S.E. MOLDELECTRICA | MINISTRY OF ENERGY | THE WORLD BANK | MEPIU

POWER SYSTEM DEVELOPMENT PROJECT

(P160829)

THE DETAILED DESIGN STAGE

FINAL REPORT

ENVIROMENTAL AND SOCIAL IMPACT ASSESSMENT & ESMP FOR 400 KV OHTL VULCANESTI - CHISINAU

THE TARACLIA DISTRICT

Developed by:
V. Vladicescu, N. Vladicescu
& A. Burlacu (MEPIU)

CHISINAU 2023

Contents

CHAPTER 1: INTRODUCTION 10
1.1 Description of the Overall project 10
1.1.1 The Project Context 10
1.1.2 Project Development Objective 10
1.1.3 Project Beneficiaries 10
1.1.4 Project Parts 10
1.2 The construction of the new 400 kV OHTL Vulcanesti – Chisinau 11
1.3 Purpose of the site-specific ESIA 11
1.4 Approach and methodology of the ES impact assessment 12
1.4.1 General procedure 12
1.4.2 Environmental and Social Impact Assessment Approach specific for DD stage 12
1.4.2.1 General 12
1.4.2.2 Screening criteria for risks assessment 13
1.4.2.2.1 The World Bank ES requirements 13
1.4.2.2.2 The applicable Republic of Moldova ES requirements 14
1.4.2.2.2.1 The applicable requirements for technical design 14
1.4.2.2.2 Risk assessment traceability from Feasibility and Pre-design stages 16
1.4.2.2.3 Site visits 17
1.4.2.2.4 The Project Area of Influence 17
1.4.2.3 Identification of potential impacts and mitigation measures 18
1.5 Organization of the ES impact assessment report 21
CHAPTER 2: POLICY AND REGULATORY FRAMEWORKS 22
2.1 Applicable Policy and Regulations of the Republic of Moldova 22
2.2 Environmental Acts/Codes/Regulations 22
2.3 Environmental assessment vetting process 24
2.4 Other important social and environment regulations 25
2.5 International Treaties related to environment and social standards 28
2.6 World Bank Operational Policies 29
2.7 Provision of the Regulation regarding the protection of electrical network 34
CHAPTER 3: THE DESCRIPTION OF THE 400 KV OHTL PASSING THE TERRITORY OF THE TARACLIA DISTRICT 37
3.1 General data about the selected corridor in the Taraclia District 37
3.1.1 Contractor facilities 41
3.2 Description of the 400 kV OHTL equipment 42
3.2.1 OHTL towers 42
3.2.2 OHTL conductors 43
3.2.3 OHTL insulation 43
3.2.4 Artificial earthing system 43
3.2.5 Tower foundations 43
3.2.6 Notification, warning and aerial plates 44
3.2.7 Access roads 44
3.2.8 Safety Requirements 45
3.2.8.1 The OHTL safety zone 45
3.3 Contractors Facilities 47
3.3.1 Construction Activities 47
3.3.2 Operation 47
3.3.2.1 Operation by Contractor 47
3.3.2.2 Operation by the Beneficiary SE Moldelectrica 48
3.3.3 Decommissioning 48
3.3.3.1 Decommissioning by Contractor 48
3.3.3.1 Decommissioning by the Beneficiary SE Moldelectrica 48
3.4 Analysis of Alternatives for the 400 kV OHTL 48

3.5 Line Survey and Route Finalization 49
3.5.1 Route Finalization using LiDAR Survey 49
3.5.2 Profile Plans 49
3.5.3 Approval of Plans and Profiles 50
3.5.4 Specific Plans and Profiles for the Taraclia District 51
3.6 Implementation Schedule 57
CHAPTER 4: SOCIO-ECONOMIC BASELINE 58
4.1 Administrative Setup 58
4.1.1 General 58
4.1.2 The village Albota de Sus 59
4.1.3 The village Albota de Jos 60
4.1.4 The village Balabanu 60
4.1.5 The village Novosiolovca 61
4.1.6 The village Aluatu 61
4.1.7 The village Salcia 62
4.1.8 The village Musaitu 63
4.1.9 The village Vinogradovca 63
4.2 Population and Demography 64
4.2.1 Population and Demography in the village Albota de Sus 68
4.2.2 Population and Demography in the village Albota de Jos 70
4.2.3 Population and Demography in the village Balabanu 72
4.2.4 Population and Demography in the village Novosiolovca 73
4.2.5 Population and Demography in the village Aluatu 75
4.2.6 Population and Demography in the village Salcia 77
4.2.7 Population and Demography in the village Musaitu 79
4.2.8 Population and Demography in the village Vinogradovca 81
4.3 Occupation, Income and Expenditure 83
4.4 Access to Infrastructure faculties 84
4.5 Gender and Social Divisions (Status of Women and their role in local development) 84
4.6 Poverty profile including disadvantaged and vulnerable people 86
4.7 Land ownership, livelihoods of people 89
CHAPTER 5: ENVIRONMENTAL BASELINE 91
5.1 Physical Environment 91
5.1.1 Project Influence Area 91
5.1.2 Physiography and Land Use in the Taraclia District 91
5.1.2.1 Physiography and Land Use in the Taraclia District 91
5.1.3 Climate 92
5.1.4 Hydrology 94
5.1.5 Geology 96
5.1.6 Seismicity 98
5.2 Chemical Environment 99
5.2.1 Air Quality and Climate Change 99
5.2.1.2 Climate Change 102
5.2.2 Noise and Vibration Levels 103
5.2.3 Water quality 105
5.2.3.1 Surface water quality 105
5.3 Biological Environment 107
5.3.1 General Ecosystem information 107
5.3.2 Flora and forest resources 108
5.3.2.1 General information 108
5.3.2.2 Monument of nature „Musaitu Cliff" 108
5.3.2.3 Monument of nature „Budai Cliff" 109
5.3.2.4 Monument of nature Bugeac South Steppe 111
5.3.2.6 The Emerald Network in the Republic of Moldova 112

5.3.3 Fauna 118
5.3.3.1 General information 118
5.3.3.1 Local and migratory birds 119
5.4 Cultural Heritage 125
CHAPTER 6: ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT 128
6.1 General 128
6.2 Sensitivity of Impacts during design, construction, operational and decommissioning phases 128
6.2.1 Valued Environmental and Social Components 129
6.2.2 Special regime of protection 129
6.2.3 Sources of Impacts 129
6.2.4 Intensity and Direction of Impact 131
6.2.5 Summary Assessment of Receptor Sensitivity 134
6.3 Magnitude of Impacts 135
6.3.1 Magnitude of Impacts during Detailed Design Phase 135
6.3.2 Magnitude of Impacts during Construction Phase 137
6.3.2 Magnitude of impacts during the operational phase 140
6.3.3 Summary of Key Project Activities and Impact Magnitude 141
6.4 Impact Significance 143
6.5 Potentially positive impacts 143
6.5.1 Construction Phase 143
6.5.1.1 Biophysical Impacts 143
6.5.2 Operational and decommissioning Phases 144
6.5.2.2 Community Health and Safety 144
6.5.2.3 Opportunities for Gender balanced policy promotion 145
6.6 Potentially negative impacts 145
6.6.1 Construction Phase 145
6.6.1.1 Physical impact 145
6.6.1.2 Biological Impacts 146
6.6.2 Operational and Decommissioning Phases 148
6.6.2.3 Biological Impact 148
6.6.2.4 Social Impact 149
CHAPTER 7: MITIGATION MEASURES 150
7.1 General Approach 150
7.2 Mitigation Measures for Construction Phase 150
7.2.1 General 150
7.2.2 Mitigation of Environmental and Social impacts 150
7.2.2.1 Soil and subsoil protection 150
7.2.2.2 Hydrology/water resources protection 151
7.2.2.3 Air protection 152
7.2.2.4 Climate change 153
7.2.2.5 Noise and vibration 153
7.2.2.6 Natural protected areas 154
7.2.2.7 Electrocution collision 154
7.2.2.8 Forested land protection 154
7.2.2.9 Access to land and land use 155
7.2.2.11 Societal services and infrastructure 156
7.2.2.12 Scenery and visual amenity 156
7.2.2.13 Electric and magnetic fields (Community Health & Safety) 156
7.2.2.14 Public and occupational health 157
7.2.2.15 Cultural and archaeologic heritage 157
7.3 Operational Phase 158
7.3.1 General 158
7.3.2 Mitigation of Environmental and Social Impacts 158
7.3.2.1 Air protection 158

7.3.2.2 Climate change 159
7.3.2.3 Noise and vibration 159
7.3.2.4 Vegetation management 159
7.3.2.5 Electrocution collision 159
7.3.2.6 Electric and magnetic fields 160
7.4 Decommissioning Phase 160
7.4.1 General 160
7.4.2 Mitigation of Environmental and Social Impacts 161
CHAPTER 8: CAPACITY BUILDING 167
8.1 General 167
8.2 Capacity building for construction phase 167
8.3 Capacity building for operational phase 169
CHAPTER 9: PERFORMANCE EVALUATION 171
9.1 Monitoring, measurement, analysis and performance evaluation 171
9.1.1 General 171
9.1.2 Monitoring and measurement during Construction Phase 171
9.1.3 Monitoring and measurement during Operation Phase 172
9.1.4 Monitoring the compliance with ES requirements 177
9.1.4.1 Compliance with requirements of WB 177
9.1.5 Compliance with applicable RM requirements 177
9.1.5.1 Construction Permit issuance 177
9.2 Internal audit 177
9.3 Management Review 178
CHAPTER 10: EVALUATION OF COMPLIANCE WITH REQUIREMENTS OF ESMP 179
10.1 General 179
10.2 Incidents 179
10.2.1 Incidents occurring during construction phase 179
10.2.1 Incidents occurring during operational phase 180
10.3 Nonconformity and corrective action 180
10.3.1 Identified non-conformity during construction phase 180
10.3.2 Identified non-conformity during operational phase 180
CHAPTER 11. INSTITUTIONAL ARRANGEMENTS 182
11.1 Institutional responsibilities 182
11.2 Project Management Unit 182
11.3 Project Implementation Unit 182
11.4 The Beneficiary SE Moldelectrica 183
11.5 Construction Supervision Engineer 183
11.6 General Contractor 184
11.7 Monitoring Supervising Agencies 184
11.7.1 Roles and responsibilities of the State Supervision Agencies for design phase 184
11.7.1 Roles and responsibilities of the State Supervision Agencies for operational phase 185
CHAPTER 12: STAKEHOLDER ENGAGEMENT AND PUBLIC CONSULTATIONS 187
12.1 Public Consultations and Disclosure 187
12.1.1 Public Consultation Meetings 187
12.1.2 Consultations Feedback/Grievance Redress Mechanism 190
12.1.3 Framework for Future Public Consultations 191
12.1.4 Grievance Redress Mechanism for consultation process 192
12.2 Installation of the Site Informational Panel on the construction site 192
12.3 Consultation and Participation 193
12.3.1 Consultation and participation of workers 193
12.3.1 Consultation and participation of the community 193
13 ANNEXES 194
Annex 13.1: The Incident Report form 195
Annex 13.2: The Nonconformity and Corrective Actions Report form 196

Annex 13.3: The feedback form for public consultation process 198
Annex 13.4: Public Consultation Report template 199
Annex 13.5: The Human Resource Procedure template 200
Annex 13.6: Public Consultation Report for ESIA&ESMP specific for the 400 kV OHTL and Chisinau SS. 201

ABBREVIATIONS

CSE	Construction Supervision Engineer
DD	Detailed Design
EC	European Commission
EPI	Environmental Protection Inspectorate
ESHS	Environmental, Social, Health and Safety
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
ESS	Enviornmental and Social Standards
EU	European Union
FS	Feasibility Study
GD	Government decision
GRM	Grievance Redress Mechanism
H&S	Health and Safety
ILO	International Labour Organization
ISO	International Standard Organization
LPA	Local Public Authority
ME	S.E. Moldelectrica
MEPIU	Moldova energy project implementation unit
MoIRD	Ministry of Infrastructure and Regional Development
MoEn	Ministry of Environment
NAA	National Archaeological Agency
NAPH	National Agency for Public Health
OHS	Occupational Health and Safety
O&M	Operation & Maintenance
OHTL	Overhead transmission line
PAP	Project Affected People
PAI	Project Area of Influence
PD	Preliminary Design
PPE	Personal Protective Equipment
RAP	Resettlement Action Plan
RM	Republic of Moldova
SIMC	Social impact monitoring committee
SEP	Stakeholder Engagement Plan
TMP	Traffic Management Plan
ToR	Terms of Reference
TSO	Transmission system operator
WB	World Bank
WBS	World Bank Standards

Executive Summary

As per ToRs Environmental consulting services for development of the Site-Specific ESIA/ESMP for the construction of a new 400kV Vulcanesti - Chisinau Single-Circuit Overhead Transmission Line and upgrading of the 330/110/35 kV Chisinau Substation (Plant Design, Supply & Installation) at the detailed design stage and the requirements of the Environmental Permit no. 1/4745 of December 31, 2019 issued by the Environmental Agency and the World Bank's OP 1 Environmental Assessment, a site specific environmental and social impact assessment shall be developed, revised by the World Bank and approved by MEPIU before starting the construction works on site.

