR4, compliance with Moldovan Labour Code and OHS legislation, closure of procurement documentation gaps, clear accountability across Client, Owner's Engineer, Contractors and Subcontractors, risk mitigation across recruitment, employment, supply chain, OHS and worker welfare

1. Strengthening Contractual and Procurement Requirements (FIDIC Red Book)

The Client shall update bidding documents and FIDIC contracts to include explicit PR2/ESR2 and PR4 obligations applicable to contractors and subcontractors. **Key Contractual Clauses to Include:**

Child and Forced Labour: Absolute prohibition of child labour and forced labour, Mandatory age-verification procedures, Prohibition of passport/ID retention, Recruitment through ethical channels only.

Non-Discrimination and Equal Opportunity: Non-discriminatory hiring and employment practices, Equal access to wages, benefits and training, Explicit right to freedom of association and collective bargaining.

Ethical Recruitment: Prohibition of recruitment fees charged to workers, Transparent employment contracts in a language understood by workers

Worker Accommodation (where applicable): Compliance with EBRD / IFC Workers' Accommodation: Processes and Standards **Grievance Mechanism:** Mandatory worker GRM for contractors and subcontractors, anonymous and accessible channels, requirement to share grievance register summaries with the Client.

Supply Chain Due Diligence contractor obligation to ensure primary suppliers are free from child and forced labour, risk screening of new suppliers, reporting and corrective action requirements.

Labour Management Plan (LMP) Mandatory Contractor Labour Management Plan prior to mobilisation, regular reporting and labour audits

2. Human Resources / Labour Management System (Client-Level)

The Client (NRA) shall develop and implement a comprehensive Labour Management System aligned with PR2. Components: HR Policy aligned with PR2/ESR2, Labour Management Procedures, Recruitment and onboarding protocols, Working hours and wage monitoring, Disciplinary procedures, Collective dismissal procedure aligned with PR2 (including analysis of alternatives), GBVH/SEA safeguards, Worker grievance mechanism and register, OHS integration (PR2–PR4 interface), Supply chain monitoring procedures, Internal and external reporting mechanisms.

3. Contractor and Subcontractor Management

Pre-Contract Stage: Assessment of past labour and OHS performance, Evaluation of contractor capacity to implement PR2 and PR4, Inclusion of labour compliance as pre-qualification criterion.

During Implementation: Mandatory Contractor Labour Management Plan, Flow-down of PR2 clauses into subcontract agreements, Regular labour audits and site inspections, Monitoring of recruitment practices and age verification, Monitoring of supply chain compliance.

4. Updated Code of Conduct

The Code of Conduct shall be updated and signed by all workers, contractors and subcontractors, including: Prohibition of child and forced labour, Freedom of association, Fair wages and working hours, Anti-harassment and non-discrimination, GBV/SEA prevention measures, Ethical recruitment principles, Worker accommodation standards (if applicable), Access to grievance mechanisms, Non-retaliation commitments.

5. Worker Grievance Mechanism (Internal GRM)

A dedicated Worker GRM shall be established at both Client and Contractor levels.

Requirements: Anonymous reporting channels (hotline, grievance boxes, email, worker representatives), Confidentiality safeguards, Clear resolution timelines, Tracking and reporting system, Accessibility to contractor and subcontractor workers, Explicit non-retaliation policy, NRA access to contractor grievance summaries.

6. Worker Accommodation Plan (If Applicable)

Where worker camps are required, a Worker Accommodation Plan shall be developed aligned with EBRD / IFC standards.

Minimum Standards: Adequate room size and occupancy, Fire safety systems, Electrical and structural safety, Gender-sensitive WASH facilities, Recreational and common areas, Freedom of movement, Regular inspections and corrective actions

7. OHS and Training Measures (PR2–PR4 Interface)

A comprehensive Occupational Health and Safety Management Plan (OHSP) shall be implemented.

Key Measures: Job Hazard Analyses (JHAs) / Method Statements, Stop-work authority for unsafe conditions, Behaviour-based safety programme, Mandatory PPE provision and enforcement, Incident and near-miss reporting, Occupational medical surveillance, Toolbox talks and ongoing safety training.

8. Monitoring, Supervision and Oversight

Owner's Engineer Responsibilities: Inclusion of PR2 labour monitoring in ToR, Review of grievance records, Monitoring compliance with age verification and recruitment practices, Monthly and quarterly compliance reporting, Documentation of non-compliances and corrective actions.

External Oversight: Joint inspections with State Labour Inspectorate (where applicable), Periodic labour compliance audits

C. Supply-Chain Health & Safety (High-Risk Supply Chains)

Under current Moldovan legislation, Law 186/2008 on Occupational Health and Safety applies strictly to employers operating within the territory of the Republic of Moldova and does not impose obligations on project developers or contractors to oversee the occupational health and safety (OHS) performance of upstream

suppliers. As a result, there is no legal requirement for supply-chain OHS screening, verification, or monitoring of high-risk suppliers, such as quarries providing aggregates, bitumen suppliers, asphalt plants, or transport subcontractors. This regulatory gap can lead to the inclusion of suppliers with inadequate OHS systems and increases the risk of unsafe practices within the supply chain.

Furthermore, Moldova's supply landscape is dominated by small and medium enterprises (SMEs), many of which may operate with lower labour and OHS standards compared to larger firms with formal management systems. SMEs may lack structured training, risk assessments, documented procedures, or certified OHS management systems. Therefore, there is an inherent risk that violations of labour legislation (e.g., lack of PPE, inadequate working conditions, excessive working hours, unregistered workers) may occur among suppliers providing materials and services to the Project. These violations may take place both at the suppliers' production sites (quarries, asphalt plants, material depots) and among workers delivering materials to the construction site.

Without explicit contractual or procedural controls, there is a risk that the Project becomes linked to unsafe working conditions, substandard labour practices, and potential child or forced labour risks, particularly among primary suppliers operating in low-oversight environments.

Mitigation Measures Aligned with EBRD PR4/PR2 and FIDIC

To address these risks, the Project will adopt a strengthened supply-chain management approach that goes beyond Moldovan legal requirements and aligns with EBRD PR4/ESR2 (Health & Safety) and PR2/ESR2 (Labour & Working Conditions).

Supplier OHS Compliance Requirements All high-risk suppliers (aggregates, bitumen, asphalt plants, fuel suppliers, transport subcontractors) will be required to demonstrate OHS compliance, including: valid operating licenses and permits; documented risk assessments for key processes; evidence of worker training and use of PPE; compliance with Moldovan labour legislation.

OHS and labour requirements will be explicitly included in the procurement documentation, referencing PR4/ESR4, PR2/ESR2, and EU OSH principles.

Supply-Chain Auditing Rights The Project Owner will reserve the right to audit high-risk suppliers and subcontractors at any time. Contractors will be required to cooperate with audits and to implement corrective actions (CAPA) where deficiencies are identified.

Supply-Chain Risk Screening Contractors will be required to establish a risk screening procedure for all new suppliers, including: verification of compliance with national OHS and labour laws; review of past incidents, sanctions, or complaints; evaluation of working conditions at supplier facilities; identification of high-risk suppliers requiring enhanced oversight.

Prohibition of Child and Forced Labour A specific contractual clause will be included in the FIDIC Contract requiring all contractors and suppliers to ensure that their primary supply chains are free from child labour, forced labour, or any form of exploitation. Contractors must monitor suppliers and report any findings or suspicions immediately.

Integration into the FIDIC Contractor's OHS/Labour Obligations FIDIC Contract Conditions will be supplemented with: requirements for suppliers to comply with PR4/ESR4 and PR2/ESR2; obligation to provide evidence of OHS systems, labour compliance, and licences before supply begins; enforcement mechanisms,

including the possibility to remove non-compliant suppliers.

SME Support & Alignment Recognising that many suppliers are SMEs, the Project may provide guidance on minimum OHS expectations, templates for risk assessments, and awareness materials to help raise compliance levels without excluding SMEs.

Transparent Reporting Contractors will report monthly on: supplier screening results; audits conducted; non-compliances identified; CAPA implementation and closure.

This reporting will be integrated into the Project's OHS and Labour Monitoring system.

| Phase | Impact | Intensity | Duration | Extent | Significance of Impact |
|-------|--|-----------|----------|----------|------------------------|
| C | Occupational Health and Safety gap impacts | Moderate | Long | Regional | High |
| C | International Tender Procedure aligning with PR2/ESR2 and PR4/ESR4 | Moderate | Medium | Regional | Moderate |
| C | OHS/ Labour and Working Conditions client compliance | Moderate | Long | Regional | Moderate |
| C | OHS/Labour and working Conditions during construction | High | Medium | Regional | High |
| C,O | Supply Chain Management | Moderate | Long | Regional | High |
| O | OHS/Labour and working conditions during operation | | | | Moderate |

Table 8-14: Assessment matrix occupational health and safety, labour

8.4.5. Economic Development, Employment and Local Value Creation

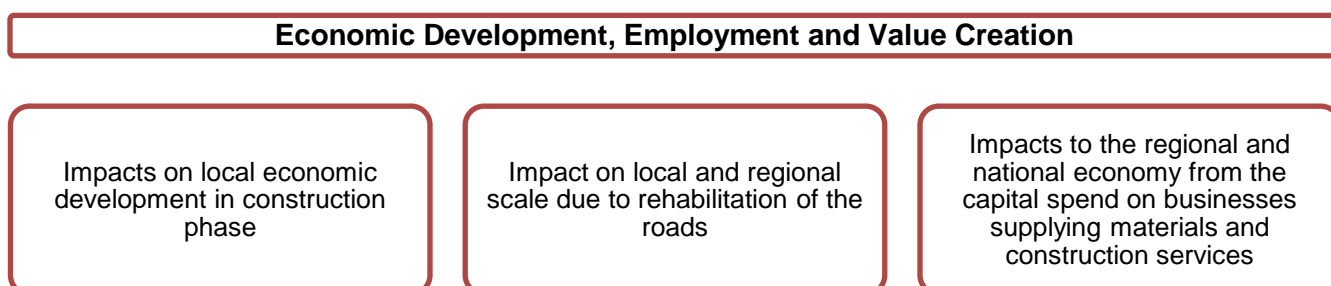


Figure 8-7: Economic Development, Employment and Value Creation

Positive social and economic impact on the local and regional scale due to increased speed of automobile transportation, positive impact on economic activity due to better road conditions, increased safety for drivers and residents of the villages located along the road, as well as travel time savings. Improved road conditions would create additional development opportunities for local agricultural companies and for trade development, including international trade.

The rehabilitation of the access road to the border crossing point Galati - Giurgiulești - Reni and the construction of the bypass road of Giurgiulești village with a special parking lot for trucks is an important element that will contribute to boosting the development of socio-economic infrastructure local, regional and national.

Impacts on Economic Development, Employment and Local Value Creation

Impact 1: Increased Regional and National Economic Activity Due to Improved Road Performance

Rehabilitation of the M3—including improved pavement, safer junctions, and the Giurgiulești bypass—enhances travel speed, reduces journey times, increases transport reliability, and strengthens trade connections to Romania and Ukraine. These improvements stimulate economic growth, facilitate agricultural and industrial competitiveness, and enhance international trade.

Mitigation / Enhancement Measures

- **Traffic Efficiency Optimisation Measures** Ensure design of intersections, bypasses, and ramps follows national standards to maximise travel-time savings, implement temporary traffic management plans during construction to reduce delays, maintain road signage and markings to sustain long-term safety improvements.
- **Local Business Access Support** Maintain access to agro-industrial facilities, fuel stations, storage areas, and logistics points during construction. Provide advance notices and signage for temporary diversions.
- **Cross-Border Coordination** Coordinate with Customs/Border Police to ensure seamless operation of the Giurgiulești access road and special truck parking area.

Impact 2: Increased Revenue for Local and National Suppliers

Project capital expenditure generates significant demand for aggregates, concrete, steel, asphalt, PPE, machinery, transport services, site facilities, and security. This stimulates turnover, profits and expansion for suppliers, contractors, and service providers. Secondary impacts include increases in business activity for accommodation, food services, and retail.

Mitigation / Enhancement Measures

- **Local Supplier Engagement** Require Contractors to prioritise sourcing from AoI and district suppliers where technically and economically feasible, maintain a public registry of procurement opportunities.
- **Fair and Transparent Procurement** Use open, competitive procurement aligned with PR2/PR10 principles, include ESG compliance criteria for suppliers (labour standards, OHS, ethical sourcing).
- **Supplier Capacity-Building** Offer briefings to local suppliers on technical specifications, safety requirements, and bidding procedures.

Impact 3: Short-Term Employment Creation During Construction

The Project is expected to generate **direct, indirect, and induced** employment:

- **Direct jobs:** machine operators, drivers, welders, carpenters, electricians, steel fixers, environmental and OHS staff, security personnel.
- **Indirect jobs:** suppliers of aggregates, asphalt, concrete, fencing, fuel, PPE, machinery, transport, and services.
- **Induced jobs:** accommodation, catering, small commerce, vehicle repair, transport services.

Mitigation / Enhancement Measures

- **Local Hiring Prioritisation** Require Contractors to prioritise Aol residents, followed by district-level workers, then national workers. Encourage 30–40% of unskilled positions to be filled locally.
- **Coordination with LPAs and Employment Agencies** Joint mapping of available labour pools (unemployed, seasonal workers, women seeking jobs, youth). LPAs to disseminate job notices and pre-identify candidates.
- **Fair Employment Practices** No recruitment fees; transparent contracts; written terms aligned with the Labour Code. Accessible worker grievance mechanism.
- **Workforce Upskilling and Training** Induction training (OHS, traffic management, environmental rules). On-site mentoring for semi-skilled roles. Certification opportunities in equipment operation, concrete works, flagging.
- **Inclusion Measures for Vulnerable Groups** Simplified application procedures, outreach via social workers to low-income households, women, and youth, Gender-sensitive hiring and non-discrimination policy.

Impact 4: Risk of Unequal Access to Job Information

If communication channels are not inclusive or transparent, some residents—particularly elderly persons, women, low-income households, or households without internet access—may not hear about job openings.

Mitigation / Enhancement Measures

- **Local-Level Job Advertising** Notices at mayor's offices, cultural centres, libraries, and bus stops, posts on local Facebook/WhatsApp/Viber groups, Use of local radio where available.
- **District/National Communication** Job listings through ANOFM and national recruitment portals (Rabota.md, JobList.md).
- **Contractor Communication Mechanisms** Dedicated employment webpage, announcements via the Community Liaison Officer (CLO), job fairs in Ialoveni, Cimişlia, Cahul.
- **Accessible Formats** Bilingual materials (Romanian/Russian), easy-to-read information sheets.

Impact 5: Temporary Economic Disruption to Local Businesses

Business units along the corridor—shops, workshops, agro-producers—may face temporary reductions in access or visibility due to construction works.

Mitigation / Enhancement Measures

- **Business Access Management** Maintain at least one open access route at all times, provide alternative pedestrian and vehicle routes, advance notifications for closures (minimum 7–14 days).
- **Signage and Visibility Measures** Temporary directional signs for businesses, maintaining safe pedestrian access to commercial premises.
- **Engagement with Affected Businesses** Regular meetings with shop owners and service providers, rapid grievance response mechanism for economic complaints.

6. Monitoring and Reporting Measures

Impact 6: Need for Continuous Oversight of Employment and Economic Benefits

Without systematic monitoring, local hiring targets may not be met, and vulnerable groups may remain excluded.

Mitigation / Enhancement Measures

- **Mandatory Contractor Reporting (Monthly)** Number of workers hired and % local vs district vs national, breakdown of skilled vs unskilled workers, gender and age disaggregation, induction and training sessions completed, worker grievances logged and resolved.
- **Independent Audits** Periodic labour and OHS audits by the PIU/AND, compliance checks for supplier labour practices.
- **Feedback Loops with Communities** CLO to provide regular updates to LPAs, issues raised by communities to be logged and addressed.

| Phase | Impact | Intensity | Duration | Extent | Significance of Impact |
|-------|-------------------------------|-----------|----------|----------|------------------------|
| C,O | Regional economic development | High | Long | Regional | High Positive |
| C | Capital expenditure benefits | Moderate | Medium | Regional | Moderate |
| C | Employment generation | High | Medium | Regional | High |
| C | Unequal access to job info | Moderate | Short | Local | Low |
| C | Temporary business disruption | Moderate | Short | Local | Low |
| C | Vulnerable group exclusion | Moderate | Short | Local | Low |
| C, O | Weak monitoring | Low | Medium | Regional | Medium |
| C,O | Pressure on local services | Moderate | Medium | Local | Medium |

Table: Assessment matrix economic development

8.4.6. Historical and Cultural Heritage

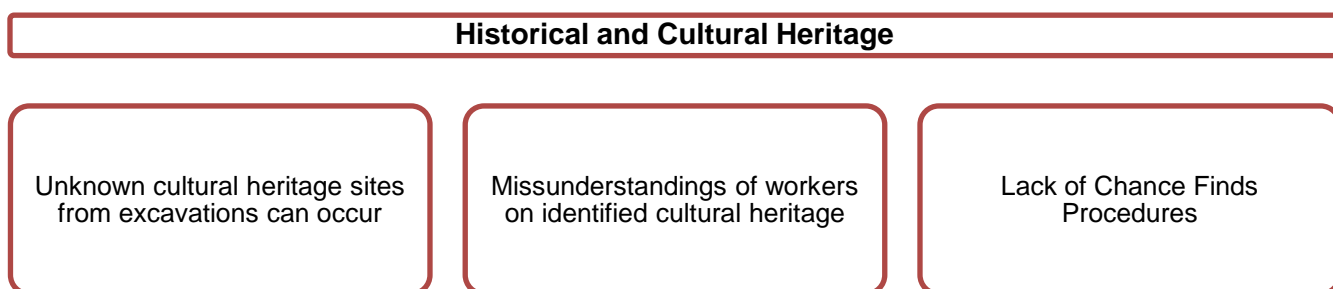


Table 8-15: Historical and Cultural Heritage

The Project area is predominantly located on an existing road corridor (Lots 1–3), with only Lot 4 involving a short new alignment. The probability of encountering unknown archaeological heritage is therefore low. Cultural heritage in the Republic of Moldova is diverse and widely dispersed, with thousands of registered sites including archaeological settlements, medieval fortifications, churches, memorial monuments, natural reserves, and ethnographic assets.

The exact locations of the monuments and their legally established protection zones are situated at a considerable distance from the project alignment and its area of influence as described in baseline chapter 4.9 including table 4-42. Therefore, there is no spatial overlap or direct interference between the construction works and these cultural and memorial sites.

Consequently, all monuments and churches identified within the Project area will be fully preserved, and their protection zones will remain unaffected by the road construction, rehabilitation, or operation activities.

The only potential impacts are indirect and minor in nature, such as a temporary increase in traffic volume or noise levels within localities. However, these are not expected to endanger either the physical condition or the symbolic value of the monuments.

A historical cannon—originally discovered beneath the bridge near the customs area and installed adjacent to the M3—lies close to the current road corridor.

The local council has initiated discussions to relocate it into the central memorial complex, next to:

Monument in memory of the fellow villagers fallen in the war (1941–1945), and

Monument at the common grave of three soldiers fallen in the war (1941–1945).

This relocation is community-led and unrelated to the Project's impacts.

Potential Impacts on Known Cultural Heritage

Construction Phase

- No direct physical impacts on registered monuments or churches, as all are located well outside the Project footprint.
- No disturbance of legally defined protection zones.
- Temporary, minor, and indirect impacts may occur in nearby settlements:
 - short-term increase in traffic,
 - noise and vibration during material transport,
 - dust emissions affecting aesthetic perception but not structural integrity.
- These impacts are reversible and limited in spatial extent.

Operation Phase

No direct or indirect impacts expected. Noise and traffic flows will remain within legal norms and will not affect cultural property.

Potential Impacts on Archaeological Resources

Because the Project largely follows an existing road corridor, ground disturbance is limited and the risk of encountering unknown artifacts is low.

Lot 4 involves new ground disturbance, but no registered site is located within the alignment.

Risk of chance finds is categorized as low-to-moderate, typical for linear infrastructure in a culturally rich region.

Intangible Cultural Heritage

No festivals, rituals, or cultural practices are located within the Project's area of influence. Events and local traditions in the South Development Region will not be disrupted by construction.

Mitigation measures

Avoidance and Protection

- No works within monument protection zones:
 - All construction activities, material storage, machinery parking, and worker camps must be located outside the 100–500 m legal protection buffer zones of registered cultural assets.

- **Marking sensitive areas:**
Geospatial coordinates of archaeological sites will be provided to the Contractor; these areas must be physically marked, fenced, and avoided.
- **Prohibition of ground disturbance in high-sensitivity zones:**
Particularly for Trajan's Wall (Valul lui Traian) in Lot 2—no excavation, trenching, or material removal is allowed.

Chance Finds Procedure (mandatory)

A formal Chance Finds Procedure (CFP) must be implemented, including:

- Immediate cessation of works if any artefact, structure, skeletal remain, ceramics, brick foundations, or unusual stratigraphy is discovered.
- Securing the area (minimum radius of 15–20 m) and preventing unauthorized access.
- Immediate notification of: National Archaeology Agency, Construction Supervision Engineer (FIDIC Engineer), Employer (Project Implementation Unit / NRA).
- Documentation of the find: Photographs, GPS coordinates, brief description, and circumstances.
- Archaeological evaluation: Works may resume only after written authorization from the competent authority.

Good Construction Practices

- Dust control near village centres, memorial zones, and churches to avoid affecting aesthetics and visitor experience – water spraying, covering trucks, speed limits.
- Noise and vibration management in settlement areas: No heavy machinery during night-time; Use of low-vibration equipment where feasible; Speed restrictions on trucks near cultural structures.
- Traffic management to avoid congestion near churches, memorials, cemeteries, or festival areas—especially during public events.
- Avoiding obstruction of access to memorial sites during commemorative ceremonies (e.g., village holidays).
- No storage of materials or spoil heaps near historic or archaeological sites.

Contractor Training and Awareness

- Cultural heritage induction training for all workers: Basic recognition of archaeological artefacts; Protocol in case of a chance find; Prohibition of removing artefacts.
- Toolbox talks held monthly to reinforce heritage protection obligations.

Mitigation Measures During Operation

- Protection of Monuments in Nearby Localities
- Monitoring of vibration levels in sensitive areas close to the road (e.g., Bacioi church, Ciucur-Mingir monuments at 0.35 km), if requested by local authorities.
- Traffic calming in village centres to maintain appropriate speeds and reduce potential indirect impacts on cultural sites.

Long-Term Preservation

Avoid siting new utilities or road extensions within legally protected monument zones without formal cultural heritage clearance. Engagement with local authorities when cultural festivals require temporary traffic rerouting. Measures Related to the Giurgiulești Cannon Monument, The Project will not interfere with the relocation activities.

- Contractor shall ensure no accidental damage during construction by:
- Maintaining distance from the monument,
- Using physical barriers or signage
- Coordinating with the Village Hall prior to works nearby

| Phase | Impact | Intensity | Duration | Extent | Significance of Impact |
|-------|---|-----------|----------|----------|------------------------|
| C | Direct impact on unknown monuments | Low | Short | Local | Low |
| C,O | Indirect dust/noise impact on village centres | Low | Short | Local | Low |
| C | Impact on archaeological sites | Low | Short | Local | Low |
| C | Chance finds during excavation | Low | Medium | Limited | Low |
| C | Impact on intangible heritage | Low | None | National | Medium |

Table 8-16: Assessment matrix historical and cultural heritage

8.4.7. Assessment matrix on potential socio-economic assessment

The assessment matrix presented below summarises the pre-mitigation significance of environmental and social impacts associated with the M3 Road Project across the four main thematic areas: Land Acquisition and Economic Displacement, Community Health, Safety, and Welfare, Occupational Health and Safety / Labour Conditions, and Cultural and Historical Heritage.

The matrix represents pre-mitigation impact levels. The assessment matrix clearly shows the following:

- Construction phase impacts are more significant than operational impacts—typical for linear infrastructure projects;
- Community health, safety, and OHS risks are the highest pre-mitigation and require priority management;
- Land acquisition impacts are moderate but manageable through PR5-compliant processes;
- Cultural heritage risks are low, and properly addressed through Chance Finds;

After applying mitigation measures—such as: RAP and compensation frameworks, Traffic Management Plans, Community engagement and GRM, OHS Management Plans (in line with PR2/PR4), Dust/noise controls, Chance Finds Procedure, Worker Code of Conduct, Road safety improvements and other Management Plans reflected in **ESMP** - the significance of most impacts is expected to decrease. After mitigation, most impacts reduce to Low or Negligible, demonstrating the effectiveness of the proposed **ESMP measures**.

How Residual Impacts Are Reflected: High impacts (e.g., community health and safety during construction) will typically reduce to Moderate or Low with proper controls. **Moderate impacts** (e.g., land acquisition, access restrictions) will reduce to Low provided compensation, timing coordination, and communication measures are followed. **Low cultural** heritage impacts generally reduce to Negligible after mitigation. Long-term **High Positive impacts** (community welfare due to improved road infrastructure) will remain positive and unchanged.

Residual impacts will be presented in a separate post-mitigation table, showing the effect of mitigation measures relative to the pre-mitigation baseline.

| Phase | Impact | Intensity | Duration | Extent | Significance of Impact |
|----------|--|-----------|-------------|----------|------------------------|
| 1 | Land Acquisition and Economic Displacement | | | | |
| C | Permanent land acquisition | Moderate | Long-term | Local | Moderate |
| C | Temporary land acquisition | Low | Medium-term | Local | Low |
| C | Temporary economic displacement | Moderate | Short-term | Local | Low |
| C | Permanent economic displacement | Moderate | Long-term | Limited | Moderate |
| 2 | Access and traffic restrictions | | | | |
| C | Access & Severance effects to communities (Limited Access and Loss of access) | Moderate | Medium-Term | Local | Moderate |
| C | Impacts to local residents and businesses from temporary road traffic deviations and access restrictions | Moderate | Medium-Term | Local | Moderate |
| C | Road traffic and Road Safety (public transport users, road users, and pedestrians) | High | Medium-Term | Local | High |
| O | Road traffic and Road Safety | Moderate | Long-Term | Local | Moderate |
| O | Limited Access | Low | Long-Term | Limited | Low |
| 3 | Community Health, Safety and Welfare | | | | |
| C | Community Health during construction (dust, noise, vibration, worker community interaction) | High | Medium | Local | High |
| O | Community Health during operation | Moderate | Long | Local | Moderate |
| C | Community Safety during construction | High | Medium | Local | High |
| O | Community Safety during operation | Moderate | Long | Local | Moderate |
| C | Community welfare during construction | Moderate | Medium | Local | Moderate |
| O | Community welfare during operation | High | Long | Regional | High Positive |
| 4 | Occupational Health Safety, Labour and working conditions | | | | |
| C | Occupational Health and Safety gap impacts | Moderate | Long | Regional | High |
| C | International Tender Procedure aligning with PR2/ESR2 and PR4/ESR4 | Moderate | Medium | Regional | Moderate |
| C | OHS/ Labour and Working Conditions client compliance | Moderate | Long | Regional | Moderate |
| C | OHS/Labour and working Conditions during construction | High | Medium | Regional | High |
| C,O | Supply Chain Management | Moderate | Long | Regional | High |
| O | OHS/Labour and working conditions during operation | Moderate | Medium | Local | Moderate |
| 5 | Economic Development | | | | |
| C,O | Regional economic development | High | Long | Regional | High Positive |
| C | Capital expenditure benefits | Moderate | Medium | Regional | Moderate |
| C | Employment generation | High | Medium | Regional | High |
| C | Unequal access to job info | Moderate | Short | Local | Low |
| C | Temporary business disruption | Moderate | Short | Local | Low |
| C | Vulnerable group exclusion | Moderate | Short | Local | Low |
| C, O | Weak monitoring | Low | Medium | Regional | Medium |
| C,O | Pressure on local services | Moderate | Medium | Local | Medium |
| 6 | Historical and Cultural Heritage | | | | |
| C | Direct impact on unknown monuments | Low | Short | Local | Low |
| C,O | Indirect dust/noise impact on village centres | Low | Short | Local | Low |
| C | Impact on archaeological sites | Low | Short | Local | Low |
| C | Chance finds during excavation | Low | Medium | Limited | Low |
| C | Impact on intangible heritage | Low | None | National | Medium |

Table8-17: Assessment matrix on potential socio-economic impacts

8.5. Cumulative Impacts

Several ongoing or planned projects within the Project's Area of Influence may generate cumulative environmental and social impacts when considered together with the proposed M3 Road Rehabilitation Project. These are summarised below:

1. **M3 National Road – Slobozia Mare Bypass (km 0+000 – km 16+598).** Construction works are currently underway, with a physical progress of approximately 40%. The project is implemented by the Government of the Republic of Moldova, through the National Road Administration, with financial support from the European Bank for Reconstruction and Development (EBRD). Completion is planned for spring 2026.
2. **Sanitation Infrastructure Project – Băcioi Commune.** In August 2025, a financing agreement was signed for the expansion and interconnection of the sewerage systems in Străisteni, Brăila, and Băcioi into a unified network. The project is funded by the Ministry of Infrastructure and Regional Development through RDA Chişinău. Detailed information is not yet available; the ESIA will evaluate potential overlaps and interactions with M3 reconstruction activities once technical data are disclosed.
3. **Botna River Desilting and Bank Stabilisation Works.** Planned by the National Agency “Apele Moldovei”, this project involves desilting of the Botna River and the planting of protective forest strips in the Horeşti commune area. The works aim to stabilise riverbanks, reduce erosion, and restore biodiversity through ecological corridors. Cumulative effects may occur locally where river works coincide with construction activities under Lot 1 of the M3.
4. **Construction of the Parking Area Adjacent to the Giurgiuleşti Bypass.** A new parking facility is planned near the bypass road to serve freight traffic approaching the border. Temporary cumulative effects may include increased construction traffic and localised air and noise emissions.
5. **Upgrading of the Customs Control Platform near Cîşliţa-Prut and Improvements at the Giurgiuleşti Border Crossing Point (CBP).** These works, supported under ongoing national programmes, aim to enhance cross-border processing capacity. Cumulative impacts with the M3 Project may arise from overlapping construction schedules and traffic rerouting near the border area.
6. **Expansion of the Giurgiuleşti International Free Port (GIFP).** In October 2019, Danube Logistics Holding B.V. and the EBRD approved an investment plan to increase the transshipment capacity of the port. Implementation of the port expansion, combined with M3 improvements and the bypass construction, may cumulatively increase freight volumes, traffic, and associated air and noise emissions in the Giurgiuleşti area.

The cumulative impacts of the M3 Road Rehabilitation Project were assessed using information from the project's Area of Influence and the additional developments identified in feasibility studies, design of works and public consultations with local representatives and. The most significant cumulative effects may arise from simultaneous or sequential construction activities, increased freight and passenger traffic, expanded industrial and port activities, and overlapping infrastructure developments across Lots 1–4. Key receptors include communities near Băcioi, Horeşti, Cimişlia, Ecaterinovca, Ciucur-Mingir, and Giurgiuleşti; sensitive institutions (schools, technical colleges); ecological corridors near the Botna River; and high-traffic zones near the

Giurgiulești Free Economic Zone and Border Crossing Point. These are summarised below:

Lot 1

1. Future Industrial Zone of Băcioi commune Km 16+381.

In public consultations with local representatives, Mayor emphasized that in the social and economic development strategies of the commune and due to industrial development of the area, is planned to construct an economic area, which will require access to M3 road.

Cumulative impacts expected with future land development (traffic, air, noise). Mitigation: integrate noise and access provisions in detailed design and coordinate with local urban plans.

2. Sanitation Infrastructure Project – Băcioi Commune.

In August 2025, a financing agreement was signed for the expansion and interconnection of the sewerage systems in Străisteni, Brăila, and Băcioi into a unified network. The project is funded by the Ministry of Infrastructure and Regional Development through RDA Chișinău. Detailed information is not yet available; the ESIA will evaluate potential overlaps and interactions with M3 reconstruction activities once technical data are disclosed.

3. Botna River Desilting and Bank Stabilisation Works

Planned by the National Administration “Apele Moldovei”, this project involves desilting of the Botna River and the planting of protective forest strips in the Horești commune area. The works aim to stabilise riverbanks, reduce erosion, and restore biodiversity through ecological corridors. Cumulative effects may occur locally where river works coincide with construction activities under Lot 1 of the M3.

Lot 2,3

1. Cimișlia Bypass Road planned construction

With a total length of 7.2 km, included in the “Moldova Roads III” project, is presently under preparation of the design documentation. The project is financed with the support of the European Investment Bank (EIB), and the deadline for the use of project funds has been extended until December 2028.

Ecaterinovca Residential Area - cumulative impacts for community can occur if bypass Cimislia will be developed at the same time with M3 lot 2 extension

Cimislia Technical school - Cumulative impacts can occur if bypass Cimislia will be developed at the same time with M3 lot 2 extension. Mitigation: controlled access, speed limits near school zone, and engagement with school administration.

Cimișlia Residential Area - Cumulative impacts possible if other sections are under construction concurrently. Mitigation: controlled access, speed limits near school zone, and engagement with local administration.

Gymnasium and Stadium Ciucur-Mingir - Cumulative impacts possible if Cimislia bypass and local road works occur simultaneously. Mitigation: safe pedestrian crossings, fencing, information to school management, and scheduling of high-noise works outside school hours.

Lot 4

1. Expansion of the Giurgiulești International Free Port (GIFP).

In October 2019, Danube Logistics Holding B.V. and the EBRD approved an investment plan to increase the transshipment capacity of the port. Implementation of the port expansion, combined with M3 improvements and the bypass construction, may cumulatively increase freight volumes, traffic, and associated air and noise

emissions in the Giurgiulești area.

In the Giurgiulești area, potential cumulative impacts arise from the Giurgiulești International Free Port (PILG), which hosts about 40 economic operators. Air-quality monitoring within the port is performed by ÎCS Danube Logistics SRL, the general investor and operator. Other local emission sources include the passenger port and railway station.

Residents of the Free Economic Zone (Giurgiulești FEZ) - Cumulative impacts expected with other transboundary developments. Mitigation: enforce speed control, implement dust suppression, and ensure continuous community health and safety communication.

2. Upgrading of the Customs Control Platform near Cîșlița-Prut and Improvements at the Giurgiulești Border Crossing Point (CBP).

These works, supported under ongoing national programmes and IFI support, aim to enhance cross-border processing capacity. Cumulative impacts with the M3 Project may arise from overlapping construction schedules and traffic rerouting near the border area. Cumulative impacts may occur due to concurrent works on the M3 Chișinău–Giurgiulești road (Terminal Customs Facilities) near Cîșlița-Prut and nearby infrastructure. Mitigation: maintain safe access, monitor noise and air quality, provide timely information to residents.

3. M3 National Road – Slobozia Mare Bypass (km 0+000 – km 16+598).

Construction works are currently underway, with a physical progress of approximately 40%. The project is implemented by the Government of the Republic of Moldova, through the National Road Administration, with financial support from the European Bank for Reconstruction and Development (EBRD). Completion is planned for spring 2026.

4. Construction of the Parking Area Adjacent to the Giurgiulești Bypass.

A new parking facility is planned near the bypass road to serve freight traffic approaching the border. Temporary cumulative effects may include increased construction traffic and localised air and noise emissions.

Cumulative impacts may intensify air emissions, noise, traffic congestion, safety risks, and hydrological pressures. With appropriate coordination, phasing, and targeted mitigation—especially in school zones, residential areas, and port-adjacent communities—most cumulative impacts can be managed to acceptable levels. Most relevant cumulative impacts:

Air quality & human health: incremental emissions from increased vehicle numbers plus emissions from adjacent projects degrading airshed quality.

Noise and community disturbance: overlapping construction periods or sequential projects raising background noise levels above acceptable thresholds.

Hydrology & sediment: multiple drainage modifications and land disturbances raising sediment loads and altering flood flows.

Biodiversity & connectivity: successive habitat loss/edge effects from repeated roadworks that break ecological corridors and reduce viable habitat patches.

Socio-economic: incremental traffic risk, changes to local access patterns, and cumulative economic displacement or land-value changes.

Scope of assessment was determined through spatial and temporal parameters. Spatial scope: consider three nested zones:

1. Immediate footprint (0–50 m) — direct construction disturbance, borrow pits, temporary stockpiles and localized drainage changes.
2. Local corridor (50 m–2 km) — sensitive receptors adjacent to the road (homes, schools, wetlands, streams, wildlife corridors) and cumulative traffic emissions along the corridor.
3. Catchment and landscape scale (>2 km) — watershed impacts, migration routes, and landscape connectivity where multiple projects may combine.

Temporal scope is determined as: **Construction phase:** short-term additive impacts (noise, dust, traffic disruption). **Operational phase** (short–medium term, 0–10 years): traffic increases, incremental air/noise emissions, sedimentation patterns. **Long-term (decades):** land-use change enabled by improved access, habitat fragmentation, and compounded water resource stress.

Recommendation to project implementation actors: NRA, Contractors or Supervisor of cumulative projects.

Avoidance and planning: will manage sequence works to avoid temporal overlap with other nearby construction projects; phase activities to reduce simultaneous disturbance, avoid cumulative works in ecologically sensitive periods (e.g., fish spawning, bird nesting seasons).

Design and mitigation measures: Implement erosion and sediment control at all sites, and design drainage to maintain pre-project hydrology where feasible. Use low-noise construction equipment and anti-idling rules; apply dust suppression and wheel-wash systems. Where habitat connectivity is at risk, include wildlife crossings, riparian buffers, and re-vegetation with native species.

Monitoring, thresholds and adaptive management: Establish cumulative-effect indicators (e.g., background PM_{2.5}, peak noise levels, turbidity at downstream monitoring points, presence/absence of focal species) and baseline monitoring before works start. Define clear thresholds and management actions (stop-work, additional mitigation) when thresholds are exceeded.

Stakeholder coordination and governance: Create an inter-project coordination mechanism with nearby authorities/developers to share schedules, monitoring data, and mitigation commitments. Publicly disclose cumulative assessment results and the monitoring plan; involve communities in identifying hotspots and validating baselines.

Offsets and compensation: Use offsets only when residual significant cumulative impacts remain after avoidance, minimization and restoration; design offsets to be landscape-scale and long-term.

ESMP recommendations:

Rapid screening using the study-area nesting above; flag Valued Environment and Social Components VECs requiring full CIA (Cumulative Impact Assessment) based on IFC Good Practice Handbook (2013).