The site specific environmental and social impact assessment process identifies environmental and social aspects and hazards, assesses risks and establishes environmental and social requirements for controlling risks based on data provided from the detailed design process by taking into consideration the mitigation measures identified at the feasibility stage.

The present document provides a project description and context, applicable law and requirements specific for design, institutional responsibilities, specific environmental and social baseline for the construction of the 400 kV OHTL passing through the Taraclia District, the significant environmental/social impacts identified, which will most likely or positively occur during construction and operational phases, describes mitigation, monitoring and institutional measures to be taken during project implementation to eliminate adverse impacts, offset them, or reduce them to acceptable levels. The characteristic of the proposed the 400 kV OHTL passing through the Taraclia District are the following:

Technical Aspects	400 kV OHTL
Total Estimated Length	158 km
Length in the Taraclia District	26.2 km
Typical ROW	75 m
Type of Towers	Self-supporting latticed steel towers of suspension & tension type
Tower Spacing	308 m
Height of the Towers	44 to 53 m
Width of Base	18 to 23 m
Type of Conductors	ACSR 300/39 mm^2
Capacity of transport required	512 MVA per circuits
Height of line from ground (min.)	22 m

The Environmental and Social Management Plan (ESMP) describes mitigation actions required by the ESIA and how environmental and social impacts will be managed and monitored so they meet the requirements of national legislation and the World Bank's Operational Policies.

The Resettlement Action Plan (RAP) has been prepared in order to avoid or minimize involuntary resettlement, to mitigate adverse social and economic impact from land acquisition, to provide compensation for loss of assets at replacement costs, to restore or improve the livelihoods and standards of living and to provide resettlement assistance.

In order to keep under control residual risks, identified mitigation measures presented in this document have the scope to guide the General Contractor (GC) to prepare its own Environmental and Social Management Plan (CESMP) to be integrated in the Detailed Plan of Works on Site, to calculate the costs of the environmental protection and social impact mitigation measures that GC will undertake during the construction phase of the project.

Additionally, the present document establishes requirements for the Beneficiary S.E. Moldelectrica which shall implement the environmental and social requirements presented in ESMP during the operational and decommissioning phases in order to emphasize economic growth, inclusion and sustainability by including a strong concern for equity being a TSO member to support the synchronous connection of the Ukrainian and Moldovan Power Systems to ENTSO-E Continental Europe Power System.

The proposed capacity building measures for the Beneficiary Moldelectrica shall be taken into consideration in order to overcome technical, organizational and legal possible obstacles within ENTSO-E Continental Europe Power System.

CHAPTER 1: INTRODUCTION

1.1 Description of the Overall project

1.1.1 The Project Context

The World Bank Group has supported the development of the energy sector in Moldova through a combination of investments, policy lending, technical assistance, and guarantee operations, and is well placed to continue financing priority investments in the electricity transmission network based on the successful results of Energy I (P008555) and Energy II (P040558) Projects and assist in increasing the institutional capacity of the Moldovan transmission system operator.

The WB will support investments aimed at the construction of 400 kV Vulcanesti - Chisinau overhead transmission line, extension/upgrade of two existing substations, strengthening of power dispatch and metering system.

The construction of new transmission line and extension of the existing substations will enable a more reliable access to lower cost of electricity for consumers, improved productivity and competitiveness, creation of new jobs, and stronger economic growth. The Project is directly addressing the goal of creating physical electricity interconnections, thus increasing security of supply and creating potential opportunities for development of competitive markets and regional integration.

1.1.2 Project Development Objective

The objective of the project is to increase capacity and improve reliability of the power transmission system in Moldova.

1.1.3 Project Beneficiaries

The project beneficiaries are:
- All electricity consumers in Moldova connected (directly or indirectly) to the power transmission system,
- S.E. Moldelectrica (further ME) and other sector stakeholders in Moldova. ME will benefit from improved operational efficiency and reduction of transmission losses due to better grid management systems and capacity strengthening. Financial benefits will also accrue from a reduction of operating costs due to improved infrastructure and potential ability to engage in regional power trade. ME will benefit from capacity strengthening and technical assistance to carry out their mandates to implement regional power trade.

1.1.4 Project Parts

Part 1. Construction of Vulcanesti - Chisinau OHTL, including the following:
(a) Construction of approximately 158 km of 400kV Vulcanesti - Chisinau single circuit OHTL;

(b) Support through provision of consulting services for purposes of supervision of Parts 1 and 2 of the Project.

Part 2. Extension of two substations, including the (a) Upgrade of 330 kV Chisinau substation; and (b) Extension of 400 kV Vulcanesti substation.

Part 3. Strengthening of power dispatch and metering system, including the following:

(a) Upgrade of ME`s Supervisory Control & Data Acquisition System/Energy Management System;
(b) Upgrade of the ME`s Meter Management System (MMS);
(c) Construction of a new headquarters building for ME, including a Central Dispatch Center; and
(d) Development of technical specifications for SCADA/EMS and MMS.

Part 4. Technical Assistance and Project Management, including the following:

(a) Support to MEPIU for Project Management activities and Operating Costs, including provision of consulting services;
(b) Support to ME and MEPIU through the carrying out of Trainings;
(c) Carrying out an environmental audit of polychlorinated biphenyl (PCB) at Vulcanesti SS site;
(d) Carrying out project audits.

1.2 The construction of the new 400 kV OHTL Vulcanesti – Chisinau

The present document refers to the section of the 400 kV OHTL specific for the Taraclia District which passes on territories of villages Albota de Sus, Albota de Jos, Balabanu, Novosiolovca, Aluatu, Salcia, Musaitu and Vinogradovca.

1.3 Purpose of the site-specific ESIA

The purpose of the site specific environmental and social impact assessment performed at the detailed design stage is to identifies environmental and social aspects and hazards, assesses risks and establishes mitigation measures to control risks and set functional requirements for implementation of the present document.

Objectives of the site specific environmental and social impact assessment are to comply with provisions of the Loan Agreement and the Environmental and Social Commitment Plan and the Environmental Permit no. 1/4745 of December 31, 2019 issued by the Environmental Agency.

The present document shall be disclosed on the web sites of MEPIU, the Beneficiary S.E. Moldelectrica and the Taraclia District and the World Bank external website in order to have access to the environmental and social information all interested parties and community from the villages Albota de Sus, Albota de Jos, Balabanu, Novosiolovca, Aluatu, Salcia, Musaitu and Vinogradovca, the Taraclia District. The feed-back received from all interested parties shall the used to improve the Site Specific ESIA/ESMP and shall be included in the Public Consultation Report.

1.4 Approach and methodology of the ES impact assessment

1.4.1 General procedure

The scope of the environmental and social impact procedure (methodology) is to determine aspects that it can control and that it can influence and their associated environmental and social impact, considering the project life cycle. The procedure describes responsibilities, approach and methodology for environmental and social aspects and hazards identification, risks assessment and control risks specific for the project life cycle.

The risk assessment objectives are the following:

- To identify, evaluate and manage the environment and social risks and impacts of the project in a manner consistent with WB's OP 4.01 Environmental Assessment and applicable national ES laws;
- To adopt a mitigation hierarchy approach to: (a) Anticipate and avoid risks and impacts; (b) Where avoidance is not possible, minimize or reduce risks and impacts to acceptable levels; (c) Once risks and impacts have been minimized or reduced, mitigate; and (d) Where significant residual impacts remain, compensate for or offset them, where technically and financially feasible;
- To adopt differentiated measures so that adverse impacts do not fall disproportionately on the disadvantaged or vulnerable, and they are not disadvantaged in sharing development benefits and opportunities resulting from the project;
- To utilize national environmental and social institutions, systems, laws, regulations and procedures in the assessment, development and implementation of projects, whenever appropriate;
- To promote improved environmental and social performance, in ways which recognize and enhance Borrower capacity.

1.4.2 Environmental and Social Impact Assessment Approach specific for DD stage

1.4.2.1 General

The objectives of the environmental and social risks identification are to identify and categorize risks that could affect the project and to document these risks. The outcome of the risk's identification process is a list of risks mitigation measures that is comprehensive and nonoverlapping. The identified risks at the detailed design are the basis for estimating and managing project's mitigation measures. Any changes and improvements in the design also lead to new risks which shall be assessed and controlled. Risks which are part of ESMP shall be monitored, controlled and manage contingency throughout the design process.

Although risks were identified during the feasibility stage, risk identification during the design shall invite new risks as design develops.
The risk impact assessment procedure at the detailed design stage is the same as it was used at the feasibility stage and consists of risks identification, risks assessment and risks control by providing mitigation measures to protect the environment and social and respond to changing environmental

and social conditions in balance with socio-economic needs.
It specifies requirements that enable MEPIU/ME to achieve the intended outcomes it sets for its development of the ESIA/ESMP specific for the construction and operational stages and for the Contractor and the Beneficiary to implement the present document.

The flow chart of the risk assessment procedure is presented in the figure below.

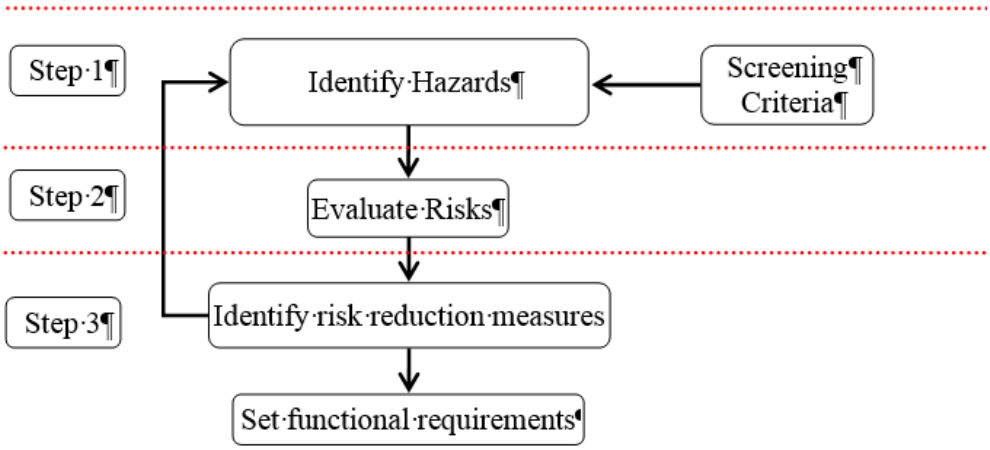


Figure 1-1: Risks assessment procedure/methodology

The environmental and social impact assessment approach specific for detailed design stage is determine the environmental and social aspects and establish requirements for controlling risks and setting functional requirements for contributing to sustainable development for construction and operation phase by:

- protecting the environment by preventing or mitigating adverse environmental impacts;
- mitigating the potential adverse effect of environmental conditions on the construction and operational stages;
- assisting the Contractor and the Beneficiary in the fulfilment of compliance obligations;
- enhancing environmental and social performances;
- controlling or influencing the way the Contractor's products and services are designed, manufactured, distributed, consumed and disposed by using a life cycle perspective that can prevent environmental impacts from being unintentionally shifted elsewhere within the life cycle;
- achieving financial and operational benefits that can result from implementing environmentally sound alternatives that strengthen the Beneficiary's market position;
- communicating environmental and social information to relevant stakeholders.