- Compile a register of past/present/planned projects within the study area.
- Set up baseline monitoring for air, noise, water turbidity and key habitats prior to construction.
- Add an explicit cumulative impacts chapter/appendix to the EIA referencing the IFC six-step approach and national guidelines.
- Commit to a coordination committee (monthly) with other infrastructure implementers in the corridor.

| Lot | Key Cumulative Interactions | Main Receptors | Overall Impact Intensity | Notes / Key Mitigation |
|-------|---|--|--------------------------|--|
| Lot 1 | Băcioi industrial zone development; sanitation infrastructure project; Botna River desilting. | Băcioi community, Botna River corridor, road-adjacent receptors. | Moderate Impact | Coordinate works scheduling; integrate access and noise control; protect river corridor. |
| Lot 2 | Cimișlia bypass concurrent construction; local road works. | Cimișlia residents, Technical School, sensitive urban receptors. | Moderate Impact | Speed control, school-zone protection, traffic management. |
| Lot 3 | Overlap with Cimișlia and Ciucur-Mingir local road activities. | Ciucur-Mingir Gymnasium, residential areas. | Moderate Impact | Safe crossings, fencing, noise scheduling, community notification. |
| Lot 4 | Giurgiulești Port expansion; border-crossing upgrades; Slobozia Mare bypass works; parking area construction. | Port workers, FEZ residents, border traffic users. | High Impact | Multilevel coordination, dust/noise control, strict traffic safety controls. |

Table8-18: Cumulative Impacts by Lot

8.6. Key positive impacts of the Project

The following positive impacts are described in qualitative terms, as expected improvements compared to baseline conditions. Quantitative impact significance and mitigation measures are presented in Chapter 5 (Environmental and Social Impact Assessment).

Current road sections experience limited capacity, uneven pavement, and localised congestion, especially near settlements such as Giurgiulești and Cimișlia, leading to longer travel times, safety risks, and higher vehicle operating costs. The rehabilitation of the M3 corridor will improve these conditions through modern design standards, drainage systems, and safety features.

The Project will generate significant social and economic benefits for local communities, businesses, authorities, and wider road users. It will contribute to local and regional development, enhance connectivity, and strengthen interregional and international trade relations.

The principal expected positive impacts include:

- Integration within national transport priorities.
- The Project is part of a wider program to improve national road network. The rehabilitation of the road will allow the traffic speed to increase, and improved connectivity will further facilitate the travel, exchange of goods and services between regions of Moldova, as well as international trade, which will have a positive effect on the regional and national economy. The Giurgiulești bypass section will help reduce congestion caused by heavy freight traffic accessing the International Free Port and customs terminal, improving local air quality and safety conditions. Improved transport efficiency
- The modernised road infrastructure will enhance travel reliability and reduce maintenance costs for residents, businesses, and public services, supporting more efficient movement of people and goods and improving access to social and economic facilities. Enhanced road safety and public health.
- Road safety improvements, such as traffic-calming measures, upgraded barriers and signage, improved lighting, and safer junction design, will significantly reduce accident risks for both drivers and pedestrians. Construction of a sustainable drainage system will prevent flooding, contributing to road longevity and better public health through reduced water stagnation and vector risks. The bypass will further reduce noise and

air pollution levels within Giurgiulești village, improving local living conditions. Reduced environmental impact and footprint.

- The integration of environmental mitigation and protection measures into the Project design will reduce environmental impacts compared to the current baseline, ensuring compliance with national and IFI environmental standards and minimising long-term degradation of air, water, and soil quality;
- Economic efficiency and fuel savings.
- Improved pavement conditions and road geometry will increase vehicle fuel efficiency, reduce wear and maintenance costs, and lower transport operating costs for users. Employment and local economic benefits
- The Project will create direct and indirect job opportunities and stimulate the local economy through procurement of goods and services during both construction and operation. Improved access for vulnerable groups.
- Enhanced road connectivity will increase access to health, education, and social services, particularly benefiting women, children, and elderly residents. Faster and safer travel will facilitate participation in community life and economic activities. Gender-responsive safety improvements.
- Installation of street lighting, rehabilitation of bus stops, and improved pedestrian infrastructure will create safer and more comfortable mobility conditions—especially for women, who are more frequent users of public transport. Tourism and local development opportunities.

Improved accessibility will increase the attractiveness of southern Moldova for tourism and leisure investment, complementing initiatives promoted by the South Regional Development Agency (RDA Sud) and local action groups (GAL). Development of tourism-related services and small businesses will provide new and lasting employment opportunities for local communities.

9. Management of Impacts and Issues

This section outlines the approach and measures established to manage, mitigate, and monitor the potential environmental and social impacts identified during the assessment phase of the project.

9.1. Air and climate change

To minimize air emissions and dust dispersion **during construction**, the following measures will be implemented:

- Regular watering of exposed surfaces, construction access roads, and material stockpiles, particularly during dry and windy weather;
- Covering of trucks transporting soil, sand, gravel, or waste materials;
- Limiting the speed of construction vehicles on unpaved surfaces;
- Regular maintenance of construction machinery and equipment to reduce exhaust emissions and ensure compliance with emission standards;
- Avoiding unnecessary idling of engines and ensuring the use of low-sulphur fuels;
- Implementing asphalt laying only under suitable meteorological conditions to minimize VOC emissions;
- Progressive site restoration after completion of works to prevent prolonged dust generation;
- Locating construction camps and asphalt plants at a safe distance from settlements and sensitive receptors, subject to local environmental approvals;
- Construction activities in the vicinity of the gymnasium in Ciucur Mingir village (Lot 3) will preferably be scheduled during school holidays to minimize potential exposure of children to elevated dust levels.

During the **operational phase** of the M3 road, the following measures are proposed to reduce air quality impacts within the project area:

- Ensure regular maintenance of vehicles and road maintenance machinery to minimize exhaust emissions and maintain fuel efficiency;
- Implement traffic management measures to avoid congestion and reduce idling time, particularly near intersections and settlements;
- Enforce speed limits to reduce dust emissions and resuspension of particulate matter;
- Promote the use of low-emission or fuel-efficient vehicles, including the installation of charging points for electric vehicles where feasible;
- Maintain road pavement in good condition to ensure smooth traffic flow and reduce fuel consumption and emissions;
- Monitor air quality (PM₁₀, PM_{2.5}, NO₂, CO) in sensitive receptors to ensure compliance with national and EU standards;
- Implement public awareness measures encouraging environmentally friendly driving behaviour, such as avoiding unnecessary idling.

The Project incorporates a range of engineering, environmental, and institutional measures to enhance resilience to climate change and extreme weather events. Engineering measures include the use of climate-resilient asphalt and concrete mixes, upgraded drainage systems, slope stabilization through bioengineering,

flood protection for critical assets, and durable road markings and safety barriers designed to withstand temperature extremes and freeze–thaw cycles. Environmental measures focus on reforestation, establishment of vegetative belts, rehabilitation of natural drainage channels, and use of recycled or low-carbon materials in line with EU Green Deal principles.

Institutional and operational measures will ensure the integration of climate-resilience criteria into all future NRA road projects, routine monitoring of pavement, drainage, and slope stability after extreme events, and capacity-building programs for engineers and contractors on climate adaptation and risk management. Cooperation with the State Hydrometeorological Service will support early warning and rapid response to floods, landslides, and heatwaves. These actions align with the National Strategy for Adaptation to Climate Change by 2030, the EU–Moldova Association Agreement, and the EBRD Green Economy Transition approach, promoting climate-proof, sustainable infrastructure.

Provided that all the above measures are effectively implemented and regularly monitored, no significant deterioration of ambient air quality is expected during the construction phase. The proposed mitigation actions will effectively minimize dust emissions, exhaust gases, and volatile compounds generated by construction machinery and material handling activities. Furthermore, scheduling of works near sensitive receptors—such as the gymnasium in Ciucur Mingir village—during school holidays will significantly reduce the potential exposure of children and local residents to elevated dust levels. Overall, with the application of these control measures, air quality impacts are anticipated to remain minor, localized, and temporary in nature.

9.2. Soil

Construction phase

- Identification and demarcation of land granted permanently and temporarily for road construction;
- Clear definition of the access routes to be used by long and/or heavy goods vehicles. These routes will be agreed with all relevant authorities in advance;
- In order to ensure a minimum impact on the environment, including the soil, the works shall be carried out in accordance with CP D.02.30:2023 Regulations on environmental protection in the design, construction, modernization, rehabilitation and maintenance of roads.
- Transportation means and construction equipment will use only the access roads;
- Construction waste management will be carried out considering the provisions of CP A.09.04.2014 Part I and Part II.
- The waste collection system during the construction works will be carried out in specially designated areas, and their disposal will be periodically carried out by specialized services in accordance with the contract concluded with the beneficiary;
- It is forbidden to wash, carry out repairs, maintenance work on means of transportation, machinery and equipment used on the construction site;
- Fuel or lubricant leaks due to accidental causes will be minimized by the use of a sand bed;
- The rims of all vehicles will be cleaned when exiting work areas when using public roads;

- Disposal according to the normative requirements and subsequent delivery of all types of waste formed during the construction and operation period for recovery/disposal to the authorized economic agents in the respective field, according to the provisions of Law no. 209/2016 on waste;
- Providing organized and safe drainage in areas with slopes over 2-3°;
- Circulation of construction equipment and placement of soil stockpiles only in the area temporarily granted for road construction;
- The works carried out in the area temporarily granted for road construction must be carried out with respect for the cleanliness of the territory;
- The territory must be protected from pollution by fuels and lubricants;
- On all land permanently alienated for road and infrastructure purposes, as well as on land temporarily alienated, a layer of fertile soil possessing favourable physical and chemical properties, with a particle size ranging from clay to sandy loam with a density not exceeding 1.4 g/cm³, shall be stripped and deposited in the form of rolls and piles. It is to be used for recultivation of temporarily alienated land, for the reinforcement of embankment slopes and gullies;
- In case it is impossible or unfeasible to use the earth obtained in the process of construction of the embankments, it should be used to fill in the tops of the gullies (once they are reinforced), erosion pits, etc.;
- Prior to stripping the topsoil, work will be carried out to remove stumps, bushes and stones. The stripping of topsoil will be carried out in warm and dry periods, and on agricultural land - after harvesting. Areas for storing fertile soil should be placed on high and dry sites;
- To prevent erosion and loss of fertility the stockpile will be stabilized with fast-growing vegetation, e.g. grass;
- Planning of the road area after completion of the works to ensure surface water discharge;
- At the end of the construction works, the territories are cleaned and brought into a suitable condition for their future use as intended.
- Excavation works for the Cîșlița-Prut borrow pit will commence only after obtaining all the required permits. The topsoil layer will be stripped and stored separately to preserve its quality for future use. Spoil heaps will be protected with drainage ditches to prevent erosion and runoff. Upon completion of the extraction activities, the stored topsoil will be reused for site rehabilitation. The slopes of the borrow pit will be constructed with a maximum gradient of 1:3 to ensure stability and minimize erosion risks.

Operation phase

- Ensuring the proper management of waste with the rhythmic disposal of waste without the use of intermediate landfills;
- Ensure the stability of the embankment against erosion from atmospheric precipitation and mechanical loads;
- Reinforcement of embankment slopes by grass seeding on a fertile layer;
- Landslides that may occur due to frequent vibration should be removed immediately as they occur to prevent further road failure and loss of topsoil properties;
- Proper maintenance of the road section during the period of operation, in particular cleaning and emptying of the decanters with oil product separators and collection of improperly deposited household waste.

After implementation of all mitigation measures, residual impacts on soil are expected to be minor and

localized. Permanent impacts will remain limited to the footprint of the road and related structures, while temporarily affected areas will be reclaimed and restored to their initial productive state. The implementation of proper soil management and recultivation practices will ensure long-term stability and minimize negative effects on the soil environment.

9.3. Water

Construction Phase

To prevent accidental leaks and other emergency situations that could cause water pollution, the Contractor shall implement appropriate management and control measures before and during the works. The following actions are required:

- Emergency prevention and pollution control plan: Before the commencement of construction activities, an Emergency Prevention and Pollution Control Plan shall be developed and implemented. The plan shall include training for all site personnel on the proper operation and maintenance of machinery, vehicles, and equipment to prevent water contamination;
- Water quality monitoring: Baseline and periodic monitoring of surface water and shallow groundwater wells located near the road shall be carried out to detect any potential contamination caused by construction activities.
- Waste management: Domestic waste will be collected in a designated area, using separate containers for each waste category (plastic, glass, cardboard, household waste). Waste will be periodically removed by an authorized waste management company;
- Sanitation facilities: Portable ecological toilets shall be installed for site personnel. These facilities will be regularly emptied and maintained by authorized service providers;
- Vehicle washing and maintenance: Washing of construction machinery and vehicles will be performed only in designated, impermeable washing areas equipped with drainage and oil separators to prevent groundwater contamination. Repair and maintenance of vehicles and machinery shall take place exclusively in specially arranged, contained areas;
- Storage of excavated materials: Temporary storage of excavated soil and materials will be located outside natural drainage areas to prevent erosion or runoff into watercourses;
- Stormwater and runoff management: Appropriate site drainage will be ensured to avoid ponding or uncontrolled runoff. Measures shall be implemented to prevent leakages or discharge of concrete slurry, process water, or other potentially polluting substances into water bodies. Particular attention shall be paid during periods of heavy rainfall or snowmelt, when the risk of runoff, erosion and sediment transport towards nearby water bodies may temporarily increase;
- Surface water redirection: Surface runoff from the road will be channelled using side ditches located in lower relief areas. Direct discharge of stormwater into natural watercourses shall be avoided. Retention or sedimentation basins will be constructed at discharge points near watercourses to reduce sediment and pollutant loads;

- Concrete management: Ready-mixed concrete will be used to minimize on-site mixing and reduce the risk of spills and wastewater generation.

The implementation of these measures shall be supervised by the Contractor's Environmental Manager, with regular reporting to the Beneficiary and the Supervising Engineer to ensure compliance with national legislation and EBRD environmental requirements.

Operation and Maintenance Phase

During the operational phase, the following measures will be implemented to ensure continued protection of water quality:

- Maintenance of drainage infrastructure: Stormwater drainage systems, culverts, and ditches shall be regularly inspected, cleaned, and maintained to ensure proper functioning and to prevent blockages or overflow.
- Emergency prevention and pollution control plan: A permanent plan for emergency response and pollution prevention shall be implemented by the operating entity. The plan will include procedures and staff training on equipment management, handling of fuels and lubricants, and response measures in the event of accidental spills, ensuring the prevention of surface or groundwater pollution.

Provided that all mitigation and control measures outlined above are effectively implemented and regularly monitored, no adverse impacts on the quality of surface or groundwater within the project area are anticipated. Furthermore, considering that the surface waters of the rivers within the project influence zone already exhibit elevated levels of pollution, the proposed construction activities are not expected to cause any further deterioration of the existing water quality status. Continuous monitoring and strict adherence to environmental management procedures will ensure the protection of both surface and groundwater resources throughout the construction phase.

9.4. Noise and vibration

Construction Phase

Informing the inhabitants of the communities (through meetings planned by the members of the working team and the LPA) about the construction works that will be carried out, namely: working hours - including transportation of materials - will be limited in the localities; in order to create as little inconvenience as possible for the communities and in case of unavoidable works outside working hours, the inhabitants will be notified in advance through the LPA.

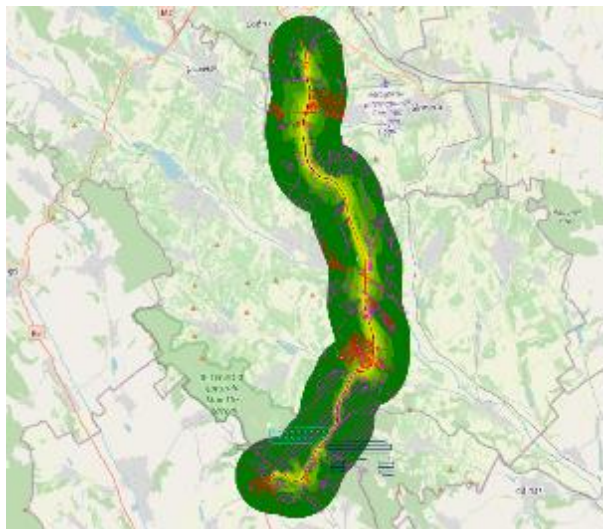
- The use of mobile noise-absorbing panels is recommended to protect species of conservation interest as well as sensitive receptors, particularly residential buildings located in the immediate vicinity of the project site. It is recommended that the mobile panels have a minimum height of 4 metres.
- the frequency of deliveries of construction materials by delivery vans and the timetable for carrying out the work will be established in such a way as to avoid overcrowding and high noise levels in the work areas;
- the use of work equipment/tools that generate as little noise as possible;
- isolating construction equipment that generates excessive noise/vibration.
- constant monitoring of noise and vibration levels during works;

- stopping work if the maximum permissible noise limits are exceeded;
- periodically checking machinery to ensure that it complies with permissible noise levels;
- for the transportation of construction materials, residential areas should be avoided as much as possible, and where through built-up areas, the speed will be limited to a maximum of 40 km/h;
- construction work will only be carried out during the day, outside rest days;
- suspension of construction activities during public holidays;
- installing noise-reducing acoustic screens near noise-sensitive areas such as buildings.

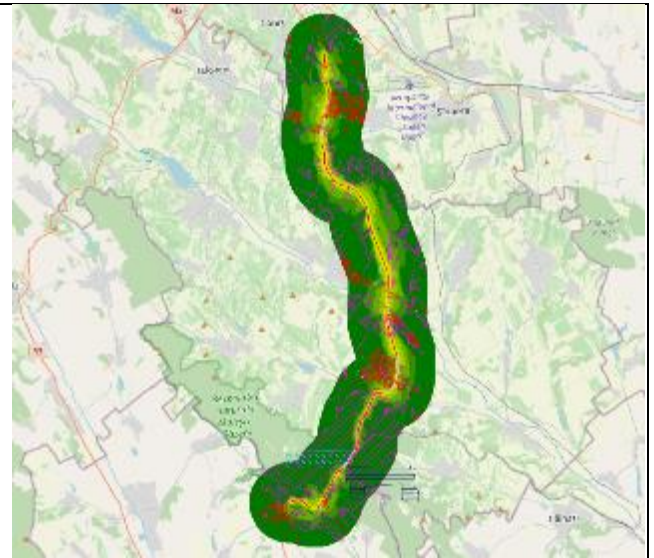
The movement of the machines on the road is accompanied by a vibration process acting through the road structure on buildings and structures located in the impact zone. Where heavy engineering will be used in conjunction with buildings (houses, walls, etc.), the vibrations could, in the worst case, lead to physical damage. In villages, where such risks cannot be avoided, the condition of some buildings that may be affected will be established before road construction, to compensate for damage resulting from construction.

The measures envisaged can significantly reduce the negative impact of noise and vibration on the population as well as on buildings and structures.