1.4.2.2 Screening criteria for risks assessment

1.4.2.2.1 The World Bank ES requirements

According to the World Bank's OP 4.01 Environmental Assessment and management of environmental and social risks and impacts, the Borrower will manage environmental and social

risks and impacts of the project throughout the project life cycle in a systematic manner, proportionate to the nature and scale of the project and the potential risks and impacts.

Borrower will conduct environmental and social assessment at the detailed design stage to help ensure that project is environmentally and socially sound and sustainable. The environmental and social assessment will be proportionate to the risks and impacts of the project. It will inform the design of the project, and be used to identify mitigation measures and actions and to improve decision making.

1.4.2.2.2 The applicable Republic of Moldova ES requirements

1.4.2.2.2.1 The applicable requirements for technical design

According to the Environmental Permit[1] issued by the Environmental Agency for this Project and the applicable legislation of the Republic of Moldova, in order to ensure the quality criteria for the designed facility, in the design documentation shall be included, the following essential requirements: **A** - strength and stability; **B** - operational safety; **C** - fire safety; **D** - hygiene, human health, restoration and protection of the environment; **E** - thermal insulation, water repellent and energy saving and **F** - protection against noise and **G** – sustainable use of natural resources.

The preparation of the design documentation is performed in case of holding the Urbanism Certificate for Design (UCD) issued by the Local Public Authority (LPA), based on the technical concept for design with initial data for design and the results of technical surveys, taking into account the solutions adopted in urban planning documentation.

The elaboration phases of the design documentation are established by the Contractor which is responsible for development of the detailed design, in the technical concept for design based on UCD, taking into consideration the category, importance, type and complexity of the object/facility.

The detailed design must, by its form and content, be in line with the valid standards and regulations in Moldova, in order to acquire necessary approvals, permits and licenses based on it.

The following documents have been received before starting the detailed design process issued by the State Supervision Agencies in order to be in compliance with applicable Republic of Moldova ES requirements:

- Urbanism certificate for design no. 03-17/720 of 20.08.2021 issued by the Chairman of the Taraclia District, in the conformity with requirements of the provision of the Law no. 163/2010 regarding the authorization of the construction works execution, by complying with Urbanistic General Plans of villages Albota de Sus, Albota de Jos, Balabanu, Novosiolovca, Aluatu, Salcia, Musaitu and Vinogradovca for development of the basic and detailed design,
- Sanitary Notice no. 24 of 16.03.2021 regarding endorsement of the 400 kV OHTL corridor Vulcanesti – Chisinau specific for Taraclia District,

[1] The Environmental Permit no. 1/4745 of December 31, 2019: https://moldelectrica.md/files/docs/md_ro_project/Acord_de_Mediu_BtB_LEA_400%20kV_Vulcanesti-Chisinau.pdf

- Notice no. 01-6-10-877 of 14.08.2020 issued by the Land Management Institute for Territory Organization and Land management (IPOT) for endorsement of the 400 kV OHTL corridor Vulcanesti – Chisinau,
- Archaeological Notice no. 19 of 09.07.2020 issued by the national Archaeological Agency for endorsement of the 400 kV OHTL corridor Vulcanesti – Chisinau,
- Notice no. 08/5-09/4934 of 11.09.2020 issued by the Ministry of Culture regarding endorsement of the 400 kV OHTL corridor Vulcanesti – Chisinau,
- Notice no. 10/2-805/21 of 12.94.2021, issued by the Technical Supervision Agency for endorsement of the 400 kV OHTL corridor Vulcanesti – Chisinau,
- Notice issued by the Mayoralty of the village Albota de Sus for endorsement of the 400 kV OHTL corridor Vulcanesti – Chisinau,
- Notice issued by the Mayoralty of the village Albota de Jos for endorsement of the 400 kV OHTL corridor Vulcanesti – Chisinau,
- Notice issued by the Mayoralty of the village Balabanu for endorsement of the 400 kV OHTL corridor Vulcanesti – Chisinau,
- Notice issued by the Mayoralty of the village Novosiolovca for endorsement of the 400 kV OHTL corridor Vulcanesti – Chisinau,
- Notice issued by the Mayoralty of the village Aluatu for endorsement of the 400 kV OHTL corridor Vulcanesti – Chisinau,
- Notice issued by the Mayoralty of the village Salcia for endorsement of the 400 kV OHTL corridor Vulcanesti – Chisinau,
- Notice issued by the Mayoralty of the village Musaitu for endorsement of the 400 kV OHTL corridor Vulcanesti – Chisinau,
- Notice issued by the Mayoralty of the village Vinogradovca for endorsement of the 400 kV OHTL corridor Vulcanesti – Chisinau,
- Technical conditions no. H-4/2153 of 19.10.2020, issued by S.E. "Calea Ferată din Moldova";
- Technical conditions no. 03/1-615 of 15.03.2020, issued by SA “Moldovagaz”;
- Technical conditions no. 910/0/2-22 of 14.07.2022, issued by SA “Moldtelecom”;
- Technical conditions no. 1 of 25.08.2022, issued by the Company “Moldcell”;
- Technical conditions no. 158 of 14.09.2022, issued by the Company “ARAX”;
- Technical conditions no. 505/113830 of 17.08.2022, issued by the Company “Premier Energy”;
- Method Statement no. TI-209/CIVL/CONC/MS-01 for Soil Investigation & Ground Resistance Checking, issued by the Contractor KEC,
- Method Statement no. TI-209/CIVL/CONC/MS Tower Grounding Installation & Measurement issued by the Contractor KEC,
- Method Statement no. TI-209/CIVL/CONC/MS-03 Foundation Works issued by the Contractor KEC,
- Method Statement no. TI-209/CIVL/CONC/MS-05 Tower Erection issued by the Contractor KEC,
- Plan & Profiles specific for Taraclia District developed by the contractor KEC
- Soil Investigation Report,
- Topographic Survey performed for OHTL corridor.

1.4.2.2.2 Risk assessment traceability from Feasibility and Pre-design stages

In 2015, EBRD hired an independent consultant to prepare the Feasibility Study[2] (FS) and the Environmental and Social Impact Assessment (ESIA)[3], the Environmental and Social Management Plan (ESMP)[4] and a Land Acquisition and Compensation Framework (LACF). The Project was classified as category "A" by EBRD and EIB and a full Environmental and Social Impact Assessment was performed. Since the financial arrangements among donors for the entire Project was agreed only in 2017, the developed ESIA&ESMP and other safeguards instruments, as well as the FS, cover all components of the asynchronous interconnection program that correspond to the requirements of both the EBRD/EIB/EU financed Project and the World Bank.

The Social and Environmental safeguard documents necessary for PSDP implementation activities were developed at the pre-design stage, within PSDP preparation ECAPDEV Grant No. TF0A6821. The safeguards documents include: Safeguards Summary Note on Environmental and Social Impact Assessment (ESIA); Environmental and Social Management Plan (ESMP) for SE Moldelectrica's new HQ building; Resettlement Policy Framework (RPF); Stakeholder Engagement Plan (SEP)[5]; Gender and Citizen Engagement Strategy and Institutional Assessment of Project Implementing Agencies.

The ESMP, developed at the FS/ESIA, summarizes specific requirements to avoid or mitigate potential environmental and social impacts required by the ESIA and the applicable standards. The ESMP is considered to be a "living" document that shall be updated at the detailed design stage by taking into consideration specific data from DD process, social aspects, avian risks, resettlement risks, OHS risks etc. and the Site Specific ESIA/ESMP (requirements) developed at the DD stage shall be used for construction, operation, and decommissioning of the project as needed to ensure compliance with the applicable standards by the Contractor and the Beneficiary (Operator).

The ESMP, developed at the SF phase, required that a number of more detailed E&S management plans and programs be prepared, including:

- Occupational Health and Safety Plan;
- Emergency Preparedness and Response Plan;
- Traffic Management Plan;
- Land Clearing, Erosion Control, and Site Restoration Plan;
- Land Acquisition and Compensation Plan;
- Chance Find Procedure;
- Air Quality Management Plan/Procedure;
- Noise & EMF Control Plan/Procedure;
- Waste and Materials Management Plan;
- Spill Prevention and Response Plan;
- Work Camp Management Plan (including accommodations plan if workers are to be accommodated);
- The Code of Conduct;

[2] Source: Feasibility Study - https://moldelectrica.md/ro/finances/connection_project
[3] Source: https://moldelectrica.md/files/docs/md_ro_project/ESIA_Annexes_Interconnection_Md_Ro_EN_July%202017.pdf
[4] Source: https://moldelectrica.md/files/docs/md_ro_project/ESIA_Annexes_Interconnection_Md_Ro_EN_July%202017.pdf
[5] Source: https://moldelectrica.md/files/docs/md_ro_project/SEP_Interconnection_Md_Ro_RU_24.07.2017.pdf

- Construction and Post-Construction Bird Monitoring Programs;
- Vegetation Management Plan.

These plans and programs are part of the FS/ESIA/ESMP, and shall be revised, improved and approved at the detailed design stage prior to construction.

MEPIU is be responsible for further risk assessment procedure by preparing ToRs and engaging individual consultants to prepare risk assessment reports. The Site Specific ESIA/ESMPs are subject to review (Non objections) by the World Bank and finally to be approved by MEPIU.

1.4.2.2.3 Site visits

The site visits to the sector of the 400 kV OHTL passing through the Taraclia District were performed to specifically identify those areas / sites that may be critical under environmental and social aspects. Here, the objective was to identify any sections or locations that may require an optimization of the pre-defined location to avoid or at least minimize any environmental and social conflicts or risks and to also minimize impacts on land ownership.

1.4.2.2.4 The Project Area of Influence

The Project Area of Influence (PAI) encompasses the geographical extent of the 400 kV OHTL 's potential impacts on the lives, livelihoods, health or well-being of external stakeholders and the natural environment specific for the Taraclia District, taking into account the following elements:

- the site's activities and facilities that are directly owned, operated or managed, including power transmission corridors, pipelines, access roads, construction camps, ports, etc.
- associated facilities, which are facilities that are funded separately by the company or a third party but whose viability and existence depend (almost) exclusively on the site and without which the site would not be viable.
- the impacts from planned and unplanned developments or activities that may occur in the future or at a different location. This could include developments led by the site (including contractors working on the site's behalf) to support ongoing operations (e.g. stay in business projects, developments etc.) as well as predictable developments that are not managed by the site e.g. expansion of a nearby town due to site-induced migration. It also includes cumulative impacts.
- the indirect impacts on biodiversity or on ecosystem services (i.e. the benefits humans gain from the natural environment and from properly functioning ecosystems), which local communities' livelihoods are dependent on; e.g. loss of fisheries owing to water contamination.
- the site's primary labour-sending and areas where income generated from site employment is spent; i.e. the towns and communities that are likely to experience economic benefits from the site.

The construction activity shall be taken place inside of the approved corridor of the 400 kV OHTL, the possible environmental impacts shall mainly relate to construction.

Direct area of influence is delineated as Biophysical environment (a 75 m wide on the 158 km long corridor centered on the project's alignment, as most of the direct biophysical impacts are expected to be felt in the immediate surroundings of the footprint area) and Socio-economic environment (the communities and their property crossed by the proposed ROW. Even if employment and economy stimulation may extend to other communities, direct socio-economic impacts are expected to be felt mostly by the villages and communities crossed, or near, the alignment). The socio-economic environment represents the affected districts/communes/villages as benefits and impacts from project-induced changes in the area of direct influence are likely to extend to other communities.

Fig. 1-2: Direct area of influence of OHTL

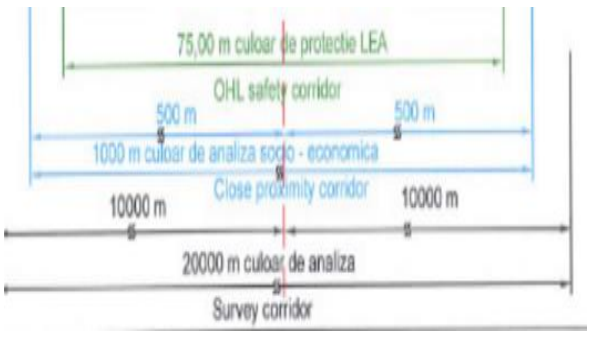


Fig. 1-3: Indirect area of influence of OHTL

Indirect influence is defined as Physical environment (10 km wide and 158 km long corridor, centered on the project's alignment, as most of the indirect physical impacts are expected to be felt in a corridor surrounding the new transmission line). The biological environment is the area of indirect influence includes areas where the natural environment shows a higher ecological integrity (e.g. hotspot biodiversity area) and anticipated to host species transitioning inside the project area.

For the OHTL safety corridor, the Contractor shall prepare profile plans with tower positions plotted thereon. Tower spotting shall be based on the ground profile drawings (terrain model based on geodetic survey) prepared by the Contractor and the design data and principles.
During preparation of detail design, the Contractor is responsible to submit complete information about preparation of tower polygon (areal) for each tower location.

1.4.2.3 Identification of potential impacts and mitigation measures

The identification of potential impacts of proposed Project on the environment and socio-economic condition was based on the existing information available related to the baseline condition, the technical characteristics of the investment and similar experience with other transmission line projects.

The impact assessment conducted on a case-by-case basis, depending on certain environmental and socio-economic aspects, was focus on specific condition that has to be respected in order to ensure the safety and integrity of the Project.

As a result of evaluation, the potential impacts of the Project on the physical, biological and socio-economic resources, mitigation measures were identified that the Project will take in order to avoid, minimise/reduce and mitigate adverse impacts and to enhance positive impacts where applicable.

Where relevant, the anticipated impact was compared with applicable environmental requirements and standards. The impact assessment methodology considered potential change on the physical, biological and socio-economic environment in relation with criteria set out according to their extent/scale, duration, intensity/magnitude and probability; the criteria used for impact assessment are presented in Table no.1-1.

Table no. 1-1: Matrix for evaluation of significance of potential impacts

Significance Criteria		
Extent/ Scale	On-site	Impacts limited to the boundaries of development site, namely: areas around the OHTL route
	Local	Impacts that affect areas nearby the boundaries of development site
	Regional	Impacts that affect important environmental resources at the regional scale, define by administrative boundaries, habitats/ecosystems types
	National	Impacts that affect important environmental resources or important areas at the national scale
Duration	Temporary	Impacts are predicted to be of short duration and intermittent / occasional
	Short-term	Impacts are predicted to be only during the construction period
	Long-term	Impacts are predicted to be only during the project lifetime
	Permanent	Impacts are predicted to cause a permanent change in the affected receptors or resources, beyond the project lifetime
Intensity/ Magnitude	Negligible	The impact on the environment is not detectable
	Low	Small detectable change to environment but with proper planning does not cause damage to the environment
	Moderate	Larger detectable change to environment that can be controlled by implementing the proper measures
	High	Fundamental change to the environment that altered the natural functions and processes
Probability	No probability	The impact should not occur during normal operation and conditions
	Average probability	The impact is likely to occur sometimes
	High probability	The impact is likely to occur during the project lifecycle
ES Components versus Project's stages		
Land acquisition	Pre-construction	Procedure relating to agreements with landowners
Displacement of populations		Resettlement process of assets and economic activities of PAPs
Site preparation	Construction	Land and technical survey
		Site preparation activities (deforestation, removal of topsoil, excavation, earthworks) for the construction of temporary and permanent components of the project (access roads, storage area, tower foundations)
Installation of work site		Settling of workers' camp and other temporary facilities and infrastructure used during construction (waste, water, energy, etc.)
Construction works		Construction of the power transmission line and substations
		Insurance of OHS aspects on construction sites

Transportation & circulation		Movement of road vehicles, trucks and construction equipment for labor movement and the supply or materials and equipment during construction, including fueling&maintenance of vehicles and machinery.
Purchase of materials /goods &services		Purchases required for the construction of the 400 kV OHTL
Operation of 400 kV OHTL	Operation	Presence and operation of equipment, and inspection and maintenance of conductor, towers and structure in substations
		Insurance of OHS aspects on site
Vegetation management		Vegetation clearance associated with the maintenance of the ROW
Wastes and hazardous materials management		Handling operations and storage pf hazardous wastes and used during the operation, including oil used in transformers in substations
Transportation & circulation		Employee transportation and movement of vehicles in the ROW, including the fueling and maintenance of vehicles.
Purchase of materials/goods and services		Purchases required for the operation of the 400 kV OHTL
Removal of installations	Decommissioning	Works related to the dismantling of facilities and activities associated with final restoration (decontamination sites, re-naturalization, etc.)
		Insurance of OHS aspects on site
Purchase of materials /goods &services		Purchases required for completion of the decommission work.

The significance of potential impacts, a function of extent, duration, intensity/magnitude of the impact and the probability of impact occurring, was categorized into the following significance categories:

- Negligible: no detectable change to the environment;
- Minor: the impact magnitude is sufficiently small and well within relevant environmental limits and standards;
- Moderate: the impact magnitude is within relevant environmental limits and standards;
- High: the regulatory limits and standards may be extended or large magnitude impacts occur to resources/receptors.

The mitigation measures proposed in case of probability of significant damage on the environment are consistent with requirements of relevant legislation and policies, as well as international practices.

For socio-economic environment where positive impacts may occur, in order to establish the significance of impact the same matrix was used; in case of intensity/magnitude the same scale was used for assessing the positive impacts, marked as positive, e.g. Negligible (positive).

For positive impacts the following significance categories were defined:

- Negligible (positive): positive changes affecting a few individuals;
- Minor (positive): positive benefits to a small section of the community;
- Moderate (positive): changes affecting a significant section of the community;
- High (positive): massive changes positively affecting majority of population.

1.5 Organization of the ES impact assessment report

The environmental and social impact assessment report includes:

a) The Basic Design which include the approved Plans and Profiles specific for the Taraclia District,
b) Detailed Design and report for checking and approval by the State Authority for DD approval;
c) The final ESIA/ESMP for the new 400 kV OHTL passing through the Taraclia District with public consultation report;
d) Public Consultation Report and minutes of consultation within the Stakeholder Engagement Plan updated at the detailed design stage;
e) Notices issued by the National Archaeological Agency and Archaeological discharge Certificates;
f) Implementation work plan developed by the Contractor and approved by MEPIU/ME;
g) Resettlement Action Plan developed by the Consultant for affected people in the Taraclia District and approved by MEPIU.

The Site Specific ESIA/ESMP contains 12 chapters and set out the aspects to keep the construction and operational processes under control. The Site Specific ESIA/ESMP shall be approved by the MEPIU and it shall become effective on the date of its approval.

The Site Specific ESIA/ESMP shall be published on the MEPIU and Moldelectrica, the Taraclia District' web pages and the World Bank external website and can be printed in a required number of copies at the request of stakeholders and distributed under signature to the designated recipients. The Site Specific ESIA/ESMP shall be held by stakeholders under conditions of integrity and legibility and shall be available for consultation to all stakeholders and workforce.
The Site Specific ESIA/ESMP may be furnished to the State Authorities, customers, etc. upon prior approval of the MEPIU/ME.

At the construction stage, the Contractor shall use the document to develop its own Contractor ESMP and OHS Plan and to evaluate compliance with requirements established in the Site Specific ESIA/ESMP.
At the operational stage, the Beneficiary Moldelectrica shall use the Site Specific ESIA/ESMP for compliance with applicable environmental and social laws of the Republic of Moldova and International Best Practices.

CHAPTER 2: POLICY AND REGULATORY FRAMEWORKS

2.1 Applicable Policy and Regulations of the Republic of Moldova

The Association Agreement between the European Union and the European Atomic Energy Community and their Member States and the Republic of Moldova was signed on June 27, 2014. The Agreement was ratified by the Parliament of the Republic of Moldova on July 2, 2014 and by the European Parliament on November 13, 2014.

Following the signature of the Agreement, the country committed to implement the relevant environmental legislation of the European Union into its national legal system by adopting or changing national legislation, regulations and procedures aiming at political association and economic integration with the EU. This Agreement includes binding provisions, regulatory norms and broader cooperation arrangements in all sectors of interest. Therefore, the EU directives have become directly relevant to all aspects of green city development and are discussed separately per sector and key issue. The achievement of commitments started with the adoption of the National Implementation Plan[6] of the EU-Moldova Association Agreement for 2014-2016.

The Republic of Moldova signed the EU accession application on March 3, 2022 and was approved by EU Council on June 23, 2022.

Synchronization of electrical networks

The electrical grids of Ukraine and the Republic of Moldova were successfully synchronized with the continental European grid on March 16, 2022 (ENTSO-E).

This follows the meeting of the Energy Council on 28 February 2022, where ministers expressed their support for the rapid connection to the Ukrainian electricity grid and called for the continuation of work at all levels.

2.2 Environmental Acts/Codes/Regulations

The key policy document within the healthcare sector regulation is the **National Public Health Strategy for 2014-2020**[7] which is based on various international and national documents. The Framework Policy of the World Health Organization "Health 2020". with the purpose of supporting the interactions of the Government and the society in order to significantly improve the health and well-being of the population, reduction of inequalities in the field of health, consolidation of public health. As a priority, the Strategy will pursue the implementation of the Post-2014 Action Program of the International Conference on Population and Development and the post-2015 Agenda for Sustainable Development.

[6] DG no. 808/2014: https://www.legis.md/cautare/getResults?doc_id=88616&lang=ro#
[7] HG no. 1032/2013: https://www.legis.md/cautare/getResults?doc_id=103096&lang=ro

"Greening" of economy and promotion of the sustainable procurements is reflected under the **approving the Program for the promotion of the "green" economy in the Republic of Moldova for the years 2018-2020**[8]. Among the specific objectives of the Programme is ensuring, by 2020, that **at least 15%** of all public procurement will meet sustainable procurement criteria. The Programme sets measures to achieve the objective: update the procurement instructions, considering the lessons learned in the pilot auctions; elaborate a monitoring and evaluation system regarding the implementation of the contracts concluded following the development of sustainable public procurement.

National Environmental Strategy for 2014-2023[9] is the main document of long-term strategic planning which establishes the strategic framework on the environment protection, including protection of human health and the environment from adverse effects caused by pollutants.

National Waste Management Strategy 2013-2027[10] establishes the strategic vision of waste management until 2027 as an integrated system, economically efficient and ensuring protection of human health and environment. Inter alia, the Strategy aims to promote separate waste collection and treatment for each type of waste, particularly toxic and hazardous waste. The strategy provides general information regarding with construction and demolishing waste and conditions of its management.