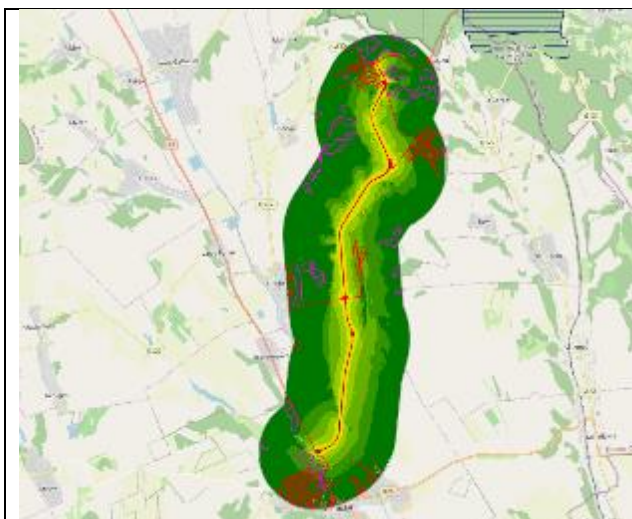
The noise modelling during the construction phase for daytime, evening, and night is shown in the figures below.



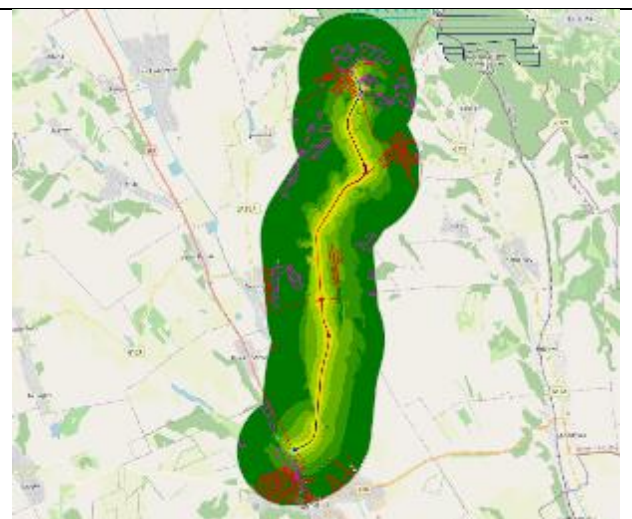
Lot 1 – Chişinău-Porumbrei (Without noise-absorbing panels)



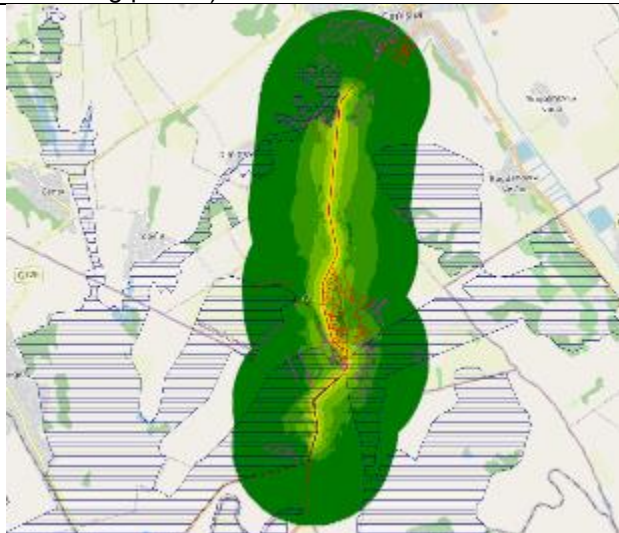
Lot 1 – Chişinău-Porumbrei (With noise-absorbing panels)



Lot 2 – Porumbrei-Cimișlia (Without noise-absorbing panels)



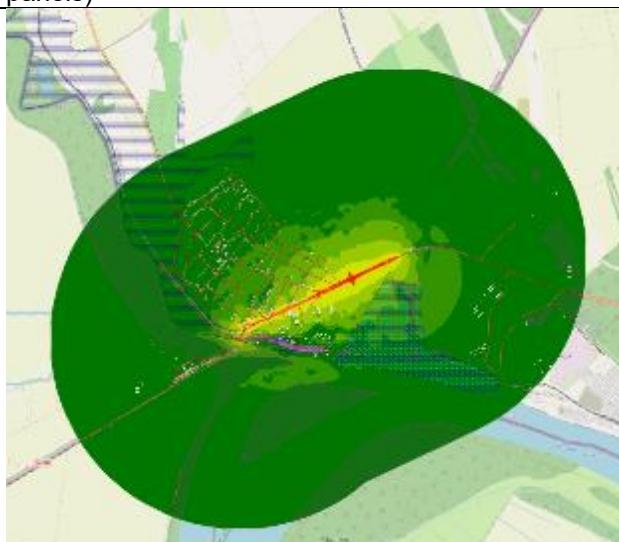
Lot 2 – Porumbrei-Cimișlia (With noise-absorbing panels)



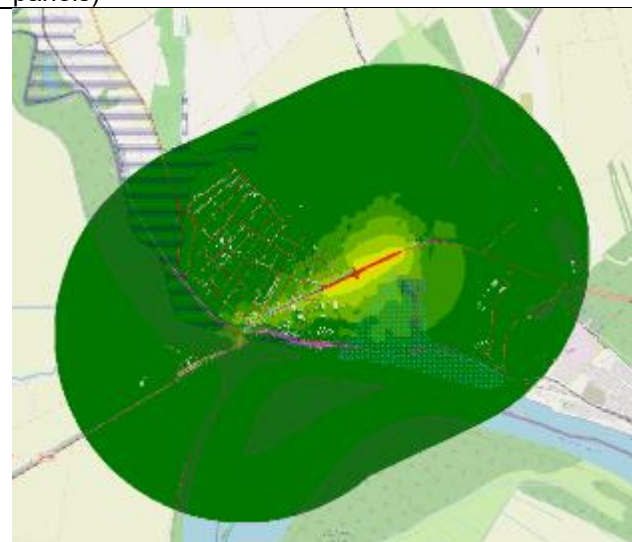
Lot 3 – Cimișlia-Comrat (Without noise-absorbing panels)



Lot 3 – Cimișlia-Comrat (With noise-absorbing panels)



Lot 4 – M3-M3.1 (Without noise-absorbing panels)



Lot 4 – M3-M3.1 (With noise-absorbing panels)

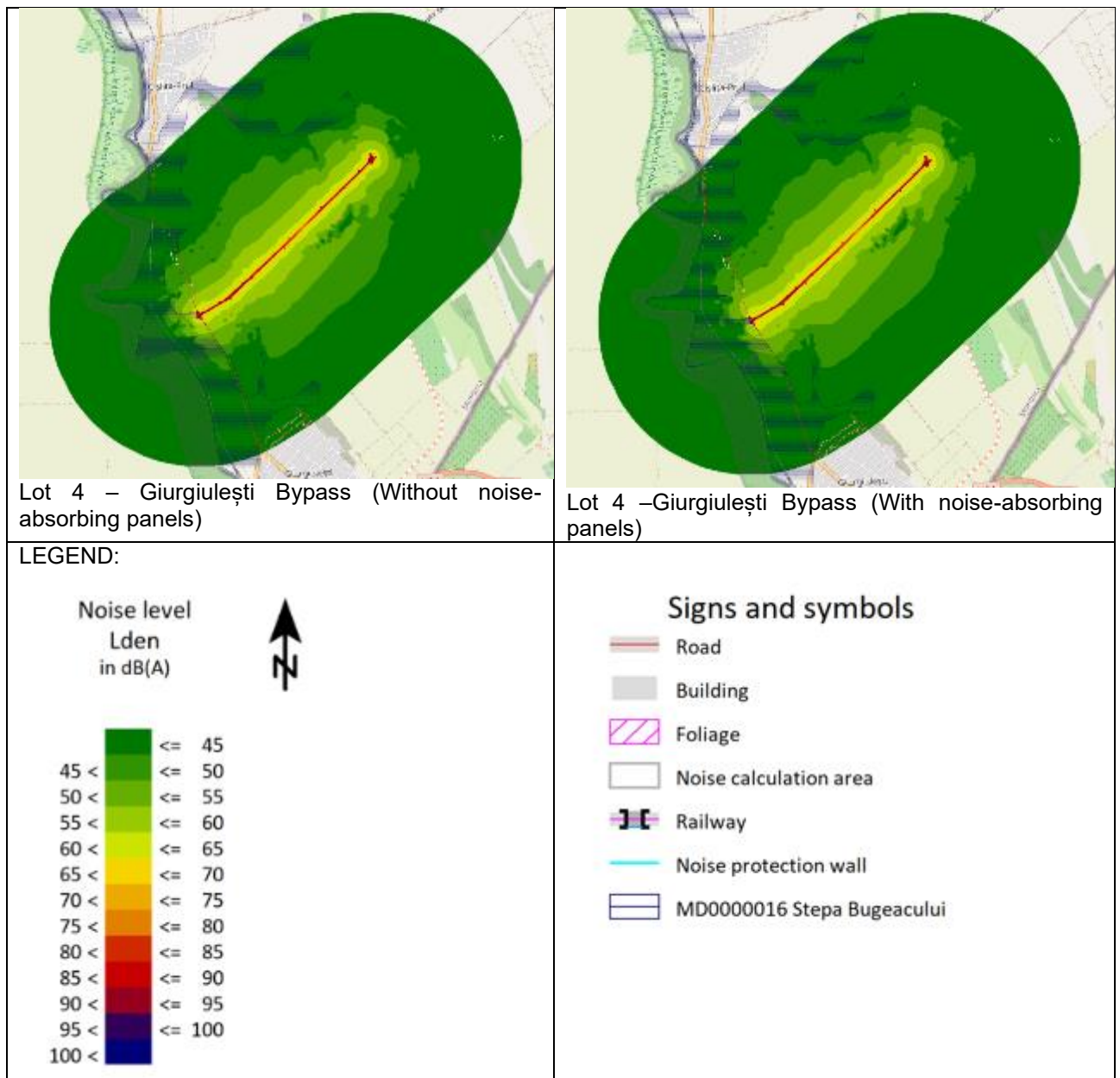


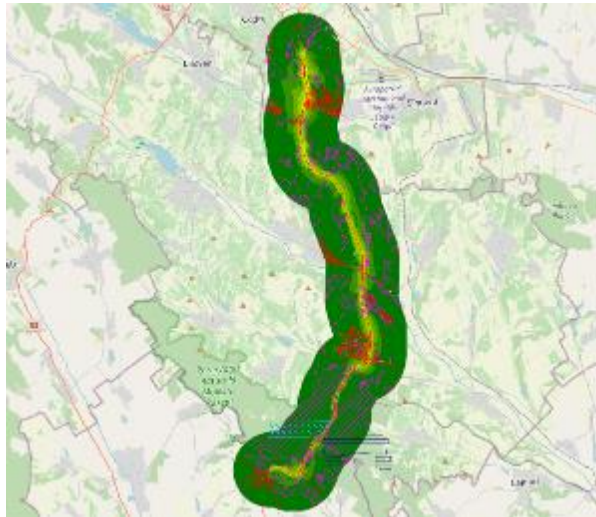
Figure 9-1: Noise modelling during construction phase

Operation and Maintenance Phase

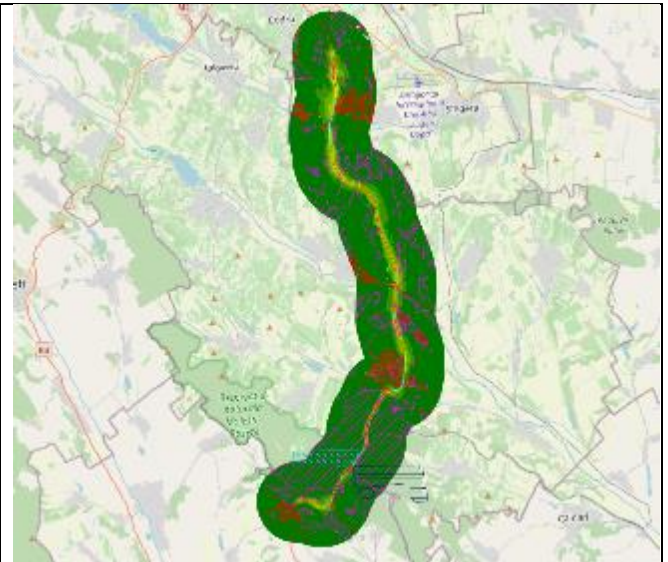
- Noise levels and air quality shall be measured at least at representative roadside receptors (inhabited areas) for a period of 2 years after construction.
- Installation and Maintenance of Fixed Noise-Absorbing Panels: For the operation phase of the M3 road, it is recommended to install permanent noise-absorbing panels with a height of 4 metres, positioned in areas with sensitive receptors.
- Technical Characteristics of the Panels: Acoustic simulations validated the effectiveness of Forster 20 panels made of treated wood. This type of panel was selected for its predominantly absorptive behaviour, with absorption coefficients specific to road noise protection applications.
- Additional Local Measures: The installation of panels generally results in a significant reduction of noise below the maximum permissible limits. However, in isolated cases where receptors are located very close to the road footprint and are topographically above the shielding angle (beyond the panels' maximum

efficiency), additional local analyses are recommended. In such cases, measures such as installing noise-absorbing screens directly at the boundary of the receptor's property can be implemented. These measures will be determined during the design stage, in accordance with the provisions of CP D.02.30:2023 "Roads and Bridges" – Regulations on environmental protection in the activities of design, construction, modernization, rehabilitation, and maintenance of roads, ensuring compliance with environmental standards and the adequate protection of sensitive receptors.

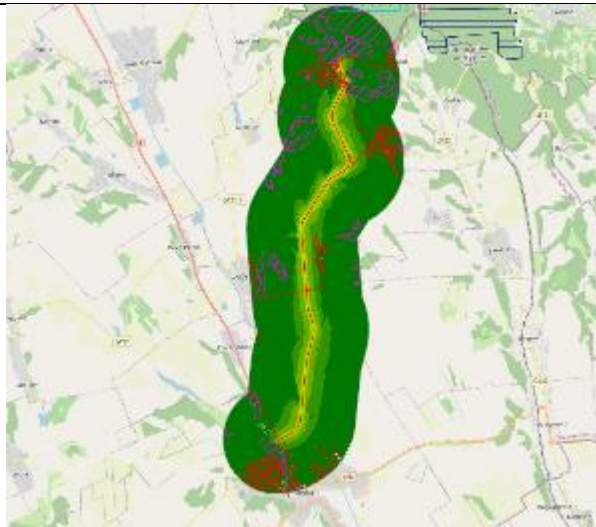
The noise modelling during the operation phase for daytime, evening, and night is shown in the figures below.



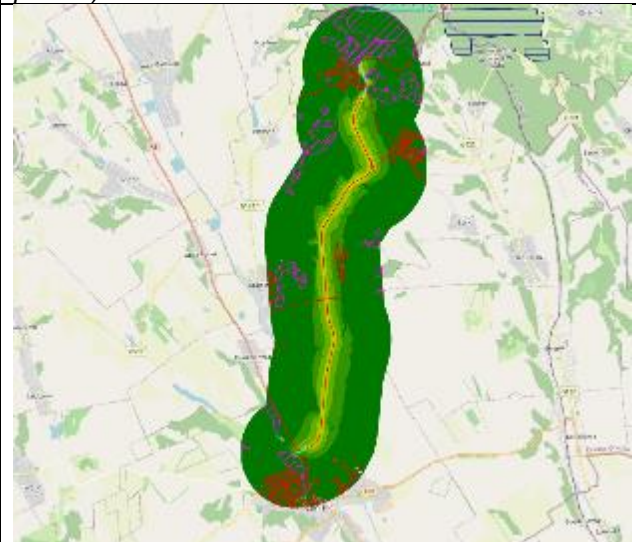
Lot 1 – Chişinău-Porumbrei (Without noise-absorbing panels)



Lot 1 – Chişinău-Porumbrei (With noise-absorbing panels)



Lot 2 – Porumbrei-Cimişlia (Without noise-absorbing panels)



Lot 2 – Porumbrei-Cimişlia (With noise-absorbing panels)

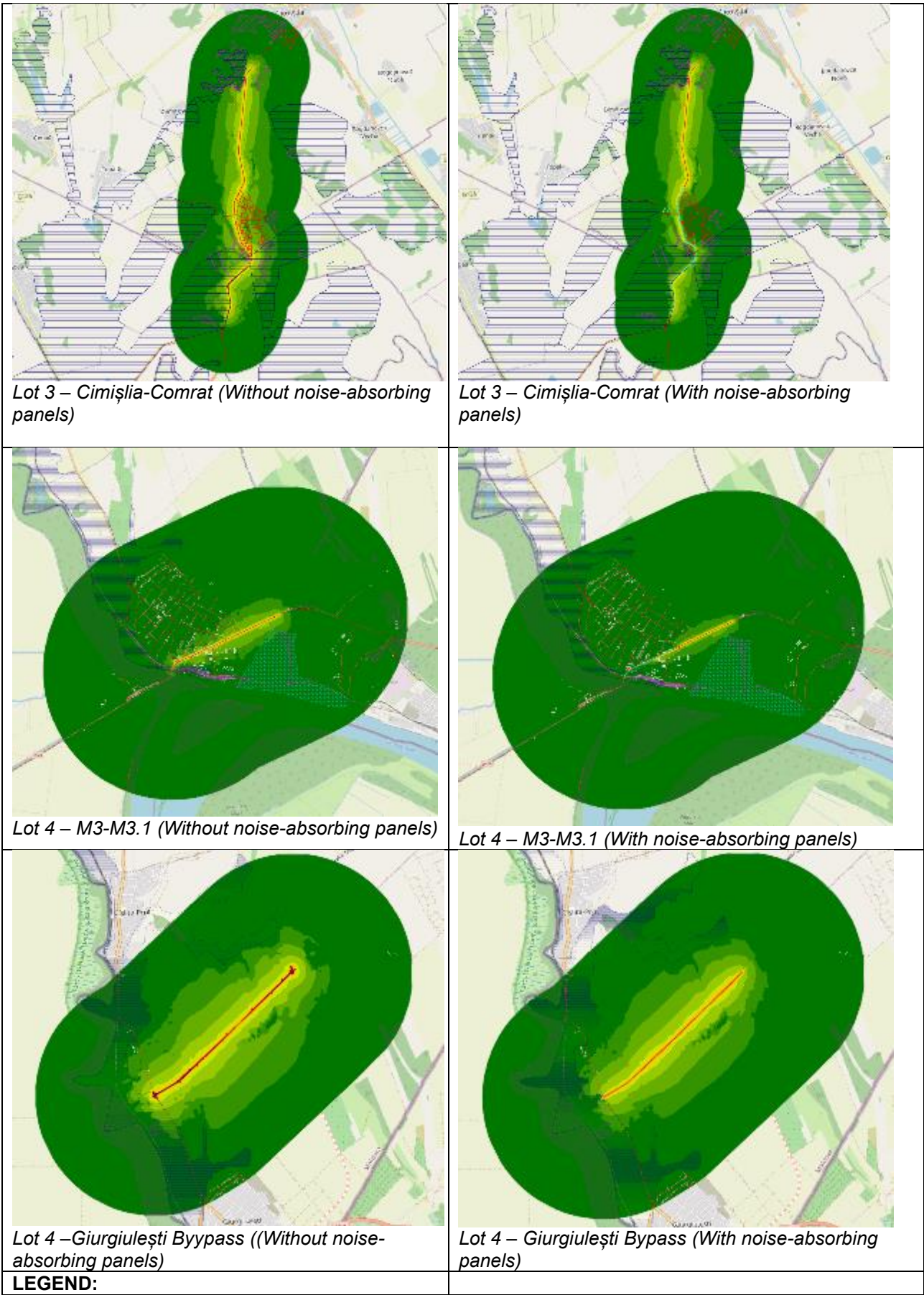




Figure 9-2: Noise modelling during operation phase

9.5. Waste

Construction phase

- In addition to implementing waste prevention strategies, the total amount of waste can be significantly reduced by implementing recycling plans.
- All solid waste must be collected separately; recyclable waste will be sent under a contract to specialised companies and household waste will be transported to an authorized landfill with the consent of the LPA in the region.
- Workers will be trained on good waste management practices.
- A waste collection system will be in operation to handle solid wastes, oily rags, and used fuel and lube oil filters in a leak-proof container that will be stored and disposed off at the landfill site, to ensure effective management of solid wastes at the Project site.
- Contaminated solid waste such as oily rags, used fuel filters, engine oil residues, etc. will be collected in a sealed container that will be stored and disposed of properly.