Development Strategy with reduced emissions of the Republic of Moldova until 2030[11] is a strategic document that allows the Republic of Moldova to orient towards a low carbon economy and to achieve the targets mentioned the document "Intentional determined national contribution" through green sustainable development, based on the socio-economic priorities of the country's development.
Also, this Strategy supports the achievement of sustainable development objectives, providing a national strategic context to the mitigation efforts for which the country receives international support. The specific objective 1 of the Strategy is to reduce, until 2030, the GHG emissions from the energy sector by 74% (unconditional) and up to 82% (conditioned) compared to 1990 level.

National Strategy on Energy Efficiency until 2030[12] is the key policy documents that look at measures that country will take regarding these future CO_2 emission limits. It is expected, that in the next decade, 2021-2030, carbon capture and storage technology will have to prove economically viable in order to be allowed to actively enter the market, thus substantially altering the structure, values, prices and costs, of fuel for the latest technologies. Between 2021-2030, smart grid technologies and equipment will clearly prove to be economically viable and will become a de facto standard for the electricity industry. This type of structuring of the energy system will greatly change the existing approaches of the topologies, balancing, measurement, monitoring and energy mix of the system. All these changes will act in favor of the assimilation of increasing quotas of electricity from renewable sources.

[8] GD no. 160/2018: https://www.legis.md/cautare/getResults?doc_id=102127&lang=ro
[9] GD no. 301/2014: https://www.legis.md/cautare/getResults?doc_id=114539&lang=ro#
[10] GD no 248/2013: https://www.legis.md/cautare/getResults?doc_id=114412&lang=ro#
[11] GD no. 1470/2016: https://www.legis.md/cautare/getResults?doc_id=129232&lang=ro#
[12] GD no. 102/2013: https://www.legis.md/cautare/getResults?doc_id=68103&lang=ro#

Under the social and equal opportunities agenda, the Government developed the **National Strategy on Gender Equality 2017-2021[13] and a Strategy on Violence Against Women and in family 2018-2023[14]**. The aim is to response to gender-based violence through improving quality of services for survivors and prevention of the violence.

In mean time, Government approved a **National Youth Development Strategy 2020 and a Youth Gap Index** tool for mainstreaming youth priorities, although there remain gaps in data and weaknesses in monitoring youth policies.

Draft strategies:
The national development strategy "European Moldova 2030[15]", the document that indicates the country's development directions in the next seven years, was approved in October, 2022 by the Parliament in the first reading,

The project, presented to the deputies represents a long-term strategic vision, which adapts to the national context the priorities of the international commitments assumed by our country according to the Association Agreement and those deriving from the status of a candidate country for accession to the European Union.

The development objectives contained in the strategy reflect the aspirations of increasing the well-being of the people of the Republic of Moldova, improving the lives of citizens, Europeanizing state institutions, strengthening democracy, the rule of law and respect for human rights.

The document establishes ten general objectives, used to measure the quality of life at the level of the European Union. These are: increasing income from sustainable sources and mitigating inequalities; improving living conditions; guaranteeing relevant and quality education throughout life; raising the level of culture; improving the physical and mental health of the population; solid and inclusive social protection system; efficient, inclusive and transparent governance; fair, incorruptible and independent judiciary; peaceful and secure society; healthy environment. The project aims to achieve concrete indicators by 2030, for example – reducing absolute poverty by at least 50%. If GDP growth will be higher than the planned annual level of 5% until 2030, respectively.

The strategy will be the reference document in the process of developing the medium-term budgetary framework and defines, including, the strengthening of the resilience of the Republic of Moldova in the event of new crises. The document will also guide the assistance of development partners in relation to national development priorities and ensure better coordination of assistance projects.

2.3 Environmental assessment vetting process

The environmental vetting process is a procedure for verification and checking of the package consisting of the Basic Design and Detailed Design Reports, Stakeholders Engagement Plan

[13] GD no. 259/2017: https://www.legis.md/cautare/getResults?doc_id=99875&lang=ro
[14] GD no. 281/2018: https://www.legis.md/cautare/getResults?doc_id=101802&lang=ro
[15] Law no. 315/2022 for the approval of the National Development Strategy "European Moldova 2030" (published in OM no. 409-410/2022)

revised at the detailed design stage and the Site Specific ESIA/ESMP for the construction of the new 400 kV OHTL by the World Bank and the State Authorities of the Republic of Moldova.

According to the World Bank requirements, the draft Site Specific ESIA/ESMPs are subject to review (Non objections) by the World Bank and public consultation shall be organized and the interested public shall have access to the environmental and social information. Feed-back from stakeholders and other interested parties shall be documented and complaints, proposals and comments, complaints and additional mitigation measures for document improvements shall be taken into consideration for document review and improve. Finally, the draft Site Specific ESIA/ESMP shall be submitted to the World Bank for review and issuing non-Objection.

The State Authority shall verify and check the detailed design package including also the Site Specific ESIA/ESMP. The Beneficiary shall submit to the Local Public Authority the following documents for receiving the Construction Authorization/Permit:

- The Urbanism Certificate for Design issued by the Local Public Authority with the Environmental Permits no. 1/4745/2019, Notice from the National Agency for Public Health and the Notice issued by the Technical Supervision Agency;
- The Basic Design and the Detailed Design developed by the Contractor;
- The Report for the verification of project documentation for construction;
- The Certificate for the company registration;
- The Contract of the author supervision signed by the Beneficiary and designer;
- Notice issued by the Ministry of Culture for protected monuments;
- Archaeological Certificates issued by the national Archaeological Agency;
- The Law no. 120/2022 on the declaration of public utility and national interest of the 400 kV OHTL,
- Resettlement Action Plan specific for affected villages (PAPs) in the Taraclia District.

The Local Public Authority shall issue the Construction Authorization within 30 days for the construction of the new 400 kV OHTL.

2.4 Other important social and environment regulations

The Republic of Moldova is characterized by a new legislative base, that most of it was harmonized with EU Acquis Communautaire according to Association Agreement and ensure that the information provided in the table below, regarding the main applicable national legal environmental and social acts relevant to the Project, is consistent with the Taraclia District's ESIA. Some of the main laws related to the project proposal and activities that will be implemented are presented in the Table below.

Table 2-1: Main national legal environmental and social acts relevant to the Project

Legal act	General overview	Relevancy with the Project
Applicable Environmental Laws		
Law on the Environmental Protection #1515 of June 16, 1993	Establishes the basic legal framework for drafting special normative acts and instructions issues of environmental protection	Provides basic rules regarding air quality conditions, rights and duties of each actor with activities with potential

Legal act	General overview	Relevancy with the Project
		impact to environment, - to be used while conducting ESA for project activities
Law on Environmental Impact Assessment #86 of May 29, 2014	Establishes the goal of preparing documentation on the Environmental Impact Assessment (EIA), its procedure, coordination and approval, and includes the List of objects and types of activities for which an EIA is compulsory prior to their design	This law is not relevant for proposed activities under the Component 1 and Component 2 as the proposed activities are not listed in the Annex 1 of this law
Law on Green Spaces of the Urban and Rural Localities #591 of 1999	Regulates relations in the field of development and protection of green spaces in urban and rural localities in order to ensure the right of everyone to a healthy and aesthetic environment	Regulates the identification and delineation of the green areas within the settlements' areas
The Water Law #272 of Dec 23, 2012	Establishes the legal framework necessary for the water management, protection and use	It is relevant as it specifies the procedures for obtaining water authorizations
Land Code #828-XII of Dec 25, 1991	Establishes the relations and rights of land ownership and the basic requirements of land use and protection	It is or establishing the procedures, duties and obligations under administration of the land
Law on State Supervision of Public Health #10-XVI of February 03, 2009	This law regulates the organization of the state supervision of public health, establishing general requirements to public health, the rights and obligations of physical persons and legal entities, procedure for the organization of system of the state supervision of public health. The Purpose of this law is providing optimum conditions for the maximum realization of potential of health of everyone throughout all life by means of organized efforts of society on the prevention of diseases, protection and promotion of health of the population, improvement of quality of life	It is relevant for the project and its stipulations need to be reflected in the ESA documents
Law on Quality in Construction #721 of February 02, 1996	The provisions of this law are applied to construction and related facilities, hereinafter referred to as the building industry, in the design, construction and building, as well as in the stages of exploitation and interventions to existing buildings and post-utilization them, regardless of their form of ownership, destination, category and class or source of funding, in order to protect people's lives their goods, society and the environment	The law provisions are relevant to proposed activities and should be reflected ESA documents for all proposed civil work
Law on authorization of the executing the construction works #163 of July 09, 2010	The purpose of this law is to legalize the way of authorizing, approving and verifying the design work, execution or demolition of the buildings and approximate area according to urbanism planning and spatial planning documentation, by applying the system of normative documents in construction and in order to ensure transparency and visibility when issuing administrative acts and creating favourable conditions for the business environment. The provisions of the law are mandatory for authorizing the execution of constructions of any kind, category, destination and type of property, except for objects of a military or secret character, which are specifically authorized	Similarly – this law is relevant, and its requirements are applied for all civil works
Law on access to information #982 of May 11, 2000	This law shall govern the rights of access to information of public importance held by public authorities, with a view to	This is relevant for ensuring disseminating information about implementation of the

Legal act	General overview	Relevancy with the Project
	exercising and protecting the public interest to know and attaining a free democratic order and an open society	project and about potential ES impacts
Law on Wastes #209 of July 29, 2016	The law sees that waste management methods will not endanger the environment, peoples' health and other living organisms. Authorities in charge are authorizing waste collecting, transportation, exploitation and disposal activities, avoiding water, soil, flora, fauna, phonic and air pollution. New methods must not endanger landscapes or protected areas	This is relevant for ensuring the waste management at the level of each institution for the solid waste management, including hazardous ones (in particular, asbestos)
Law on Air Protection #1422 of Dec 17, 1997	The law has the objective to maintaining the air quality and improving the air quality - component of the environment, preventing and reducing the adverse effects of physical, chemical, biological, radioactive and other factors on the atmosphere, with adverse consequences for the population and/or the environment, and regulates the activity of individuals and legal entities, irrespective of type of ownership and legal form of organization, when he/she directly or indirectly affects or may affect the air quality.	The law is relevant and requires measures for ensuring the air quality for the activities related to energy sector as well as to small civil work and also for ensuring the legal requirements for noise during small civil works
Law on occupational safety and health #186 of July 10, 2008	The present Law (1) regulates the legal reports regarding the establishment of measures regarding the safety and health of the workers in the workplace; (2) establishes the general principles regarding the prevention of occupational risks, the protection of workers at workplace, the elimination of risk and accident factors, the information, the consultation, the balanced participation, the training of the workers and their representatives.	The law is relevant and is mandatory to be followed in the case of both Components activities, ensuring OHS issues.
Law on the protection of archaeological heritage No. 218 of 17.09 2010	This law regulates the general legal regime of archaeological discoveries and research, as well as the protection of archaeological heritage, a component part of the national cultural heritage.	Relevant at the request of the urban planning certificate for design in accordance with the Law relating to the authorization of executing the construction works No, 163/2010, in the case of construction works involving interference with the ground, regardless of the type of work contemplated, and the form of the ownership of the land.
Applicable Social Laws		
Law on Social Inclusion of Persons with Disabilities #60 of Mar 30, 2012	The law regulates the rights of persons with disabilities for their social inclusion, guaranteeing the possibility of their participation in all areas of life without discrimination, at a level identical to the other members of the society, having as a basis the respect of fundamental human rights and freedoms	The law is relevant and requires measures for ensuring the participation of person from socially vulnerable groups in the project activities, to promote and defend their interests
Law regarding the promotion of employment and unemployment insurance #105 of Jun 14, 2018	The purpose of the law is to prevent and reduce unemployment and its social effects, reduce the risk of unemployment and ensure a high level of employment and adapting to the demands of the labor market	The law is important to ensure the rights of employees