9.6. Biodiversity

Construction phase

Measures to avoid, reduce or improve the low or significant impact on fauna and flora at the construction phase:

- the deforestation of the trees and shrubs that fall under the scope of the project will be carried out only in the manner established by art. 40 of Law no. 1515/1993 on the protection of the environment, art. 35 of Law 591/1999 on green spaces of urban and rural localities, Law on the vegetable kingdom no. 239/2007 and GD no. 27 of 19.01.2004 on the authorization of felling in the forest fund and forest vegetation outside the forest fund;
- carrying out works with caution to exclude damage to forests and green areas on the side of the road;
- hire an environmental/biodiversity specialist for construction phase, who will be responsible for training, by a staff involved in the works near the Emerald Sites, NPAS, forests, other sensitive areas for biodiversity;
- not allowing temporary storage of construction materials, excavated soil, inert waste and other materials in the immediate vicinity of trees and shrubs (at least 1.5 metres);
- prohibition of any excavation or compaction works near trees without the permission of the competent institutions;
- temporary fencing of work sites and warehouses around green areas with fences (made of wood or other light material);
- the contractor will be responsible for the deforestation of trees and accidental, direct or indirect, unplanned destruction due to the activities carried out;
- for any planned deforestation, the contractor will obtain the deforestation authorization from the territorial Environmental Agency;
- It is forbidden to place site organizations, production bases, loan pits and access roads in the protected area, in nesting zones.
- not allowing temporary storage of construction materials, excavated soil, inert waste and other materials in the immediate vicinity of trees and shrubs (at least 1.5 metres);
- prohibition of any excavation or compaction works near trees without the permission of the competent institutions;
- temporary fencing of work sites and warehouses around green areas with fences (made of wood or other light material);
- the contractor will be responsible for the deforestation of trees and accidental, direct or indirect, unplanned destruction due to the activities carried out;
- for any planned deforestation, the contractor will obtain the deforestation permit from the territorial environmental institutions;
- It is forbidden to place site organizations, production bases, loan pits and access roads in the protected area, in nesting areas.
- To minimize damage to the nesting of birds during the breeding period, their pruning will be restricted until the end of the breeding period (i.e. the limited period will be from September to mid-March).

The planting of trees and shrubs along the roads of the Project is usually carried out upon completion of these works. But if the section is cleared for planting before the end of the work, it is recommended to plant the trees in advance. Planting details, such as compensating species, exact planting locations, interval between newly planted trees, etc., will be established in a joint consultation between the Contractor, Engineer, AND and “Moldsilva” Agency representatives. Preferably, according to the Draft, only native species adapted to the environmental conditions of the area should be used for planting. The presence of invasive species on the perimeter of the road must be monitored. In case of their presence, to inform the specialized authorities (ANSA, Environment Agency alt.)

In order to minimise and reduce the impact on habitats in forest ecosystem areas, particularly the areas of the Emerald Sites, it is compensated by the potential positive effects of the construction of the M3 road sector, but also requires the following mitigation measures:

- Establishing the need for deforestation of trees/shrubs in the work corridor, only for strict necessity;
- For the loss of trees in the work corridor, adequate compensation shall be established, through support in planting trees of species in accordance with the forest station, for the ecological reconstruction of the forest body, in locations agreed with the forestry entities;
- Some trees will be outside the breeding and nesting period. Monitoring will include trees with hollows with swarms of bees and/or bird nests, other places of shelter for animals, including reptiles, amphibians and bats.
- It is forbidden to collect fruits, flowers from other parts of plants, mushrooms from adjacent forests and cutting branches or other damage to the forest;
- It is forbidden to light a fire or burn dry vegetation and plant debris;
- The entrepreneur removed the tree stumps after the process of deforestation of the forest vegetation.

To minimize damage to the nesting of birds during the breeding period, their pruning will be restricted until the end of the breeding period (i.e. the limited period will be from September to mid-March).

Operational phase

After the completion of the reconstruction works, the M3 Road will have a long-term positive impact on road safety and better conditions by reducing the number of accidents; reduced emissions from vehicles due to smoother traffic, no bumps on the road surface after the improvement, and will also reduce dust pollution, which will have a positive impact on biodiversity.

Road access in sensitive areas (Emerald Sites, NPAs) will be improved, in large part, because the road will bypass (especially Lot 4) than those existing in the south of the country and will be at a greater distance from some sensitive areas such as the wetlands in the Prut River area with reductions in pollution of ecosystems and aquatic biodiversity, thanks to the improved, safe and clean road drainage systems, the removal of dust due to the asphalt surface. A reduced risk of landslides, stable slopes through new plantings in sensitive sections will add to the overall improvements.

The general conditions that are required to avoid the risk to biodiversity during the operation period are as follows:

- Maintenance actions of the road sector during the period of operation, in particular the cleaning of petroleum products and the collection of improperly stored household waste, especially in the area of Emerald Sites, NPAs, forest ecosystems;
- Establishing of waste management, without the use of intermediate landfills, in biodiversity-sensitive areas;
- Creation of vegetation alliances, which will serve as sound-absorbing devices at the edge of the road to reduce noise pollution generated by road traffic
- Installation of indicators (especially Lot 1 - forest areas), indicating dangerous areas for animals to cross the Road
- Permanent monitoring of flora and fauna habitats in sensitive areas (Emerald Sites, NPAs, forest ecosystems) according to national and international legal requirements (EU Directives, International Conventions)

The requirements for how to mitigate the impact for species and habitats in the Emerald Sites, ANPS and forestry are included in the following table:

| Notable habitats/ sensible zones | Requirements | Mitigate of impact | Phase | Responsible |
|---|---|----------------------------|----------------------|--|
| Birds Nests of raptors species of birds | If there are habitats with birds of prey species (eagles and falcons), old trees with hollows will be monitored, in which bird nests can be found felling will be avoided | Avoid | Pre- Construction | ***Contractor + persons responsible for monitoring environmental/biodiversity aspects*** |
| Emerald Sites Area/ ecosysteme forestiere/ Bird nests | Works in forest ecosystem areas (forest fund) will be avoided as much as possible, especially around the Emerald Sites and ANPS - forestry during the animal breeding season (spring and early summer). | Avoid | Construction | |
| Emerald Sites/NPAs Habitats of rare species with national and international protection status | For rare species with special national and international protection status (Birds Directive and Habitats Directive, Bonn, Berne and CITES Conventions, Red Book of the Republic of Moldova, ed. A III-a): i) the works will not be carried out around the Emerald Sites during the breeding season of the animals (spring and early summer); ii) The works in the vicinity of the ANPS can be carried out avoiding noise, vibrations, night lighting, in order to avoid disturbances of wildlife. | Avoid Risk reduction | Construction | |
| Habitat of wildlife species | Construction waste (including accidental spills of oils and other chemicals) and household waste will be collected and disposed of from the site immediately so as not to attract birds and other wildlife, especially in the ANPS area of the Emerald Sites. | Avoid Risk reduction | Construction | |
| Areas with flora, forest and steppe ecosystems | The work area will be moistened with water to prevent excess dust, which can affect the vegetation of the forests and ANPS in the adjacent land near the work area. | Avoid Risk reduction | Construction | |

| Notable habitats/ sensible zones | Requirements | Mitigate of impact | Phase | Responsible |
|---|---|----------------------------------|-----------|---|
| Sensible areas of Emerald Sites/NPAs /Forest ecosystems | Monitoring the habitats of flora species in forest ecosystem areas (forest fund), especially around the Emerald Sites and ANPS – important during the migration period and the breeding season of animals and establishing the risk to them. | Avoid | Operation | Environment Agency Forestry enterprises of the “Moldsilva” Agency, NPAs administrations Scientific institutions |
| Habitats of species with national and international protection status | Monitoring of vulnerable and endangered species, with special national and international protection status and establishing the risk on them at the operational stage, according to the national legal requirements, EU Directives and international treaties, to which the RM is a party | Prevent Risk reduction | Operation | Environment Agency NPAs administrations Scientific institutions |

Table9-1: Requirements for how to mitigate the impact for species and habitats in the Emerald Sites, ANPS and forest ecosystems

9.7. Socio-economic

This section presents a structured assessment of socio-economic risks and impacts for Lots 1–4, organised into clearly defined sub-themes. For each risk/impact, a corresponding mitigation measure and reference to the appropriate management plan is provided. Significance ratings represent pre-mitigation conditions; residual impacts will be reassessed following application of mitigation measures.

Land Acquisition and Economic Displacement

| Impact | Mitigation Measure | Relevant Plan / Tool |
|--|--|---|
| Permanent Land Acquisition | Implement Resettlement Action Plan (RAP); full replacement cost compensation; completion of cadastral works; | RAP; LARP; Cadastral Works Program |
| Temporary Land Acquisition | Negotiated temporary land use agreements with compensation; reinstatement to pre-project condition | LARP; Construction Management Plan (CMP) |
| Temporary Economic Displacement | Advance communication; temporary access routes; signage; timely reinstatement | Access Management Plan (AMP); Traffic Management Plan (TMP) |
| Permanent Economic Displacement | Parcel-level consultation; redesign access routes where possible; livelihood restoration | RAP; Livelihood Restoration Plan (LRP) |

Table 9-2: Impact/mitigation measures land acquisition and economic displacement

Residual Impact: Expected Low, provided that RAP/LARF measures are implemented.

Access and Traffic Restrictions

| Impact | Mitigation Measure | Relevant Plan / Tool |
|-----------------------------------|---|--|
| Community Severance | Maintain at least one access route; provide detours; temporary access ramps | Access Management Plan; Traffic Management Plan (TMP) |
| Business Access | Visibility signage; directional boards; phased works to avoid full closures | Access Management Plan; Stakeholder Engagement Plan (SEP) |
| Road Safety (Construction) | Speed limits; flaggers; barriers; lighting; secure pedestrian routes | Traffic Management Plan; Community Health and Safety Plan (CHSP) |
| Road Safety (Operation) | Consolidation of access points; deceleration lanes; grade-separated crossings | Road Safety Audit (RSA) Implementation Plan |

Table 9-3: Impact/mitigation measures access and traffic restrictions

Residual Impact: Expected reduced to Low–Moderate with Traffic Management Plan and Road Safety Audit compliance.

Community Health, Safety and Welfare

| Impact | Mitigation Measure | Relevant Plan / Tool |
|---------------------------------------|---|---|
| Dust/Noise/Vibration | Watering, covering trucks, day-only works, noise barriers, monitoring | Community Health and Safety Plan (CHSP); Construction Management Plan (CMP) |
| Worker–Community Interaction | Code of Conduct; GBVH training; worker screening; no camps in settlement | Gender Based Violence and Harassment (GBVH) Action Plan; Community Health and Safety Plan (CHSP), Code of Conduct, Grievance Redress Mechanism (GRM). |
| Pedestrian Safety | Safe crossing points; fencing; temporary footpaths; school route coordination | Traffic Management Plan; Community Health and Safety Plan (CHSP) |
| Vulnerable Groups | Communication campaigns; targeted safety measures for schools/elderly | Stakeholder Engagement Plan (SEP), Community Health and Safety Plan (CHSP) |
| Health Infrastructure Pressure | Emergency coordination; on-site first aid; hygiene protocols | Community Health and Safety (CHSP); Emergency Response Plan (ERP) |

Table 9-4: Impact/mitigation measures community health, safety and welfare

Residual Impact: Expected Low–Moderate; Welfare impact remains High Positive

Occupational Health and Safety (PR4), Labour and Working Conditions (PR2)

| Impact | Mitigation Measure | Relevant Plan / Tool |
|--|--|--|
| OHS legal/tender gaps (PR2/PR4) | Update FIDIC clauses to reference PR2/PR4; explicit labour and OHS rights clauses; requirement for contractors to comply with Project LMP and OHSP; alignment with ILO and ISO 45001. | Labour Management Procedure (LMP); Contractual Addenda to FIDIC; Occupational Health and Safety Management Plan (OHSP) |
| Contractor OHS Performance | Prequalification, audits, KPIs, Job Hazard Analysis (JHAs), toolbox talks | Occupational Health and Safety Management Plan (OHSP) |
| Supply Chain Risks | Supplier screening; audits; child/forced labour prohibition | Supply Chain Management Plan (SCMP) |
| OHS During Construction | Safe work-zones; PPE provision and enforcement; Noise-absorbing panels at sensitive receptors, task-specific JHAs and method statements; heat/cold stress protocols; noise/vibration control; near-miss reporting; behaviour-based safety. | Occupational Health and Safety Management Plan (OHSP); Traffic Management Plan (TMP); Emergency Responsive Plan (ERP) |
| OHS During Operation (maintenance crew) | Maintenance-specific risk assessments; Maintenance TMP; reflective PPE; shadow vehicles and signage for mobile works; training for night work and winter conditions. | Maintenance Traffic Management Plan; OHSP (Operations); Emergency Response Plan (ERP) |
| Gaps in HR policies & Code of Conduct | Develop PR2-compliant HR Policy and Code of Conduct; include provisions on child/forced labour, GBV/SEA, non-discrimination, working time, freedom of association, worker GM, supply chain obligations. | HR Policy & HR Management System (HRMS); Code of Conduct (CoC) |
| Unclear working relationships / contracts | Require written employment contracts or written terms for all workers (including non-standard contracts); ensure contracts are in a language understood by workers; induction on rights and obligations | LMP; Standard Contract Templates; Induction & Training Plan |
| Child labour / young workers in hazardous work | Age verification procedure (ID checks, records); explicit prohibition of <18 in construction and hazardous work; monitoring of contractors and recruitment agencies. | LMP; Contractor Labour Management Plan (CLMP); Contractual Child Labour Clause |
| Forced labour / modern slavery (esp. migrant workers) | Zero-tolerance policy; prohibition of passport retention and recruitment fees; due diligence on recruitment agencies; confidential GM for migrant workers; regular audits. | Modern Slavery / Forced Labour Procedure; LMP; Contractor Management Plan (CMP) |
| Non-discrimination & unequal opportunities | Non-discrimination clauses in HR Policy and contracts; transparent recruitment and promotion criteria; monitoring of gender and vulnerable groups in workforce; corrective actions where inequities identified. | HR Policy; LMP; Equal Opportunity & Diversity Procedure |
| Restriction of freedom of association & collective bargaining | Explicit commitment to respect workers' rights to organise; non-interference clauses in contracts; engagement with worker representatives/unions; access to GM for union issues. | HR Policy; CoC; LMP |
| Excessive working hours / unpaid overtime | Working Time Procedure consistent with Labour Code and PR2; timekeeping system; premium rates for overtime; regular monitoring and reporting; toolbox talks on fatigue. | Working Time & Overtime Procedure; LMP; OHSP |
| Inadequate wages & benefits | Contractual requirement to meet at least national minimum wage and industry standards; periodic | LMP; Payroll Procedures; Contractual Wage Clauses |
| Weak protection of personal data & privacy | Data Protection Protocol for HR; limited access to personnel files; clear rules for handling data in GM and investigations; staff training on data protection. | Data Protection Protocol; HRMS; Worker GM Procedure |
| Inadequate Worker Grievance Mechanism (GM) | Establish confidential, accessible Worker GM; multiple channels (boxes, hotline, email, worker reps); guaranteed non-retaliation; | Worker Grievance Mechanism Procedure; GM Register; HRMS |

| Impact | Mitigation Measure | Relevant Plan / Tool |
|---|--|---|
| | defined timelines; GM extended to contractor workers. | |
| Contractor labour management gaps | Require Contractor Labour Management Plans; include PR2 clauses in contracts; pre-qualification based on labour performance; regular labour audits and reporting; corrective action plans. | Contractor Management Plan (CMP); CLMP; Owner's Engineer ToR |
| Supply chain labour risks (child/forced labour, poor conditions) | Supplier screening and pre-qualification; inclusion of PR2 clauses in purchase contracts; audits of high-risk suppliers (quarries, asphalt plants, etc.); termination clauses for non-compliance. | Supply Chain Management Plan (SCMP); Procurement Procedures; Supplier Code of Conduct |
| Non-employee workers (subcontractors, agency workers) | Extend PR2 requirements to all non-employee workers via contracts; ensure access to Worker GM; monitoring of recruitment practices and working conditions; regular inspections. | CMP; CLMP; LMP; Worker GM Procedure |
| Worker accommodation – substandard camps | Develop Worker Accommodation Plan aligned with IFC/EBRD 2009; minimum standards for space, WASH, fire/electrical safety; gender-sensitive facilities; regular inspections and corrective actions. | Worker Accommodation Plan (WAP); CoC; OHSP |
| GBV/SEA, harassment and bullying | GBV/SEA Action Plan; CoC with explicit GBV/SEA prohibitions; mandatory induction and refresher training; confidential reporting channels; survivor-centred response protocols; contractual zero-tolerance clauses. | GBV/SEA Action Plan; CoC; Worker GM; LMP |
| Security personnel abuses affecting workers (if required) | Security Management Procedure aligned with Good International Practice; vetting of security providers; training on human rights and GBV/SEA; clear rules on use of force; GM to receive complaints about security staff. | Security Management Plan (SMP); Security Provider Contracts; Worker & Community GM |
| Ineffective communication of worker rights (language barriers) | Provide contracts, policies and key procedures in languages understood by workers (Romanian/Russian/English/other as needed); use visual aids; toolbox talks; worker representatives to support communication. | LMP; Induction & Training Plan; Site Noticeboards |
| Weak monitoring and enforcement of PR2 requirements | Integrate PR2 monitoring into ESMP and Owner's Engineer ToR; regular site audits; KPIs for labour and OHS; reporting to Client and EBRD; corrective action tracking. | ESMP; CMP; Monitoring & Reporting Framework |
| Retrenchment / collective dismissals (if applicable for O&M) | Develop Retrenchment Plan aligned with ESR2; analyse alternatives; consult workers and unions; define compensation and support measures; integrate GM; clear communication plan. | Retrenchment Plan; HRMS; Worker GM Procedure |

Table 9-5: Impact/mitigation measures occupational health and safety, labour and working conditions

Residual Impact: Expected Moderate (PR4/PR2 is inherently high-risk but manageable).