Legal act	General overview	Relevancy with the Project
Law on Social Services #123 of Jun 18, 2010	The law establishes the general framework for the creation and functioning of the integrated system of social services, with the determination of the tasks and responsibilities of the central and local public administration authorities, of other legal and natural persons empowered to provide and provide social services, as well as the protection of the rights of the beneficiaries of social services;	The provisions of the law are important for ensuring the quality of public services and respecting the interests of consumers
Law on ensuring equal opportunities between women and men # 5 of Feb 09, 2006	The purpose of the Law is to ensure the exercise of their equal rights by women and men in the political, economic, social, cultural, other spheres of life, rights guaranteed by the Constitution of the RM, in order to prevent and eliminate all forms of discrimination according to the criteria of sex. The Law also introduces the notion of affirmative actions	The provisions of the law are important for promoting women's interests in exercising their rights in labor relations
Law on Access to Information # 982/2000, as amended in 2003-2011-2015	The law regulates the interaction between the providers of information and individuals and/or legal entities during the exercise of their constitutional right to access information, the rights of applicants for obtaining the information, the obligations of information providers to ensure access to official information, methods of safeguarding the right to information	This is relevant for ensuring disseminating information about implementation of the project and about potential ES impacts
Law on Freedom of Expression # 64/2010, as amended in 2012-2013-2015	This Law guarantees right to freedom of expression and regulates the balance between right to freedom of expression and defense of private and family life	This is relevant for ensuring disseminating information about implementation of the project and about potential ES impacts
Law on Transparency in Decision Making # 239/2008	The law refers to the transparency of information linked with the decision-making process and to the consultation of stakeholders when drafting decisions	This is relevant for ensuring disseminating information about implementation of the project and about potential ES impacts
Administrative Code of Republic of Moldova # 116/2018	The Code establishes procedure for consideration of petitions of the RM citizens addressed to the relevant authorities/bodies (further - "bodies") for the purpose of ensuring protection of petitioners' rights and legitimate interests	This is relevant for ensuring for the early collection of information regarding the risks of non-compliance with ES standards

2.5 International Treaties related to environment and social standards

The design of the equipment shall fundamentally consider the most severe conditions to which they will be subjected during manufacture, transport and handling, installation, testing and operation.

The dimensions of the parts which are exposed to repetitive and alternating stresses as well as to impacts and vibrations shall take into account the safety measures approved in practice.

The standards for the design of the 400 kV OHTL shall be:

- Standards and regulations from Moldova;
- PUE Standard (ПУЭ 7 Правила устройства электроустановок);
- EN 50341-1: 2012 Overhead electrical lines exceeding AC 1 kV – Part 1: General Requirements – Common specifications (English version);
- IEC standards;
- CIGRE Publication no. 196:''Diaphragms for Lattice Steel Towers";

- CIGRE Publication no. 348:''Tower Top geometry and mid-span clearances'';
- CIGRE Publication no. 273: "Overhead conductor safe design tension with respect to Aeolian vibrations";
- IEEE Standards,
- ASCE 10 Design of Latticed Steel Transmission Structures, or other equivalent international standards as approved by the Employer.

In regards of environmental and social protection, national government and funding agencies regulations shall be applicable.

Except if otherwise specified, where such standards are mentioned, the latest revision or edition on the Base Date shall apply.

When the Contract Documents contain particular specification or more restrictive specification than required in Standards and Codes listed above, the Contract Documents will always prevail.

Where requirements are specified by reference to a standard which has its origin in one country, it is not the intention to restrict the requirements solely to that standard and that country. The Contractor may propose to the Employer an equivalent standard other than that specified, in which case he shall submit the proposed standard and shall submit written proof that his proposed standard is equivalent in all significant respects to the standard specified. All submissions shall be made in English language.

Specific for environment and social requirements, the Contractor shall abide by the requirements of the MEPIU's (Employer) Environmental and Social Management Plan (ESMP) developed by MEPIU in parallel with the detailed design process.

2.6 World Bank Operational Policies

The WB's environmental and social safeguard policies and WBG EHS Guidelines[16] relevant to the project including both Operational Policies (OP) and Bank Procedures (BP). Safeguard policies are designed to protect environment and society against potential negative effects of projects, plans, programs and policies.

The WB requires environmental assessment of projects proposed for Bank financing to help ensure that they are environmentally sound and sustainable, and thus to improve decision making.

The environmental assessment is a process whose breadth, depth, and type of analysis depend on the nature, scale, and potential environmental impact of the proposed project. The environmental assessment evaluates a project's potential environmental risks and impacts in its area of influence; examines project alternatives; identifies ways of improving project selection, siting, planning, design, and implementation by preventing, minimizing, mitigating, or compensating for adverse environmental impacts and enhancing positive impacts; and includes the process of mitigating and managing adverse environmental impacts throughout project implementation for electric power transmission and distribution[17].

[16] WBG EHS Guidelines: https://www.ifc.org/content/dam/ifc/doc/2000/2007-general-ehs-guidelines-en.pdf
[17] Electric power transmission and distribution: https://www.ifc.org/content/dam/ifc/doc/2000/2007-electric-transmission-distribution-ehs-guidelines-en.pdf

For the construction of the 400 kV OHTL the following policies shall be applied:

- OP 4.01: Environmental Assessment;
- OP 4.04: Natural Habitats;
- OP 4.36: Forests;
- OP 4.11: Physical Cultural Resources;
- OP 4.12: Involuntary Resettlement.

Description of Project's WB safeguards triggered:

OP 4.01 ENVIRONMENTAL ASSESSMENT

The purpose of OP 4.01 is to ensure that projects funded by the WB are environmentally feasible and viable and that the decision making is improved through appropriate analysis of actions and their probable environmental impacts (OP 4.01, par. 1).
This policy is triggered if a project is likely to have potential (negative) environmental risks and impacts in its zone of influence.

OP 4.01 covers:

- impacts on the physical environment (air, water and land);
- life environment, health and safety of populations;
- cultural and physical resources;
- environmental concerns at the transboundary and world levels.

Social aspects (involuntary resettlement, indigenous populations) as well as natural habitats, pest control, forestry and safety of dams are addressed by separate policies with their own requirements and procedures.

The WB undertakes environmental screening to determine the appropriate extent and type of environmental assessment to be conducted. It classifies the proposed projects into categories, depending on the type, location, sensitivity, scale of the projects and the nature and magnitude of their potential environmental impacts.

This project has been classified as a category A project. When considered as category A, projects have potential adverse environmental impacts that could be significant on human populations or on environmentally important areas. These impacts may affect an area broader than the sites or facilities subject to physical works. The environmental assessment will examine the project's potential negative and positive environmental impacts and recommend any measures needed to prevent, minimize, mitigate, or compensate any adverse impacts and improve its environmental performance.

For all Category A or B projects, project-affected groups and local NGOs have to be consulted on the project's environmental aspects and their views must be taken into account during the environmental assessment process. The consultations must be initiated as early as possible. These groups should be consulted shortly after the environmental screening, before the terms of reference for the EIA are finalized and also once a draft EIS report is prepared. Consultations can also be conducted throughout the project's implementation to address related issues that affect the PAPs.
For meaningful consultations, all relevant material must be provided in a timely manner prior to

consultations, in a form and language that are understandable and accessible to the groups being consulted.

OP 4.04 NATURAL HABITATS

The 4.04 conservation policy's purposes are to protect natural habitats and their biodiversity and to ensure the sustainability of services and products that natural habitats supply to human societies. In principle, the WB will refuse to finance project's that may be perceived as causing significant damages in Critical Natural Habitats (CNHs).

Its objective is to circumvent the conversion or degradation of non-critical natural habitats, as much as possible. These impacts should be avoided by reconfiguring the project, even in its size or its extension, and/or by implementing acceptable mitigation measures, such as the establishment of protected areas or the strengthening of effective protection of CNHs. Should the project involve the significant conversion or degradation of natural habitats that are not considered as critical, and if there are no alternative solutions for the project and its location, and if the complete analysis clearly shows that the project's overall benefits are significantly higher than the environmental costs, then the WB can finance the project if the project includes appropriate mitigation measures.
The WB defines natural habitats as land or water zones where biological communities sheltered by ecosystems are in majority made of indigenous plant and animal species, and where human activity has not fundamentally modified its zone's main ecological functions.
CNHs are defined as:

- existing protected areas and areas officially proposed by governments to be classified amongst' 'protected areas' e.g. reserves that meet the criteria of the International Union for Conservation of Nature (IUCN) classifications;
- areas recognized as protected by traditional local communities;
- sites maintaining vital conditions for the viability of such protected areas.

OP 4.36 FORESTS
The OP 4.36 is about forest protection. The major objectives of the policy are (i) sustainable management of forests, (ii) conservation of wet forest zones and (iii) communities' rights respected in their traditional use of forest zones in a sustainable manner.

The WB does not finance projects that would involve significant conversion or degradation of critical sections of forests or essential (critical) natural habitats attached to them.
Should the project involve the significant conversion or degradation of natural forests or associated natural habitats that are not considered as critical, and if there are no alternative solutions for the project and its location, and if the complete analysis clearly shows that the project's overall benefits are significantly higher than the environmental costs, then the WB can finance the project on condition that it includes appropriate mitigation measures. OP 4.36 is triggered by the project as some forest habitats are located along the projected transmission line route.

OP/BP 4.11 PHYSICAL CULTURAL RESOURCES (PCR)
This policy assists in preserving physical cultural resources (PCRs) and helps reduce chances of their destruction and/or damage. The policy considers PCRs to be resources of archaeological,

paleontological, historical, architectural, religious (including graveyards and burial sites), aesthetic or other cultural significance.

According to this policy, an investigation and inventory of PCRs likely to be affected by the project have to be conducted. The investigation should document the significance of such PCRs, and assess the nature and extent of potential impacts on them. Since many cultural resources are generally not well documented or protected by law, public consultations are an important mean of identifying PCRs.
Such consultations include meetings with project-affected groups, relevant government and non-governmental organizations.
If PCRs are found during an inventory, a management plan must be prepared. This management plan must include measures to avoid or mitigate any adverse impacts on PCRs, provisions for managing chance findings, any necessary measures for strengthening institutional capacity for the management of PCRs and monitoring systems to track the progress of these activities.
Finally, whether or not a PCR is found at the inventory phase, provisions for managing chance finds must be implemented to ensure that PCRs that may be discovered be properly handled.

OP. 4.12 INVOLUNTARY RESETTLEMENT
The main objectives of the WB Resettlement Policy (OP 4.12) are to:

- avoid or minimize involuntary resettlement, whenever feasible;
- develop resettlement activities as sustainable development programs, providing sufficient investment resources to enable the displaced persons' share in project benefits;
- meaningfully consult displaced persons and give them opportunities to participate in the planning and implementation of the resettlement programs;
- assist displaced persons in their efforts to improve their livelihoods and standards of living or at least to restore them, in real terms, to pre-displacement levels or to levels prevailing prior to the beginning of the project's implementation, whichever is higher.

This policy is usually applied for projects that require international financing. Annex A (Paragraphs 17-31), describes the scope (level of detail) and the elements that a resettlement plan should include. These include objectives, potential impacts, socioeconomic studies, legal and institutional framework, eligibility, valuation and compensation of losses, resettlement measures, relocation planning, community participation, grievance management procedures, implementation schedule, costs and budgets, and monitoring and evaluation.

WB OP 4.12.(6a) requires that the resettlement plan include measures to ensure that displaced persons are (i) informed about their options and rights, (ii) consulted and offered choices among technically and economically feasible resettlement alternatives, and (iii) provided prompt and effective compensation of full resettlement costs.

WB OP 4.12 (8) requires that particular attention should be places to the needs of vulnerable groups among those displaced such as: those below the poverty line, landless, elderly, women and children, indigenous populations and ethnic minorities.