Economic and Local Development

| Impact | Mitigation Measure | Relevant Plan / Tool |
|---|---|---|
| Increased regional & national economic activity due to improved road performance | Optimise design for improved traffic flow and safety (intersections, bypass, signage). Temporary traffic management to minimise congestion. Maintain access to businesses, farms, logistics areas during construction. Advance communication regarding diversions or closures. | Traffic Management Plan (TMP) ESMP – Business Access Procedures Stakeholder Engagement Plan (SEP) |

| Impact | Mitigation Measure | Relevant Plan / Tool |
|---|---|--|
| Economic stimulation from capital expenditure on materials, construction services, logistics | Prioritise local/regional suppliers where feasible. Transparent and competitive procurement. Supplier outreach and capacity-building workshops. Include ESG requirements (labour standards, OHS, ethical sourcing). | Supply Chain Management Plan (SCMP) Contractor Procurement Procedures SEP – Supplier Engagement Mechanisms |
| Direct, indirect & induced employment creation during construction | Local hiring prioritised: AoI → district → national labour market. Encourage 30–40% unskilled workforce from AoI communities. Coordination with LPAs and Employment Agencies to identify workers. Provide induction training, skills development, and on-site mentoring. | Labour Management Procedure (LMP) Contractor Labour Management Plan OHS Management Plan (OHSP) Worker GRM |
| Unequal access to information on job opportunities | Job postings at mayor's offices, cultural centres, libraries, bus stops. Use local social media (Facebook, WhatsApp, Viber) & local radio. Advertise via ANOFM, national job platforms. Contractor website + CLO announcements. Job fairs in district centres; bilingual materials. | SEP – Information Disclosure Plan LMP – Recruitment Procedures Communications Plan |
| Temporary economic disruption to roadside businesses during construction | Maintain continuous access to businesses where possible. Provide alternative pedestrian/vehicle routes. Advance notices (min. 7–14 days) for closures. Temporary signage to ensure visibility of shops. Engagement with business owners; rapid handling of grievances. | TMP, ESMP – Business Access Management Plan, RAP Framework (if economic displacement occurs) SEP |
| Risk of exclusion of vulnerable groups (women, youth, low-income households) from employment | Simplified application processes; targeted outreach via LPAs/social workers. Promote gender-sensitive hiring and equal opportunities. Encourage youth participation and upskilling. Dedicated CLO contact for vulnerable groups. Ensure non-discriminatory HR procedures. | LMP – Equal Opportunity Policy SEP – Inclusive Engagement Strategy Worker GRM |
| Need for monitoring of local hiring, labour practices, and economic benefits | Monthly reporting by Contractors: workforce composition, gender/age breakdown, % local hires. Regular labour audits & OHS compliance checks. Training records maintained and reported. Community feedback loops maintained via CLO. Annual performance review of local employment outcomes. | LMP Monitoring Requirements ESMP Monitoring Framework SEP Monitoring Table |
| Potential strain on local services (accommodation, water, waste) due to workforce influx | Contractor to provide adequate worker facilities (sanitation, accommodation, waste management). Minimise pressure on community infrastructure. Regular inspections of worker camps (if any). | Worker Accommodation Plan (aligned with IFC/EBRD standards) OHSP ESMP |

Table 9-6: Impact/mitigation measures economic development

Residual Impact: All positive impacts remain positive after mitigation and in most cases are enhanced

(employment, economic development, supplier benefits). All adverse social/economic risks are reduced, with most falling to Low significance

Historical and Cultural Heritage

| Impact | Mitigation Measure | Relevant Plan / Tool |
|--------------------------------|---|--|
| Direct/Indirect Impacts | Avoidance of protection zones; dust/noise control | CHMP (Cultural Heritage Management Plan) |
| Chance Finds | Formal Chance Finds Procedure; stop-work authority | Chance Finds Procedure (CFP); Cultural Heritage Management Plan CHMP |
| Supply Chain Risks | Supplier screening; audits; child/forced labour prohibition | Supply Chain Management Plan (SCMP) |
| Worker Awareness | Training on artefact identification; monthly refreshers | Cultural Heritage Management Plan CHMP; Contractor Training Plan (CTP) |

Table 9-7: Impact/mitigation measures historical and cultural heritage

Residual Impact: Is expected Negligible.

The Environmental and Social Management Mechanism establishes the institutional framework, systems, procedures and tools that ensure systematic, consistent and auditable implementation of environmental and social good practice throughout the M3 Road Corridor Tranche 2 Rehabilitation Project.

The Contractor shall implement a functional ESMS aligned with EBRD PR1 requirements, including: Clear organizational structure and assigned roles (Environmental Manager, OHS Officer, Biodiversity Specialist, Community Liaison Officer). Document control and record-keeping procedures. Internal audit and review mechanisms. Non-conformance reporting, corrective/preventive action tracking. The PIU and SE shall verify ESMS implementation through regular audits

The following management plans must be designed and implemented to manage impacts prior to the start of construction, which collectively will comprise the PIU's Construction Environmental and Social Management System (ESMS): note that the majority of the measures shall be implemented through legally-binding agreements with the Executive Contractor who shall have their own ESMS (CESMP) that reflects the requirements of the PIU's ESMS.

- Policies including an Environmental and Social Policy, Human Resources, Security Management Policy, and an Anti-Harassment Policy.
- Permit and Consents Register which reflects the need to obtain (or renew as required) permits for the execution of the project by comply with all legal requirements and relevant authorizations.
- Stakeholder Engagement Plan and Community Grievance Mechanism (referring also to other plans listed below)
- Resettlement Plan using Resettlement Action Framework as a basis
- Utilities Management Plan
- Worker Code of Conduct and Security Personnel Code of Conduct (if apply security personnel)
- Security Management Plan (if required)
- Worker Grievance Mechanism
- Human Resources Management Plan and Human Resources policies
- Worker Accommodation Plan (if required)
- Emergency Response Plan
- Occupational Health and Safety Management Plan
- Community Health and Safety Management Plan
- Gender Based Violence and Harassment (GBVH) Action Plan
- Traffic and Transport Management Plan
- Pollution Prevention Management Plan
- Waste Management Plan
- Chance Find Procedure
- Training Plan
- Supply Chain Management Plan
- Change Management Procedure

- Environmental and Social Management Plan that can be inserted into the Construction Contractor's tender documentation which reflects legally binding commitments to achieve sound E&S performance during the construction stage, in accordance with national legislation and EBRD's Environmental and Social Policy. Description of the objectives, key content and management measures of each listed plan are described in ESMP.

10. Monitoring and Supervision

The objective of environmental and social monitoring during the construction and operation phases is to compare the monitored data with the baseline conditions established during the ESIA study period, in order to evaluate the effectiveness of mitigation measures and to ensure compliance with national environmental and social standards.

Environmental and social monitoring will be carried out throughout the **construction** and **operation** phases of the Project.

- During construction, monitoring will be primarily the responsibility of the Contractor, under the supervision of the Environmental and Social Engineers of the Supervision Company;
- The NRA and the Environmental Authorities will oversee compliance with national regulations and lender requirements;
- During operation, the monitoring responsibility will be transferred to the relevant road maintenance authority, which will continue environmental performance checks as required by the Environmental and Social Action Plan (ESAP).

Environmental monitoring during construction will focus primarily on ensuring the Contractor's compliance with environmental, health, and safety (EHS) requirements rather than on quantitative parameters alone.

Key monitoring activities will include:

- Regular inspections of work sites, work camps, storage facilities, and installations;
- Interviews and consultations with Contractor's staff, especially the environmental and social specialists;
- Engagement with local communities near work sites to gather feedback on environmental and social issues;
- Review of environmental documentation such as waste records, spill logs, and material delivery reports;
- Visual observations to identify non-compliance or potential environmental risks (e.g. dust, leaks, waste mismanagement).

Where required, quantitative monitoring (such as air, noise, vibration, or water quality sampling) will be carried out by accredited laboratories, as per national standards and regulatory obligations. Sampling will be designed to be representative of the areas affected by the works, ensuring that data accurately reflect the environmental conditions in impacted zones. Specific quantitative and qualitative monitoring indicators will be defined by the Environmental Engineer during the construction stage, as deemed necessary and in accordance with applicable national legislation.

Supervision of environmental and social compliance will be carried out jointly by:

- Lenders' representatives, through periodic audits and reporting requirements;

- National environmental and construction authorities, which will conduct inspections and verify compliance with permit conditions;
- The Supervision Company, which will submit regular environmental and social performance reports to the NRA and lenders.

| Environmental indicator / parameter | Location | Frequency | Type of monitoring | Responsibility | Cost |
|--|---|--|---|--|------------------|
| LAB ANALYSES / SITE MONITORING | | | | | |
| Soil contamination Hydrocarbons contaminations | Areas most vulnerable to the discharge of hydrocarbons | 1 x prior to start of works; 1 x upon completion of construction – same sites | Accredited lab (sampling, lab analysis and data interpretation) | Contractor; SE to approve sampling points and reports | Contractor costs |
| Ambient air emissions Ambient air quality during peak construction activities (CO, SO ₂ , NO _x , particulates PM10 and PM2.5, hydrocarbons, and benz(a)pyrene) | Potentially most affected residential areas, houses on roadside; pedestrian areas | 1 x prior to start of works 1 x at the peak of construction inside each village affected by construction | Accredited lab (sampling, lab analysis and data interpretation) | Contractor; SE to approve sampling points and reports | Contractor costs |
| Ambient noise pollution Ambient noise levels during peak construction activities – compliance with maximum exposure limit of 70 dBA | Most affected residential areas along the Project route | Maximum noise impact period during construction in settlements; in case of complaint. If the results are unsatisfactory undertake weekly measurements | Handheld equipment (analyser) with application software | Contractor; SE to approve sampling points and reports | Contractor costs |
| Vibration | Infrastructure (e.g. houses, walls, wells, etc.) in the immediate vicinity of construction sites or transport routes – especially where heavy equipment will be used. Properties as indicated by owners | Once prior to start of works and again upon completion of construction works in respective settlement | Inspection/documentation on the condition of relevant infrastructure (e.g. existing cracks on buildings or other physical damage) | Contractor with supervision engineer visual monitoring; photographic documentation | - |
| Drinking water quality: Permanent risk of impact on local water resources due to the proximity of wells to the road edge The following physical-chemical parameters are to be monitored: pH, electroconductivity; suspended matter, BOD5, COD. The following specific pollutants are to be monitored: heavy metals, oil products; formaldehyde, E. coli, and total coliform. | Wells close to the road edge along M3. | 1 x prior to start of works upon completion of construction (only at those wells where water was initially found to be suitable for drinking purposes) | Accredited lab (sampling, lab analysis and data interpretation) | Contractor SE to approve sampling points and reports | Contractor costs |
| Air emissions during operation phase | Potentially most affected residential areas, houses on roadside; pedestrian areas | According to the monitoring plan developed by the NRA and approved by the Environmental Agency | Accredited lab (sampling, lab analysis and data interpretation) | NRA/SE | Operational cost |
| Noise pollution during operation phase | Most affected residential areas along the Project route | According to the monitoring plan developed by the NRA and approved by the Environmental Agency | Handheld equipment (analyser) with application software | NRA/SE | Operational cost |

| Environmental indicator / parameter | Location | Frequency | Type of monitoring | Responsibility | Cost |
|---|---|--|--|---------------------------------------|------|
| MONITORING PLAN | | | | | |
| Material supply | | | | | |
| Asphalt plant Possession of official permit / valid license | Asphalt plant/Contractor documentation | Prior to start of construction works (and renewal checked annually) | Presence of valid environmental permit, operational license and conformity certificates (e.g., air emissions permit, waste management authorization, water use permit if applicable) | SE | NA |
| Stone quarry Possession of official permit / valid license | Quarry/Contractor's documentation | Prior to start of works / during construction (quarterly or at each major supply delivery stage) | Verification of valid extraction permit / quarry operating license; confirmation of compliance with environmental and land-use requirements (environmental permit, water use permit if applicable, waste management compliance) | SE | NA |
| Sand and gravel pit Possession of official permit / valid license | Sand and gravel borrow pit / separation | Prior to start of works / during construction (quarterly or at each major supply delivery stage) | Confirmation of valid extraction license, environmental permit, land-use authorization, and proof of legal operation; verification of compliance with environmental and OHS obligations. Document review, cross-checking extraction permits, site inspection, verification of supplier compliance records. | Borrow pit or separation operator/ SE | NA |
| Soil for embankment construction Compliance with provision of license | Construction site/ Contractor's borrow area documentation | Prior to start of works / during construction (e.g., per delivery batch or monthly) | Verification that soil is sourced from legally permitted/licensed borrow areas; confirmation of authorization for excavation, transport, and placement. Document review, verification of borrow pit license, site inspection, checking transport documentation and conformity certificates | Borrow pit or separation operator/ SE | NA |
| Material Transport | | | | | |
| Asphalt, Stone, Sand & gravel, Soil. Truck load covered | Construction site and access roads | Unannounced inspections at least once weekly (more frequently during high-traffic periods) | All trucks transporting materials must have loads fully covered with tarpaulins/nets to prevent spillage, dust generation, and traffic safety hazards. Visual inspection, spot checks at site entrances/exits, photographic evidence | Contractor/SE | NA |
| Transport routes Compliance with approved transport routes as per Contractor's Method Statement | Construction site surrounding local roads; haul route checkpoints | Unannounced inspections at least once weekly (and additional checks during peak material delivery periods) | Verification that all construction vehicles use only the approved transport routes as defined in the Contractor's Method Statement / Traffic Management Plan. Field inspection, GPS/route spot checks, visual monitoring at key junctions, photographic documentation | Contractor/SE | NA |
| Monitoring of the compliance with the agreed construction transport and traffic safety measures and procedures. | At and near the construction site, haul road entrances/exits, detours | Permanently (daily monitoring; continuous during active construction hours) | Continuous verification that all construction traffic follows the approved safety procedures: signage, flagging, speed limits, barriers, designated access points, pedestrian protection, detours, lighting and work-zone layout. Visual monitoring, routine safety walkthroughs, inspection checklists, photo documentation | NRA/SE | NA |

| Environmental indicator / parameter | Location | Frequency | Type of monitoring | Responsibility | Cost |
|---|--|--|--|----------------|------|
| Construction Site – Construction Phase | | | | | |
| Noise level (neighbouring population; workers) | Most affected residential areas near construction; workplace / machinery zones | During maximum noise-impact periods in settlements and periodically during construction (e.g., weekly or during high-noise activities) | Measurement of environmental noise levels at most affected residential areas and worker locations to confirm compliance with national limits and EBRD PR4 requirements. Instrumental noise measurements using calibrated noise meter; supervision checks; visual observation of high-noise activities | Contractor/SE | NA |
| Vibration Effects of vibration on properties | Properties indicated by owners or identified as sensitive structures | Upon complaint (and immediately during high-vibration works near settlements) | Assessment of potential vibration-related damage to nearby properties following community complaints or reports from owners. Visual inspection, photographic documentation, crack mapping; instrumental vibration measurement if needed | Contractor/SE | NA |
| Dust impact (suspended particles) | Construction site; haul roads; residential areas adjacent to works | Unannounced inspections during delivery of materials and during construction; upon complaint | Verification of dust levels and dust-generating activities; confirmation that dust suppression measures (water spraying, covered loads, speed control) are effectively applied. Inspection / visual observation. Inspection / visual observation, photographic records; spot checks of water-spraying frequency, covered loads, and site cleanliness | Contractor/SE | NA |
| Traffic disruptions; problems | At and near the construction site; detours; temporary traffic diversions | Once per week during peak and non-peak hours (and more frequently during critical works) | Verification of traffic flow conditions near construction areas; identification of delays, congestion, unsafe manoeuvres, or blocked access points during peak and non-peak hours. Visual inspections, traffic observation, informal checks with road users; photographic evidence | Contractor/SE | NA |
| Access to private property / land / public facilities | Construction site; adjacent properties; local access roads | Random checks at least weekly during construction activities | Verification that construction activities do not block or restrict access to homes, agricultural land, businesses, schools, health centres, or other public facilities. Visual inspection, interviews with affected landowners/residents, photo documentation. | Contractor/SE | NA |
| Vehicle and pedestrian safety when there is no construction activity (Visibility; safety) | At and near construction site; temporary detours; pedestrian routes | Random checks at least once weekly in the evening / at night | Verification that construction zones remain safe for road users and pedestrians after working hours: adequate lighting, reflective signs, barriers, warning tape, unobstructed paths. Observation, visual inspection, photo documentation | Contractor/SE | NA |
| Water and soil pollution from inappropriate material storage, management and use (Problems; compliance with approved site management plan) | Construction site; contractor's camp/yard; storage areas; workshops | Unannounced inspections | Verification that materials (fuel, oil, bitumen, chemicals, aggregates, waste) are stored, handled, and used in compliance with the approved Site Management Plan; confirmation that no spills, leakages, contaminated runoff, or improper disposal | Contractor/SE | NA |

| Environmental indicator / parameter | Location | Frequency | Type of monitoring | Responsibility | Cost |
|---|--|--|--|---|----------------------|
| | | | occur. Inspection / visual observation, spill logs review, photographic documentation | | |
| Monitoring the actions of cutting trees in the forest, so as not to affect the nests of birds, bats and bees | At and near the construction site; forested patches; roadside trees | Prior to start of works and throughout the deforestation period | Verification that tree-cutting activities avoid active nests, bat roosts, and bee colonies; ecological checks performed before removal; compliance with seasonal restrictions. Visual evaluation, ecological pre-clearance survey, inspection of cavities/crevices, photographic documentation | Contractor (Environmental/Biodiversity Expert)/ SE-Environmental Inspectorate, "Moldsilva" Agency | BOQ |
| Tree plantations Successful tree plantations / the use of species adaptable to stationary and pollution conditions. Caring for planted vegetation and replacing any failed trees | Along the project road | Towards the end of construction (and periodically during the first growing season) | Verification that planted trees are healthy, survive the establishment period, and that species used are suitable for local soil, climate, and pollution conditions; confirmation of maintenance activities and replacement of failed trees. Visual inspection, survival rate assessment, photographic documentation | Contractor (E/B expert)/SE-NRA, Environmental Inspectorate | BOQ |
| Monitoring forest ecosystems to prevent soil pollution and contamination in forests and vegetated lands with waste, solid and liquid chemicals, which can affect them | Along the project road; adjacent forest and vegetated lands | Permanently (continuous during construction) | Verification that no waste, hazardous substances, construction materials, fuel, chemicals, or contaminated runoff enter forested or vegetated areas; confirmation that forest soil integrity and vegetation remain unaffected. Visual inspection, photographic documentation, waste storage/handling checks. | Contractor (Environmental/Biodiversity Expert)/ Environmental Inspectorate, "Moldsilva" Agency | NA |
| Monitoring of implementation measures to cover temporary warehouses with construction materials, to avoid the risk to animals. | Along the project road; temporary material storage areas; contractor's warehouse zones | Permanently (continuous during construction) | Verification that temporary warehouses and material storage areas are properly covered, fenced or enclosed to prevent wildlife, domestic animals, and birds from entering and being exposed to hazards. Visual inspection, photo documentation, daily site checks. | Contractor (Environmental/Biodiversity Expert)/ | NA |
| Installation of warning signs regarding the risk of animals appearing on the roadway | Along the project road in sections bordering forests or wildlife habitats | Towards the end of construction/ Operational phase | Verification that wildlife warning signs are installed at locations identified as high-risk for animal crossings, in accordance with design and in consultation with forestry authorities; confirmation of appropriate placement, visibility, and durability. Visual inspection, verification of sign placement, reflectivity, and stability | Contractor/ SE-NRA in consultation with "Moldsilva" Agency | Implementation costs |
| Monitoring of flora and fauna habitats in sensitive areas (Emerald Sites, NPAs, forest ecosystems) | Along the project road | Construction/ Operational phase | Biodiversity Impact Monitoring | Contractor/ SE-NRA in consultation with "Moldsilva" Agency | NA |
| Monitoring the actions of cutting trees in the forest, so as not to affect the nests of birds, bats and bees | At and near construction site; forested areas along the alignment | Prior to start of works and throughout the deforestation period | Verification that tree removal avoids active bird nests, bat roosts and bee colonies; ecological pre-clearance required prior to works; compliance with seasonal restrictions. Visual evaluation by qualified ecologist; cavity inspection; photographic documentation. | Contractor (Environmental/Biodiversity Expert)/ SE-Environmental Inspectorate, "Moldsilva" Agency | BOQ |

| Environmental indicator / parameter | Location | Frequency | Type of monitoring | Responsibility | Cost |
|--|------------------------|------------------------------------|--|---|----------------------|
| Land acquisition and economic displacement | | | | | |
| Planning & Implementation of Permanent Land Acquisition – Lot 4 (Bypass + M3/M3.1) | Lot 4 | Continuously on a quarterly basis. | Completion of cadastral works (identification of private/public land, delimitation, correction of errors, updated geometric plans) - Number and type of affected land plots confirmed (private/public; agricultural, construction, gardens, forest, uncategorised) - Share of affected land plots for which agreements/expropriation decisions are finalized (%) Evidence that valuation of affected land is carried out by licensed independent valuers - Compensation rates documented and consistent with full replacement cost and PR5 (incl. transaction costs). Number and % of eligible landowners/land users who received compensation before land entry - Time between compensation agreement and taking possession of land | NRA/ Evaluation Company Review of NRA cadastral documentation and contracts – Minutes of coordination meetings with Cadastre Office and LPAs Review of valuation reports - Comparison of compensation rates vs. market values / land tax values Payment registers; bank transfer records - Random verification with beneficiaries (phone/FGDs) | NRA |
| Legacy Land Acquisition – Lot 2 Phase 1 (2019) and Associated Corrective Actions | Lot 2 | Audit period | Completion of independent audit of 2019 land acquisition and compensation for Lot 2 - Number and type of gaps identified (if any) vs. LARF/PR5 requirements Number of corrective actions identified and implemented (e.g. top-up payments, documentation updates) | Independent Auditor/ NRA Review of NRA historical files - Independent audit report Corrective Action Plan and completion evidence | NRA |
| Temporary Land Use – Construction Camps, Laydown Areas, Borrow Pits, Access Roads | All Lots | Construction preparation | Number and type of temporary land plots used (state vs private) - Share of temporary land plots with written agreements signed prior to use (%). Amount and duration of temporary land occupied per plot - Evidence of payment of rent/compensation for temporary use at agreed rates. Number and % of temporary land plots reinstated to pre-project condition and returned to owners within agreed timeframe. | NRA/Contractor/ SE Review of Contractor's Land Use Register - Land lease agreements Lease contracts; payment records, Interviews with landowners (sample) Site inspections - Completion documentation co-signed by landowners – Photographic evidence | Contractor Costs |
| Temporary Economic Displacement During Construction (Access to Businesses and Agricultural Land) | Along the Project Road | Continuous | Number and location of businesses and roadside vendors affected by temporary access restrictions (per Lot) – Duration of access disruption (days). Availability of alternative access routes during construction (yes/no; qualitative adequacy) – Number of locations where temporary access was created/maintained vs. planned. Number of complaints from businesses/farmers regarding access and income loss; time taken to resolve | NRA/Contractor/ SE Contractor traffic management records - Site inspections - Consultations with businesses and farmers (FGDs, interviews) Review of Traffic Management Plans and method statements – Site inspections GRM log - Follow-up calls with complainants | Contractor Costs |
| Permanent Economic Displacement – Changes in Long-Term Business Viability and Access | All lots | Construction | Number and type of businesses potentially affected by permanent access changes (fuel | NRA Review of final design (access | Implementation Costs |

| Environmental indicator / parameter | Location | Frequency | Type of monitoring | Responsibility | Cost |
|--|------------------------|------------------|--|--|------------------------------|
| | | | stations, depots, agro-tourism, storage facilities, roadside markets) Number of businesses with loss of direct access / conversion to controlled access - Average change in travel distance to nearest junction/access (km) Qualitative perception of impact on customer flow, logistics, and operational costs (business survey) Number of livelihood restoration measures implemented (e.g. signage, improved service roads, alternative access, support measures) | plans, junction layouts) - Stakeholder consultations with identified businesses Comparison of baseline and post-construction access maps - GPS/desk analysis Targeted business survey or FGDs within 6–12 months after opening RAP / Livelihood Restoration Plan monitoring - Site inspection | |
| Compliance with LARF / RPF / RAP and PR5 Requirements | All lots | Pre-construction | Existence and approval of LARF, RPF, and Lot-specific RAPs / Supplemental RAPs where needed Implementation status of RAP measures (% of actions completed vs. planned) | Document review (EBRD, NRA) RAP action-plan tracking tool | Implementation Costs |
| Grievance Redress Mechanism (Land Acquisition and Economic Displacement) | All lots | Continuous | Number of grievances related to land acquisition, compensation, temporary land use, and access/economic displacement - Type of issues raised Average time for grievance resolution (days) - % of grievances resolved within the time limit set in SEP/GRM procedure Level of satisfaction with grievance resolution (sample of complainants) | NRA GRM register analysis (categorisation by theme, location, Lot, gender of complainant where possible) GRM database Short telephone survey with closed grievances | Implementation costs |
| Information Disclosure and Community Engagement on Land Acquisition | All lots | Continuous | Number and location of public meetings and small group discussions held on land acquisition and access changes (per Lot) - Number of participants (incl. women, elderly, business owners, farmers) Evidence that affected landowners and businesses received early notice about design changes, timing of land entry, and access arrangements | NRA SEP/engagement log – Attendance lists Copies of notices, letters, private messages, online announcements - Feedback from consultations | NA |
| Design Changes and Additional Land Acquisition (All Lots) | All lots | Continuous | Number and location of design changes that require additional land acquisition or access reconfiguration compared to original design Time required to complete new land acquisition compared to baseline schedule - Associated delays to construction | NRA Design change register – Land acquisition screening for each change Programme tracking – land acquisition process tracking | Implementation costs |
| No Physical Displacement Confirmation | All lots | Continuous | Number of occupied residential structures affected (baseline vs. final design) – expected to remain zero | NRA/SE Design review - Field verification | Implementation costs |
| Stakeholder Engagement Monitoring | | | | | |
| Implementation of SEP Engagement Activities | Along the project road | Continuous | Number of engagement events conducted vs. planned in SEP (public consultations, FGDs, meetings with LPAs, business meetings) - Number of participants (sex/age) | NRA/ Contractor SEP engagement log - Attendance sheets - FGD/meeting minutes | NRA/Contractor E&S budget |

| Environmental indicator / parameter | Location | Frequency | Type of monitoring | Responsibility | Cost |
|--|------------------------|------------|---|--|------------------------------|
| | | | disaggregation), Inclusion of vulnerable groups Timeliness and adequacy of information disclosed (notice periods, languages, channels used) | Review of disclosure materials (webpages, leaflets, LPA notice boards) - Verification with communities | |
| Monitoring of Grievance Redress Mechanism (GRM) | Along the project road | Continuous | Total grievances received (categorised: land, access, construction, noise, dust, safety, employment, economic displacement, etc.) - Complaints resolved vs. outstanding (%) - Average response and resolution time (days) - % of cases resolved within SEP time limit - Satisfaction level of complainants (sample follow-up) | NRA/Contractor GRM database - Review of grievance forms - Site-level GRM registers GRM software/database statistics Phone interviews with closed-case complainants | NRA/Contractor E&S budget |
| Monitoring of Social and Environmental Issues Reported by Communities | Along the project road | Continuous | Number and type of issues reported (dust, noise, vibration, safety, access, traffic, waste, vegetation removal, cultural sites) Response and corrective actions implemented by Contractor (timeliness, adequacy, recurrence) | NRA/Contractor GRM and consultation minutes - Environmental & Social site inspection checklists Site observations - Contractor monthly reports | NRA/Contractor E&S budget |
| Monitoring of Compliance with SEP's Inclusion Measures | Along the project road | Continuous | Number of targeted engagements with vulnerable groups (elderly, women, persons with disabilities, minority groups, low-income households) Accessibility of engagement events (location, timing, language availability: Romanian/Russian) | NRA/Contractor SEP logbook - FGD attendance lists Field verification - Participant feedback | NRA/Contractor E&S budget |
| Monitoring of Contractor's Stakeholder Engagement Obligations | Along the project road | Continuous | Existence of Contractor's Community Liaison Officer (CLO) and site-level engagement mechanism Number of contractor-community interactions (site visits, safety briefings, advance notice of works) | NRA/Contractor/SE Contract review - Monthly contractor reports Contractor community register | NRA/Contractor E&S budget |
| Monitoring of Information on Construction Impacts (Access, Traffic, Safety) | Along the project road | Continuous | Number of information notices distributed about temporary access restrictions or traffic changes Number of complaints regarding poor communication or lack of advance notice | NRA/Contractor/SE Copies of notices - LPA/community feedback, GRM log | NRA/Contractor E&S budget |
| Monitoring of SEP Compliance Mechanism and Corrective Actions | Along the project road | Continuous | Number of SEP non-compliances recorded (e.g., missed meetings, poor disclosure, inadequate engagement) Corrective actions implemented and closed | NRA/Contractor/SE Internal audits - Supervision engineer verification Corrective Action Plans tracking | NRA/Contractor E&S budget |
| Monitoring of Stakeholder Feedback on Project Risks and Benefits | Along the project road | Continuous | Community perception of project impacts (traffic safety, access, business visibility, agriculture mobility) Business community perceptions (Horești-Țipala cluster, Săgaidacul Nou, Giurgulești business zone, agro-tourism on Lot 1) | NRA/Contractor/SE Surveys and FGDs during construction and early operation Business surveys - Interviews | NRA/Contractor E&S budget |
| Monitoring of Engagement on Design | Along the project road | Continuous | Number of consultations held on access | NRA/Contractor/SE | NRA/Contractor |

| Environmental indicator / parameter | Location | Frequency | Type of monitoring | Responsibility | Cost |
|---|------------------------|---|---|---|----------------------|
| Changes (Access, Junctions, Service Roads) | | | reconfiguration, closure of direct access, parallel routes Stakeholder agreement with proposed access solutions (qualitative feedback) | Meeting minutes - Consultation feedback forms | E&S budget |
| Access, Traffic, Agricultural Mobility & Road Safety | | | | | |
| Monitoring Access Restrictions During Construction (Communities & Businesses) | Along the project road | Construction (indicated per monitoring) | Number of side roads / accesses temporarily closed (planned vs. unplanned) - Duration of closures (hours/days) - Adequacy of temporary access arrangements Number of businesses experiencing access disruption (shops, fuel stations, agro-tourism, storage depots) - Number of complaints related to business access Public transport disruptions (bus stop relocation, closure, accessibility issues) | NRA/Contractor/ SE Contractor access logs - Site inspections - TMP checklists (weekly) GRM logs (monthly) - Business engagement records - Consultation minutes TMP records (monthly) - LPA confirmation - Bus operator feedback | Contractor costs |
| Monitoring Agricultural Land Access (Key Issue Across Lots 1–3) | Along the project road | Pre-construction/ Construction (indicated per monitoring) | Number of agricultural access points blocked/affected - Duration and season of impact (planting, irrigation, harvest) Functionality of temporary access tracks for tractors/machinery Number of detours required by farmers (km added; time) | NRA/Contractor/SE Site inspections – Contractor impact register – Farmer feedback (weekly in peak seasons) TMP monitoring - Field verification (weekly) GPS tracking; mapping analysis - Farmer surveys (quarterly) | Contractor costs |
| Monitoring Impacts from Closure of Informal / Direct at-Grade Accesses | Along the project road | Pre-construction/ Construction (indicated per monitoring) | Number of direct informal accesses closed (baseline vs. post-closure) % of affected households/businesses with functional alternative routes Number of grievances relating to loss of access | NRA/Contractor/SE Design vs. as-built comparison - Field inspections (monthly) Site verification - LPA confirmation - GRM follow-up (monthly) GRM log (monthly) | Contractor costs |
| Monitoring Traffic Safety Risks (Construction Phase) | Along the project road | Construction (indicated per monitoring) | Number of temporary diversions with proper signage and lighting - Compliance with TMP speed limits Accidents or near-misses involving construction vehicles Pedestrian safety near works areas (barriers, crossings, lighting) | NRA/Contractor/SE TMP audits - Joint inspections (NRA + Police) (weekly) Daily site walk-throughs (daily) Contractor incident logs - Police data (monthly) | Implementation costs |
| Monitoring Traffic Safety Risks (Operation Phase) | Along the project road | Operation (indicated per monitoring) | Post-construction accident rates (baseline vs. Year 1–2) Effectiveness of implemented RSA recommendations (rumble strips, junction design, roundabout geometry, delineation) Use of grade-separated agricultural crossings (if included in design) | NRA/Contractor/SE Police statistics - NRA traffic analysis (quarterly 1-2 years) As-built verification - RSA post-opening audit (at opening + 1year) | Implementation costs |
| Monitoring Mobility Impacts on Residents (Construction Phase) | Along the project road | Construction (indicated per monitoring) | Average delay time due to detours (minutes) Accessibility to essential services (health centres, schools, LPAs) | NRA/Contractor/SE Traffic monitoring - GPS mapping (monthly) | Implementation costs |

| Environmental indicator / parameter | Location | Frequency | Type of monitoring | Responsibility | Cost |
|--|---|---|---|---|-----------------------------|
| | | | | Household surveys (sample) - LPA feedback (quarterly) | |
| Monitoring of Lot-Specific Risks Identified by RSA | Along the project road | Pre-construction/ Construction/Operation (indicated per monitoring) | Lot 1 (Agricultural Access Mismatch): number of RSA-flagged access points corrected in final design vs. outstanding Lot 4 (Bypass): - adequacy of roundabout geometry - safe merging at border-bound freight flows | NRA/Contractor/SE RSA comparison - Design team reports (monthly) RSA follow-up - Site inspection (monthly – construction/ Year 1 - operation) | Implementation costs |
| Monitoring Access During Temporary Road Closures | Along the project road | Construction (indicated per monitoring) | Advance notice (days) given for closures - Number of households/businesses informed | NRA/Contractor/SE Communication records; LPAs confirmations (per closure) | Implementation costs |
| Monitoring of Emergency Access | Along the project road | Construction (indicated per monitoring) | Response times for ambulance/fire services (baseline vs. during works) Number of critical access points temporarily blocked without emergency alternative | NRA/Contractor/SE Emergency service logs - LPA feedback (quarterly) Site inspection (monthly) | Implementation costs |
| Monitoring of Access Restoration After Construction | Along the project road | Operation (indicated per monitoring) | Number and type of accesses reinstated (household, commercial, agricultural) Community satisfaction on restored access | NRA/Contractor/SE Field inspections - As-built plans (at construction completion) Closing consultations - GRM follow-up (at handover) | Implementation costs |
| Community Health, Safety and welfare | | | | | |
| Community Health – Dust, Air Quality, Noise and Vibration (Construction Phase) | All Lots; priority: Lot 1 (Băcioi, Străisteni, Răzeni, Horești, Porumbrei); Lot 2/3 village junctions, Ciucur-Mingir; Lot 4 Giurgiuilești | Construction (indicated per monitoring) | Number of dust complaints from residents (per lot/settlement) - Frequency of water spraying near settlements vs. plan - Visual dust observations on haul roads and in village sections Noise levels at sensitive receptors (schools, clinics, churches, dense residential clusters) compared with standards - Number and % of noisy activities restricted to daytime hours as per ESMP Number of vibration monitoring points in Străisteni, Răzeni, Giurgiuilești and other high-risk areas - Number of verified damage claims vs. baseline condition surveys | NRA/Contractor/SE Site inspection checklists - Contractor dust suppression log - GRM database (weekly, daily checks in peak earthworks) Noise measurements (spot & short-term) - Work schedule review (monthly and during high-noise activities) Vibration monitoring reports - Pre- and post-construction condition surveys - GRM/claims records (Before works, mid-construction, and at completion) | Contractor costs |
| Community Health – Access to Health Services and Emergency Response | Along the project road | Construction (indicated per monitoring) | Reported delays in ambulance/fire response times due to construction detours Number of incidents where access to medical points/clinics was blocked or significantly restricted | NRA/Contractor/SE Emergency services records - LPA feedback (semi-annually) GRM complaints - Site inspection (quarterly) | Implementation costs |
| Worker–Community Interaction and Communicable Disease Risks | All work camps and construction sites, all affected settlements | Construction (indicated per monitoring) | Implementation of worker health screening and hygiene measures (yes/no; % of workers screened) Number of community complaints related to | NRA/Contractor/SE Contractor OHS & HR records - Health & hygiene protocols (quarterly) | Contractor costs |

| Environmental indicator / parameter | Location | Frequency | Type of monitoring | Responsibility | Cost |
|--|------------------------|---|--|---|-----------------------------|
| | | | worker behaviour (harassment, alcohol use, disrespect, noise from camps) | GRM database - SEP engagement minutes (monthly) | |
| Community Safety – Traffic and Road Safety (Construction Phase) | Along the project road | Construction (indicated per monitoring) | Number of traffic accidents and near-misses involving project vehicles (classified by type: pedestrian, cyclist, vehicle–vehicle) Compliance with speed limits by construction vehicles in settlements (share of checks within limit) Number of hazardous situations identified during safety inspections (open excavations unfenced, unsafe diversions, missing signs) and % corrected within defined timeframe | NRA/Contractor/SE/Police Contractor incident logs - Police data (monthly) Random speed checks (monthly) Daily/weekly site safety inspections – Non-conformance register | Contractor costs |
| Community Safety – Pedestrians, Children, School Transport | Along the project road | Construction (indicated per monitoring) | Number and adequacy of temporary safe crossings near schools, bus stops, cemeteries and markets – Presence of barriers/fencing separating pedestrians from work areas Incidents/complaints related to unsafe crossings, bus stop conditions, or school transport issues | NRA/Contractor/SE Site inspections - TMP & CHSP review (weekly) GRM records - Meetings with school directors and transport operators (monthly) | Implementation costs |
| GBVH and Harassment Risks | Along the project road | Construction (indicated per monitoring) | Existence of GBVH Action Plan and worker Code of Conduct – Percentage of workers trained on GBVH and community interaction Number and type of GBVH-related complaints; proportion resolved and referred to specialised services (if applicable) | NRA/Contractor Contractor training records - HR/induction documentation (quarterly) GRM database (including confidential channels) - NGO/LPAs feedback where involved (quarterly) | Contractor costs |
| Community Welfare – Economic Activities and Livelihoods (Community Health and Safety Link) | Along the project road | Construction (indicated per monitoring) | Number of businesses reporting loss of customer access or reduced visibility due to construction arrangements Number of cases of crop damage or property damage (walls, fences, gates) registered and compensated | NRA/Contractor/SE GRM data - Business surveys (fuel stations, roadside markets, agro-tourism, storage depots) (quarterly) GRM log - RAP & ESMP records - Damage survey reports (quarterly) | Implementation costs |
| Community Information and Risk Communication (Community Health and Safety-related) | Along the project road | Construction (indicated per monitoring) | Number of information events/leaflets/social media posts explaining risks, construction schedules, safety measures % of announced works where communities received ≥72 hours advance notice (closures, detours, high-noise works) | NRA/Contractor/SE SEP engagement log – Copies of materials (notices, FB posts, Viber messages) – (monthly) Review of notices vs. actual start dates - LPA confirmation (quarterly) | Implementation costs |
| Project-Wide Construction Community Health and Safety Risks | Along the project road | Construction (indicated per monitoring) | Number and nature of CHS-related incidents/complaints (dust, noise, unsafe driving, trespass accidents, property damage, worker behaviour) | NRA/Contractor/SE GRM database analysis (coded by topic, location, lot, gender) (monthly) | Implementation costs |