WB OP 4.12 (13a) stipulates that any displaced persons and their communities and any host communities receiving them should be provided with timely and relevant information. They also implementing and monitoring of the resettlement.

WB OP 4.12 (12a) states that payment of cash compensation for lost assets may be appropriate where livelihoods are land-based but only when the land taken for the project is a small fraction (less than 20%) of the affected asset and the residual is economically viable.

WB OP 4.12 (6b&c) state that in case of physical relocation, displaced persons should be (i) provided assistance (such as moving allowances) during relocation; and (ii) provided with residential housing, or housing sites, and, if required, agricultural sites for which a combination of productive potential, locational advantages, and other factors is at least equivalent to the advantages of the old site.
In addition, displaced persons should be offered support after displacement, for a transition period, based on a reasonable estimate of the time likely to be needed to restore their livelihood and standards of living. This development assistance comes in addition to compensation measures such as land preparation, credit facilities, training, or job opportunities.

WB OP 4.12 (13a) requires that appropriate and accessible grievance mechanisms be established to sort out any issues arising.

Table 2-2: Gap analyses WB vs national legislation

WB OPs	Main Gaps in National legislation	Measures to be carried out to bridge gaps
OP 4.01: Environmental Assessment	Clear mechanism on defining the environmental protection zones for certain industry/activity is not available. Decisions to conduct or not an EIA, made by Environmental Agency based on Annex 2 of Law on EIA (no. 86) requires clarifications because may be interpreted.	All identified gaps by the Consultant ISPE were included in the Law no. 120/2021. The Consultant ISPE is a JV composed by electrical engineers and other technical specialists. Starting from October 2023, the new amended Law no. 86/2014 for EIA will transpose totally Directive 2011/92/EU regarding the assessment of the effects of certain public and private projects on the environment. Old Law 86/2014 transposed partially Directive 2011/92/EU
OP 4.04: Natural Habitats	It is not available a clear mechanism that can be defined by the local authority of a territory as a natural habitat without mentioning this at the national level. The Law Regarding the fund of natural areas protected by the state Article 15 mentions that LPA may declare certain natural	The mechanism is defined in the Law no. 120/2021 on declaration of construction works for 400 kV OHTL Vulcanesti – Chisinau as public utility of national interest. Fund of natural areas are also included in the Law no. 120/2021. The law established role and responsibilities of State Agencies for land management, forest, archaeologic heritages, etc. and

WB OPs	Main Gaps in National legislation	Measures to be carried out to bridge gaps
	spaces in the territory as protected natural areas, which are to be included in the urban planning and planning documentation. Most localities do not have yet the urban planning documentation.	other interested parties for management of the natural areas to be included in the planning documentation (for example Urbanism Certificate for Design, Construction Authorization) The Law no. 120/2021 also stipulates situation were localities do not have urban planning documentation and established roles and responsibilities of the Public Service Agency/Cadastral Agency after declaring the public utility. Public Services Agency, within 60 days, will carry out work on the definitive systematization of the organization projects a of the territory in the localities affected by the construction of the 400 kV OHTL Vulcănești–Chișinău, and SE "The Land Management Institute (IPOT)" will develop the project for the organization of the territory for Novosiolovca village from Taraclia district which do not have planning documentations.
OP 4.36: Forests	The national legislation clearly defines the requirements.	Additionally, the law 120/2021 stipulate roles and responsibilities of the State Enterprise “Moldsilva” for better management of the forest funds.
OP 4.11: Physical Cultural Resources	The national legislation clearly defines the requirements. Even that, archaeological discharge certificate may request additional studies and financial resources.	This activity is financed by Government of Moldova contribution and MEPIU manages this aspect by signing contract with the National Archaeological Agency as being designated by GoM for management of archaeological heritage.
OP 4.12: Involuntary Resettlement	The main Gap is that according to national legislation unauthorized, illegal buildings, and use without permission of the owner of agricultural lands are not eligible for compensation.	According to the Feasibility Study/ESIA/ESMP, the Consultant ISPE the consultant selected the OHTL corridor in such a way as to avoid physical resettlement. The Law no. 120/2021 stipulates that compensation shall be paid for agricultural expropriation process and not for physical. In case OHTL cross unauthorized illegal buildings, designer shall shift the OHTL corridor to comply with Law no. 120/2021.

2.7 Provision of the Regulation regarding the protection of electrical network

In order to ensure integrity, normal operation conditions and prevention of accidents, the provisions of GD no. 514/2002 for approval the Regulation regarding the protection of electrical network and World Bank electric power transmission and distribution requirements[18] shall be respected.

The following main provisions are relevant for the proposed investment:

[18] WB’s Electric power transmission and distribution requirements: https://www.ifc.org/content/dam/ifc/doc/2000/2007-electric-transmission-distribution-ehs-guidelines-en.pdf

- For OHTLs construction and operation, the land will be assigned according to the legislation;
- Safety zones within certain distances from the outer conductors shall be established; for 400 kV OHTL, the safety zone is defined as a distance of 30 m from outer conductors, resulting a total OHTL safety corridor of 75 m;
- Minimum acceptable distances between OHTLs and buildings, constructions, land and water areas shall be established;
- Delimitation of corridor clear of trees in massive woodlands and plantations shall be defined.

The land within the OHTL safety corridor, not taken from land owners, will be used for agricultural works and other works, in strict compliance with GD no. 514/2002.

The planned works for repairing, technical maintenance and reconstruction of OHTLs crossing agricultural land will be performed with the consent of the land owners and, usually, in period when the land are free of crops or the integrity of agricultural cultures is ensured. Owners of the land crossed by the OHTLs and within the safety corridors shall be compensated for damage to crops.

In the protection zones of electrical networks, it is forbidden to carry out, without the written consent of S.E. Moldelectrica, any actions that may lead to disruption of the normal operation of electrical networks, to their damage or to accidents, namely:

a) carrying out constructions, capital repairs, reconstructions or demolition of buildings and constructions;
b) execution of any mining, loading-unloading, dredging, dynamiting and improvement works, planting and cutting trees and shrubs, installing dams, trellises for vineyards and orchards;
c) the passage of cars and mechanisms, with or without load, having a height of more than 4.5 m from the road surface;
d) planting green areas with perennial plantations;
e) location of car fueling stations and other fuel and lubricant stores;
f) throwing, supporting or tying foreign objects to electric poles or conductors, climbing poles, blocking access to them, throwing snow from roofs onto conductors;
g) the formation of various garbage accumulation sites;
h) storing fodder, fertilizers, straw, wood and other materials, lighting the fire;
i) arranging sports fields, stadiums, fairs, stations for public transport, parking lots for all types of machines and mechanisms, organizing various events involving a large number of people, who are not employed in the execution of authorized works in the established manner;
j) launching kites, sports models of flying machines, including guided ones;
k) the stationing of all means of transport, with the exception of railway transport (the OHTL protection zones with voltages over 330 kV);
l) arrangement of field cantonments and barns;
m) the demolition or reconstruction of buildings, bridges, tunnels, railways, roads and other constructions in the places where the overhead power lines are crossed or where the entrance units and distribution facilities are located without the prior exchange of these lines and facilities on behalf of the construction's beneficiaries, in agreement with SE Moldelectrica;
n) theft of materials, devices, equipment and elements of electrical networks;
o) the use of mobile suppression installations (in the protection zones of 6-750 kV electricity transmission lines);

p) finding foreign persons on the territory or in the premises of electrical network constructions, opening doors and windows of electrical network installations, switching and connecting electrical networks;
q) liquidation or blocking of access paths to the objectives of the electrical networks;
r) shooting birds on the OHTL poles or conductors;
s) fishing and catching other aquatic creatures, extracting aquatic plants with underwater tools, organizing watering fords, breaking and collecting ice in the protection zones of underwater power lines;
t) carrying out earthworks in the underground the cable electrical cable appropriation at a depth of over 0.3 m, and on plowed lands - at a depth of 0.45 m, leveling the soil with bulldozers and excavators;
u) execution of works with percussion mechanisms, throwing weights of more than 5 tons, evacuation of caustic and corrosive substances, as well as fuels and lubricants;
v) dropping the anchor, passing with anchors, chains, probes, nets and trawls thrown in the areas of protection of underwater cable lines with electricity transport.

Along the OHTL that crosses the wooded massifs and green areas, strips cleared of trees will be drawn, in accordance with the "Rules for the arrangement of electrical installations". The deforestation of the plots will be coordinated with the S.E. “Moldsilva” and its subsidiaries, on whose balance sheet these plantations are located and, in the manner established by law and with permission issued by the Environmental Agency.

CHAPTER 3: THE DESCRIPTION OF THE 400 KV OHTL PASSING THE TERRITORY OF THE TARACLIA DISTRICT

3.1 General data about the selected corridor in the Taraclia District

The 400 kV OHTL Vulcanesti – Chisinau passes on the territory of the Taraclia District through the villages Albota de Sus, Albota de Jos, Balabanu, Novosiolovca, Aluatu, Salcia, Musaitu and Vinogradovca with the total length is 26169.36 m (26.2 km). In the figure below is presented the OHTL which passes on the territories Albota de Sus, Albota de Jos, Balabanu, Novosiolovca, Aluatu, Salcia, Musaitu and Vinogradovca villages.