| Environmental indicator / parameter | Location | Frequency | Type of monitoring | Responsibility | Cost |
|--|------------------------|---|--|---|-----------------------------|
| | | | Implementation status of CHS measures in Construction Environmental and Social Management Plan (CESMP) and Community Health and Safety Plan (CHSP) | E&S audits - Plan vs. practice review (quarterly) | |
| Operation Phase – Road Safety and Community Health | Along the project road | Operation (indicated per monitoring) | Road traffic accidents (fatalities, serious injuries) per year after opening vs. baseline (by lot, settlement, type of user) Functionality and use of pedestrian and bus infrastructure (bus bays, service roads, over/underpasses, sidewalks) Perception of community safety and wellbeing (traffic, noise, access to services) | NRA, Police Police and NRA statistics - RSA post-opening assessment (annual Year 1-5) Site inspections - Community feedback surveys (annual first 3 years) Household survey or focus groups (sample) (at year 2-3 of operation) | Implementation costs |
| Historical and Cultural heritage | | | | | |
| Protection of Known Cultural Heritage Assets (chance find procedure) | Along the project road | As required (in a case of discovery) | All works conducted outside legally defined protection zones (100–500 m) - No intrusion into buffer zones - No material storage near monuments No physical damage to memorials, churches, burial sites, local monuments | NRA/Contractor/SE Site inspections - Photographic evidence – monthly construction Field inspections - LPA confirmations | Contractor costs |
| Protection of Archaeological Resources (Chance Finds) | Along the project road | Continuous | Number of chance finds reported - Timeliness of reporting to authorities (within 24 hours) Adherence to Chance Finds Procedure (works stopped, area secured, GPS recorded, notification sent) | NRA/Contractor/SE Chance Finds Register - Worker reports - Incident record forms Review documentation - Interview workers - Audit by Engineer – per incident | Implementation costs |
| Avoidance of Sensitive Areas (Trajan's Wall – Lot 2) | Lot 2 | Construction (indicated per monitoring) | No excavation, trenching, or material removal within defined boundaries - No vehicle/machinery circulation in restricted zone | NRA/Contractor/SE Physical demarcation with fencing - GPS control points - Weekly inspections | Implementation Costs |
| Dust, Noise, and Vibration Impacts on Cultural Heritage in Villages | Along the project road | Construction (indicated per monitoring) | Dust deposition near churches/monuments visibly controlled - No excessive dust accumulation | NRA/Contractor/SE Visual inspection- Photographic checklist - Weekly during construction; daily in summer | Implementation Costs |
| Preservation of Access to Cultural and Memorial Sites | Along the project road | Construction (indicated per monitoring) | No blockages to cemeteries, churches, festival grounds - Traffic management during local ceremonies | NRA/Contractor/SE TMP reviews - LPA confirmations - Field inspections Monthly; extra before holidays (Easter, Memorial Days) | Contractor costs |
| Worker Awareness and Training | Along the project road | Construction (indicated per monitoring) | Number of workers trained in cultural heritage protection and chance finds (induction + toolbox talks) Workers can identify potential archaeological items (survey tests) | NRA/Contractor/SE Short on-site Q&A during audits -quarterly | Contractor costs |
| Monitoring of Giurgiuilești Cannon Monument | Giurgiuilesti | Construction (indicated) | No accidental contact/damage during works - | NRA/Contractor/SE | Contractor costs |

| Environmental indicator / parameter | Location | Frequency | Type of monitoring | Responsibility | Cost |
|--|---|---|---|---|----------------------|
| | | per monitoring) | Protective barriers installed if working nearby Coordination with LPA regarding planned relocation activities | Visual inspection - Photo logs Monthly construction Meeting - minutes - Confirmation from LPA – as needed | |
| Intangible Cultural Heritage (Festivals, Rituals) | Along the project road | Construction (indicated per monitoring) | No interruption to cultural events - Traffic management adapted during major local festivals | NRA/Contractor/LPAs Coordination with LPAs – TMP – annual before known events updates | Contractor costs |
| Compliance with National Legislation and EBRD PR8 | All lots | Construction (indicated per monitoring) | All approvals/notifications made prior to works - Cultural heritage permits updated (if required) | NRA/Contractor Document review - Baseline update checks – before works and annually | Implementation Costs |
| Occupational Health and Safety (PR 4), Labour and Working conditions (PR2), Supply Chain OHS & Labour | | | | | |
| Overall OHS Performance in Construction | All lots | Construction (indicated per monitoring) | Total Recordable Injury Frequency Rate (TRIFR) - Lost Time Injuries (LTI) per month/lot - Number of near-misses reported vs. investigated and closed Number of serious incidents (fatalities, permanent disability, major accident) - Number of serious incidents reported to client/EBRD within required timeframe | NRA/Contractor/SE Contractor OHS statistics - Incident & near-miss registers - OHS dashboards (Monthly OHS Report; Quarterly E&S Monitoring Report) Incident logs - Incident notification forms (as incidents occur; aggregated monthly) | Contractor costs |
| Traffic-Related Worker Safety | All lots | Construction (indicated per monitoring) | Number of work zones with compliant work-zone protection (barriers, cones, shadow vehicle, signage) vs. total active work zones - Number of traffic-related incidents involving workers | Contractor/SE Daily work-zone inspections - TMP compliance checklists - Incident logs (daily checks; weekly summary) | Contractor costs |
| Noise, Vibration, Weather Exposure (Workers) | All lots | Construction (indicated per monitoring) | % of workers in high-noise tasks using hearing protection - Number of noise monitoring points vs. plan Number of recorded heat stress / cold stress incidents - Implementation of heat/cold protocols (rest breaks, shaded areas, warm PPE) Number of workers with high vibration exposure (hours/day) - Use of anti-vibration tools/job rotation for those tasks | Contractor/SE PPE compliance inspections – Noise measurements (monthly) OHS medical records - Site inspections (checklists)-monthly (more frequent in extreme seasons) Task logs - JHAs/method statements - monthly | Contractor costs |
| Falls, Slips, Trips and Work at Height | Bridges, culverts, embankments, gantries (all lots) | Construction (indicated per monitoring) | Number of work-at-height permits issued vs. compliance inspections - Findings of inspections (proper harnessing, anchorage, guardrails) Number of slip, trip, fall incidents - Housekeeping non-conformances identified and closed | NRA/Contractor/SE Permit-to-work system - Work-at-height inspection forms – biweekly Incident records – Housekeeping inspection checklists - weekly | Contractor costs |
| OHS Training, Induction, Job Hazard Analyses | All lots | Construction (indicated | % of workforce having received OHS | NRA/Contractor | Contractor costs |

| Environmental indicator / parameter | Location | Frequency | Type of monitoring | Responsibility | Cost |
|--|---------------------------|---|---|--|----------------------|
| | | per monitoring) | induction - % of workers trained for specific high-risk tasks (work at height, confined space, traffic management, hot works) Number and quality of Job Hazard Analyses (JHAs) prepared for high-risk activities - Frequency of toolbox talks (per crew/week) | Training registers - Induction attendance sheets – monthly JHA records - Toolbox talk minutes - weekly | |
| Roadside Maintenance Safety (PR4 – Operation and Monitoring) | All lots | Operation (indicated per monitoring) | Existence and implementation of Maintenance Traffic Management Plan (MTMP) - Number of maintenance worksites with full temporary traffic control in place (signs, cones, speed restriction, shadow vehicle) Number of accidents/near-misses involving maintenance crews and live traffic Use of high-visibility PPE by maintenance staff (% compliance) | NRA/Maintenance Contractor MTMP review - Field inspections (quarterly; each maintenance campaign) Incident records; Police data - quarterly Spot checks - monthly during maintenance works | Contractor costs |
| Work Scheduling & Weather Risk in Operation and Monitoring | All lots | Operation (indicated per monitoring) | Number of maintenance activities conducted during off-peak vs. peak hours - Number of unplanned works during hazardous conditions (fog, snow, low visibility) | NRA/Maintenance Contractor Work orders - Maintenance logs quarterly | Contractor costs |
| HR Policy, Labour Management System (Client – NRA) | All lots | Construction (indicated per monitoring) | Existence and adoption of PR2-aligned HR Policy and Labour Management Procedures - Number of internal reviews of LMP implementation per year. | NRA Document review - Management review minutes - Annual PR2 Compliance Report. | Implementation costs |
| Contractor Labour Management (Construction Phase) | All lots | Construction (indicated per monitoring) | Existence of Contractor Labour Management Plan and Worker Code of Conduct (aligned with PR2) - Number of labour audits/inspections carried out by Owner's Engineer/NRA Non-compliances identified (working hours, wages, PPE, welfare, contracts, discrimination) and % with CAPA closed | NRA/Contractor/SE Contract review - Audit reports - Site inspection records – quarterly Labour audit findings - CAPA tracking sheet - quarterly | Contractor costs |
| Working Hours, Wages, Contracts | All lots | Construction (indicated per monitoring) | % of workers with written contracts meeting Moldovan law and project requirements - % of workers with recorded working hours and wage payments Number of grievances related to wages, working hours, unfair dismissal, discrimination | NRA/Contractor/SE HR records - Payroll and timesheets - Worker interviews – (quarterly) Worker GRM database (monthly) | Contractor costs |
| Worker Accommodation (if used) | All worker camps (if any) | Construction (indicated per monitoring) | Existence and implementation of Worker Accommodation Plan - Number of inspections of camps vs. non-compliances (overcrowding, hygiene, fire safety, WASH, gender-sensitive facilities) | NRA/Contractor/SE Camp inspection reports - OHS/HR audits (monthly) | Contractor costs |

| Environmental indicator / parameter | Location | Frequency | Type of monitoring | Responsibility | Cost |
|--|---|---|---|---|------------------|
| GBV/SEA, Harassment and Non-Discrimination | All lots | Construction (indicated per monitoring) | Code of Conduct including GBV/SEA, non-discrimination and harassment clauses signed by % of workers - Number of GBV/SEA trainings delivered and participants (by gender, contractor) Number of GBV/SEA or harassment-related complaints, and % resolved in line with procedure | NRA/Contractor/SE HR training records – CoC sign-off forms (quarterly) Confidential worker GRM records (quarterly) | Contractor costs |
| Worker Grievance Mechanism (Internal GRM) | All lots | Construction (indicated per monitoring) | Availability of anonymous, accessible worker GRM (multiple channels) - Number of grievances, average resolution time, % resolved vs. pending | NRA/Contractor/SE Worker GRM statistics - Worker interviews - monthly | Contractor costs |
| Worker Participation and OHS Governance | All lots | Construction (indicated per monitoring) | Existence and activity of Joint OHS Committees (meetings held, issues raised, actions tracked) | NRA/Contractor/SE Minutes of OHS Committee meetings - Action trackers - quarterly | Contractor costs |
| Supplier Screening and Pre-Qualification (PR2/PR4) | All lots | Construction (indicated per monitoring) | % of high-risk suppliers (quarries, asphalt plants, bitumen suppliers, transport subcontractors) screened for OHS/labour compliance before engagement Existence of supply-chain due diligence procedure in Contractor's LMP/OHS system | NRA/Contractor Supplier questionnaires - License and permit review (prior to contract award; annual update) Document review - annual | Contractor costs |
| Supplier OHS and Labour Performance | All lots | Construction (indicated per monitoring) | Number of supplier site audits conducted per year - Number and type of non-compliances identified (PPE, unsafe plant, working hours, child/forced labour indicators) Number of serious incidents at supplier sites linked to Project; corrective actions taken | NRA/Contractor Supplier audit reports - Follow-up visits (semi-annually, more frequent for very high-risk suppliers) Incident notifications from suppliers - Contractor audit follow-up - as incidents occur | Contractor costs |
| Supply-Chain CAPA (Corrective and Preventive Actions) | All lots | Construction (indicated per monitoring) | Number of CAPA raised with suppliers and % closed within agreed timeframe | NRA/Contractor CAPA tracking tool - Audit follow-up checks - quarterly | Contractor costs |
| Prohibition of Child and Forced Labour in Supply Chain | All lots | Construction (indicated per monitoring) | Contractual clauses on child/forced labour included in all major supply contracts (yes/no) - Evidence of age verification and employment practices at supplier sites (spot-checked) | NRA/Contractor Contract review - Supplier audits - Worker interviews (annual, plus during high-risk supplier audits) | Contractor costs |
| Transport-Related Community & Worker Risks (Suppliers) | All lots | Construction (indicated per monitoring) | Number of traffic violations or accidents involving supplier trucks on the M3 corridor and approach roads | NRA/Contractor Police and project incident records | Contract costs |
| Economic Development, Employment and Local Value Creation | | | | | |
| Regional Economic Development & Trade | All lots Key nodes: Băcioi, Răzeni, Porumbrei, Cimișlia, Giurgiuilești, Free Port / border area | Operation (indicated per monitoring) | Qualitative perception of economic benefits (improved connectivity, trade, access to markets) among businesses and LPAs - Examples of new/expanded businesses citing M3 improvements as a factor | NRA/Contractor/LPAs Interviews / FGDs with businesses and LPAs - Short post-construction survey - once in early operation (Year | N/A |

| Environmental indicator / parameter | Location | Frequency | Type of monitoring | Responsibility | Cost |
|--|----------|---|---|---|------------------|
| | | | Change in average travel time on key sections (Chişinău–Porumbrei; Porumbrei–Cimişlia; Cimişlia–Giurgiuleşti) vs. baseline | 2–3) NRA traffic/time–distance surveys (once at opening + once in Year 2) | |
| Local and National Supplier Participation | All lots | Construction (indicated per monitoring) | Value and % of contracts awarded to Aol/district/national suppliers (works, services, goods) - Number of active local suppliers (by sector) engaged during construction Inclusion of ESG / labour / OHS criteria in supplier pre-qualification and selection | NRA/Contractor Contractor procurement records - Contract registers - Supplier database – (quarterly during construction) Review of tender documents and contracts – (at tender & contract award) | Contractor costs |
| Local Employment and Skills Development | All lots | Construction (indicated per monitoring) | Total number of workers employed on the Project (per month) - % of workforce by origin: Aol localities / district / rest of Moldova / foreign Number and % of unskilled and semi-skilled posts filled by Aol residents (vs. indicative target, e.g. 30–40%) Number of induction and skills-training sessions delivered (OHS, traffic management, equipment operation, concrete/asphalt works) and number of participants (by origin and gender) Number of vulnerable job-seekers (women, youth, low-income) hired through targeted outreach (if tracked) | NRA/Contractor/LPAs Contractor HR records - Monthly workforce statistics (monthly) HR and recruitment records - LPA lists of referred candidates (quarterly) Training registers - Certificates (where applicable) – quarterly Recruitment and HR data - LPA / social worker inputs – semi-annual | Contractor costs |
| Equal and Transparent Access to Job Information | All lots | Construction (indicated per monitoring) | Number and type of channels used to advertise job opportunities (mayor's offices, notice boards, online, ANOFM, job portals, local radio) Number of job announcements shared via LPAs and ANOFM vs. those only via online/private channels Perception of fairness and transparency in recruitment among local residents (esp. women, youth, low-income households) | NRA/Contractor SEP and CLO logs - Copies of advertisements – quarterly Cross-check with LPAs and ANOFM – quarterly Short community survey or FGDs (once mid-construction + once in late construction) | Contractor costs |
| Vulnerable Group Inclusion in Economic Opportunities | All lots | Construction (indicated per monitoring) | Existence of inclusion measures in recruitment procedures (non-discrimination, outreach to women, youth, disadvantaged households) Number of information events where employment opportunities are presented to vulnerable groups (women's associations, youth groups, low-income households, minority communities where relevant) | NRA/Contractor Review of Contractor HR policies and procedures - Contract annexes – annual SEP/CLO logs - Attendance lists – semi-annual | Contractor costs |
| Monitoring of Employment and Economic Benefits | All lots | Construction (indicated per monitoring) | Submission of monthly Contractor employment and procurement statistics to | NRA/Contractor NRA document register - | Contractor costs |

| Environmental indicator / parameter | Location | Frequency | Type of monitoring | Responsibility | Cost |
|---|----------|---|---|--|----------------------|
| | | | NRA (yes/no; on time) Number of internal audits or spot-checks on employment data, recruitment practices and local hiring claims Integration of employment and local value indicators into overall ESMP/ESIA monitoring and reporting | Contractor reporting – monthly Audit reports - Consultant review findings – semi-annual Review of E&S monitoring reports - annual | |
| Pressure on Local Services (from Influx & Economic Change) | All lots | Construction and operation (indicated per monitoring) | Qualitative feedback from LPAs on changes in pressure on local services (water, waste management, roads, social services) due to project workforce and economic activity | NRA/Contractor/LPAs Semi-structured interviews with mayors and local service providers- Annually during construction and early operation GRM categorisation by theme – Monthly; summarised quarterly | N/A |
| Cross-Border and Logistics Benefits (Giurgiulești Bypass & Border Roads) | Lot 4 | Operation (indicated per monitoring) | Functionality and utilisation of truck parking area and improved access road (occupancy rates, user feedback) Perceived improvement in traffic flow and logistics performance by key stakeholders (truck operators, customs brokers, local businesses) | NRA/Port/CBP Port/BCP operator statistics - Truck parking operator logs - User surveys (sample) – (annual first 3 years of operation) Stakeholder interviews - short questionnaires (year 2–3 of operation) | Implementation costs |

Table10-1: Environmental and Social Monitoring Plan

Annexes

Annex 1.1: Records of public meetings and consultations held

Annex 1.2: Social Management Plans

Annex 2.1: Reference list of fauna species of European interest for which Emerald sites have been declared

Annex 2.2: Reference list of flora species of European interest for which Emerald sites have been declared

Annex 2.3: List of representative species of fauna (Mammalia, Reptilia and Amphibia), which have the areal in the area of M3 Road

Annex 2.4: List of targets bird species, with protection status, which have the areal of M3 Road

Annex 2.5: Most Common Species of Pollinators in the Republic of Moldova

Annex 2.6: Maps of the Emerald sites in the M3 Road Area

Annex 3: Traffic flow and traffic forecasting

Annex 4: National and international regulatory framework, standards and guidelines, treaties applicable

Annex 5: Environmental Factors Monitoring Report for the work "Rehabilitation and extension of the national public road M3 Chişinău - Giurgiuleşti - Border with Romania" prepared during the period February-March 2026, by GEOSTUD SRL (Romania)

Annex 5.1: Environmental Factors Monitoring Report

Annex 5.2: M3 – Air Test Reports

Annex 5.3: M3 – Granulometry Test Reports

Annex 5.4: M3 – Soil Test Reports

Annex 5.5: M3 – Noise Test Reports

Annex 5.6: M3 – Water Test Reports

Annex 5.7: M3 – Noise Modelling

Annex 5.8: M3 - Proposed locations for the placement of sound-absorbing panels