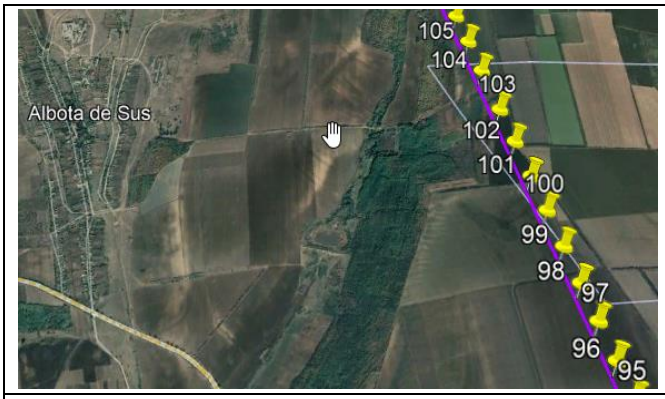


Fig. 3-1: The section of OHTL on the territories of village Albota de Sus

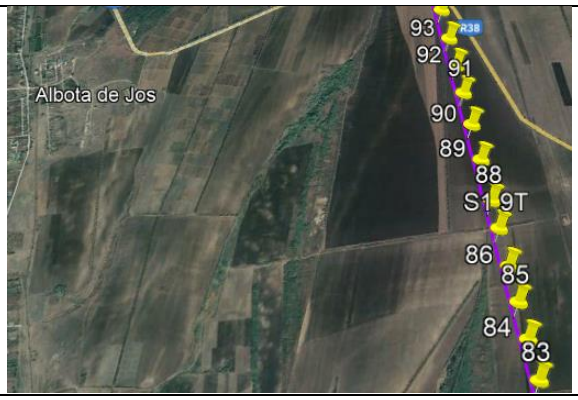


Fig. 3-2: The section of OHTL on the territories of village Albota de Jos

Fig. 3-3: The section of OHTL on the territories of village Balabanu

Fig. 3-4: The section of OHTL on the territories of village Novosiolovca

Fig. 3-5: The section of OHTL on the territory of village Aluatu

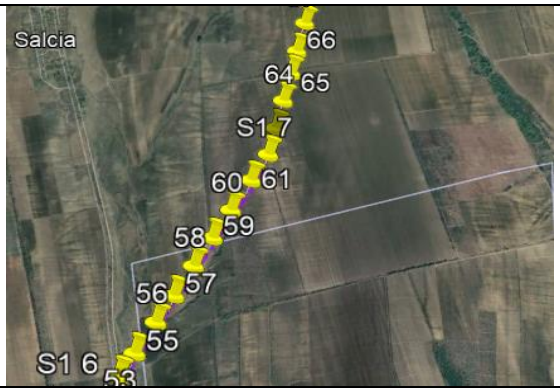


Fig. 3-6: The section of OHTL on the territory of village Salcia

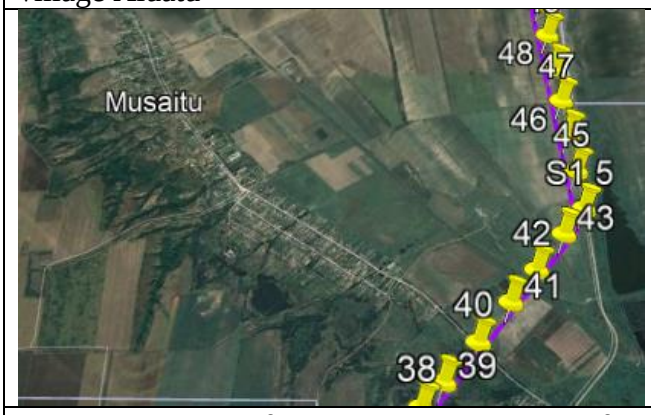


Fig. 3-7: Section of OHTL on the territory of the village Musaitu

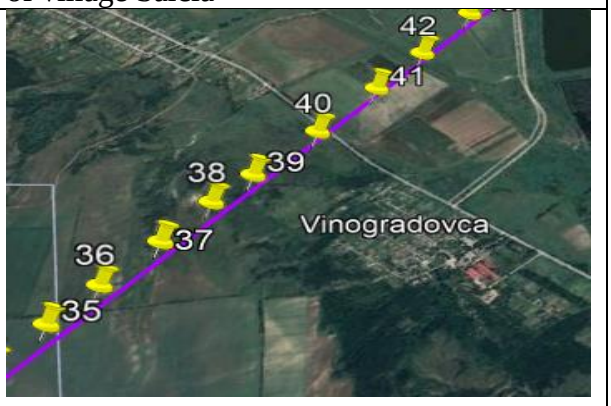


Fig. 3-8: Section of OHTL on the territory of the village Vinogradovca

The sector 400 kV OHTL passing on territories of villages Albota de Sus, Albota de Jos, Balabanu, Novosiolovca, Aluatu, Salcia, Musaitu and Vinogradovca, single circuit type, is designed in compliance with the Norms for Electrical Installations Arrangement. The OHTL starts from the Vulcanesti Substation and consists of 30 towers along the route, spaced apart at an average distance of 308 m.

The 400 kV OHTL towers will be self-supporting latticed steel towers of suspension and tension type. Specific for this section, towers are of two types (i) Suspension towers used for straight section of the line and (ii) Angle (tension) towers, used where the line changes direction.

The main technical characteristics of the 400 kV OHL passing through villages Albota de Sus, Albota de Jos, Balabanu, Novosiolovca, Aluatu, Salcia, Musaitu and Vinogradovca are presented in the table below.

Table 3-1: Tower types which shall be installed in villages Albota de Sus, Albota de Jos, Balabanu, Novosiolovca, Aluatu, Salcia, Musaitu and Vinogradovca

No.	Prov. No.	Tower Type	Span ahead (m)	Coordinates (East/North)
1.	120	R NS+E0+0	327.00	616394.79 5097159.29

No.	Prov. No.	Tower Type	Span ahead (m)	Coordinates (East/North)
2.	119	R NS+E0+0	303.00	616289.96 5096875.00
3.	118	R NS+E3+0	321.00	616178.91 5096573.83
4.	S1-10	R 60-E3+0	283.00	616081.00 5096308.30
5.	116	R NS+E3+0	292.02	616172.37 5096030.94
6.	115	R NS+E3+0	330.00	616275.61 5095717.51
7.	114	R NS+E3+0	331.00	616379.17 5095403.12
8.	113	R NS+E3+0	335.00	616483.99 5095084.94
9.	112	R NS+E3+0	328.00	616586.61 5094773.41
10.	111	R NS+E3+0	308.00	616682.97 5094480.87
11.	110	R NS+E3+0	320.00	616783.09 5094176.94
12.	109	R NS-E3+0	277.00	616869.76 5093913.84
13.	108	R NS+E0+0	323.00	616970.81 5093607.06
14.	107	R NS+E0+0	295.00	617063.11 5093326.87
15.	106	R NS+E0+0	278.00	617150.09 5093062.83
16.	105	R NS+E0+0	284.00	617238.95 5092793.09
17.	104	R NS+E3+0	307.00	617335.00 5092501.50
18.	103	R NS+E3+0	397.00	617459.21 5092124.43
19.	102	R NS+E3+0	319.00	617559.01 5091821.44
20.	101	R NS+E3+0	329.00	617661.95 5091508.96
21.	100	R NS+E0+0	315.00	617760.50 5091209.78
22.	99	R NS+E3+0	318.00	617860.00 5090907.74
23.	98	R NS+E0+0	314.00	617958.24 5090609.51
24.	97	R NS+E3+0	314.00	618056.48 5090311.27
25.	96	R NS+E0+0	316.00	618155.35 5090011.13
26.	95	R NS+E0+0	301.00	618249.52 5089725.25
27.	94	R NS+E6+0	321.00	618349.95 5089420.36
28.	93	R NS+E0+0	312.00	618447.57 5089124.03
29.	92	R NS-E3+0	283.00	618536.11 5088855.23
30.	91	R NS+E0+0	284.00	618624.97 5088585.49
31.	90	R NS+E3+0	312.00	618722.58 5088289.16
32.	89	R NS+E6+0	338.00	618828.33 5087968.12
33.	88	R NS+E12+0	373.00	618945.03 5087613.85
34.	S1-9T	R NS+E12+0	246.00	619022.00 5087380.20
35.	86	R NS+E3+0	330.03	619125.26 5087066.74
36.	85	R NS+E0+0	303.00	619220.07 5086778.95
37.	84	R NS+E3+0	305.00	619315.49 5086489.27
38.	83	R NS+E3+0	323.00	619416.56 5086182.48
39.	82	R NS+E3+0	310.00	619513.55 5085888.05
40.	81	R NS+E0+0	314.00	619611.79 5085589.81
41.	80	R NS+E3+0	314.00	619710.04 5085291.58
42.	79	R NS+E3+0	330.00	619813.29 5084978.15
43.	78	R NS+E3+0	328.00	619915.92 5084666.62
44.	77	R NS+E3+0	330.00	620019.17 5084353.19

No.	Prov. No.	Tower Type	Span ahead (m)	Coordinates (East/North)
45.	S1-8	R 30+E0+0	313.00	620117.10 5084055.90
46.	75	R NS-E3+0	287.01	620068.88 5083772.97
47.	74	R NS+E0+0	290.00	620020.16 5083487.10
48.	73	R NS+E0+0	304.00	619969.09 5083187.42
49.	72	R NS+E0+0	300.00	619918.69 5082891.68
50.	71	R NS+E3+0	309.00	619866.78 5082587.07
51.	70	R NS+E0+0	308.00	619815.04 5082283.45
52.	69	R NS+E3+0	303.00	619764.13 5081984.76
53.	68	R NS+E3+0	324.00	619709.7 5081665.4
54.	67	R NS+E3+0	323.00	619655.44 5081346.95
55.	66	R NS+E6+0	336.00	619598.99 5081015.73
56.	65	R NS+E6+0	261.00	619555.14 5080758.44
57.	64	R NS+E0+0	315.00	619502.22 5080447.91
58.	63	R NS+E3+0	306.00	619450.81 5080146.26
59.	S1-7	R 30-E3+0	284.00	619403.10 5079866.30
60.	61	R NS+E3+0	296.57	619273.41 5079599.59
61.	60	R NS+E3+0	340.00	619124.72 5079293.82
62.	59	R NS+E0+0	307.00	618990.47 5079017.73
63.	58	R NS+E0+0	298.00	618860.15 5078749.74
64.	57	R NS+E3+0	313.00	618723.28 5078468.25
65.	56	R NS-E3+0	275.00	618603.02 5078220.94
66.	55	R NS+E6+0	315.00	618465.26 5077937.66
67.	S1-6	R 60+E0+0	236.00	618362.06 5077725.42
68.	53	R NS+E3+0	302.67	618440.25 5077433.03
69.	52	R NS+E0+0	295.00	618516.47 5077148.05
70.	51	R NS+E3+0	289.00	618591.13 5076868.86
71.	50	R NS+E0+0	297.00	618667.86 5076581.94
72.	49	R NS+E3+0	304.00	618746.40 5076288.26
73.	48	R NS+E3+0	303.00	618824.68 5075995.55
74.	47	R NS+E0+0	294.00	618900.63 5075711.53
75.	46	R NS+E3+0	300.00	618978.14 5075421.71
76.	45	R NS+E3+0	313.00	619059.00 5075119.34
77.	S1-5	R 60+E3+0	317.00	619140.90 5074813.10
78.	43	R NS-E3+0	236.06	619020.62 5074609.98
79.	42	R NS+E6+0	320.00	618857.56 5074334.64
80.	41	R NS+E6+0	291.00	618709.29 5074084.25
81.	40	R NS+E9+0	358.00	618526.87 5073776.21
82.	39	R 30+E12+0	365.00	618340.89 5073462.15
83.	38	R NS+E9+0	225.00	618226.24 5073268.55
84.	37	R NS+E3+0	281.00	618083.06 5073026.76
85.	36	R NS-E3+0	314.00	617923.07 5072756.58
		Total length	**26169.36 m**	

3.1.1 Contractor facilities

The Contractor has rented a guest house in the Comrat town and the purpose of this house is for accommodation of the personnel. MEPIU's representatives visited the Contractor's facility for personnel accommodation in March 2023 and condition for accommodation are accepted.

The Contractor will organize an office in the mun. Comrat (ATU Gagauzia) by renting buildings with yard in the industrial area of the town. The Contractor will sign contract with owners of the buildings for entire construction period.

Fig. 3-9: Selected buildings for office in the mun. of Comrat[19]

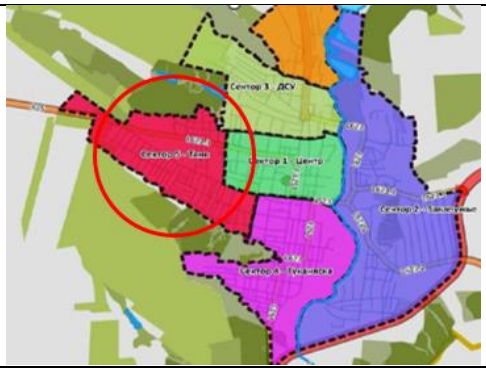


Fig. 3-10: The location of the industrial area in the sector no. 5 of the mun. Comrat[20]

The Contractor identified a plot for material storage in the countryside of the village Chirsova from Autonomous Territorial Unit Gagauzia and MEPIU visited the proposed storage area (land for construction) and discussed with the Mayor of the village Chirsova legal aspects of the plot allotment to the Contractor. The selected plot is the property of the village Chirsova.

Fig. 3-11: Selected construction plot for storage area in the v. Chisova[21]

Fig. 3-12: Selected plot for storage area in the v. Chirsova[22]

[19] https://www.cadastru.md/ecadastru/f?p=100:1:1074668296402538
[20] ПРОГРАММА РЕВИТАЛИЗАЦИИ МУН.КОМРАТ, 2022-2026
[21] https://www.cadastru.md/ecadastru/f?p=100:1:1074668296402538
[22] http://geoportal.md/ro/default/map#lat=121966.877178&lon=221034.402603&zoom=5&layers=66,226,_base10,_base11,_base13,_base19

The village Chirsova (storage area) and the mun. Comrat (regional office) are located in the middle of the OHTL corridor (length of 158 km) and theses places are selected by Contractor as perfect location for regional office, personnel accommodation and storage area.

For this planned activity (storage area in the village Chirsova) for storage materials and equipment, the Environmental Agency issued the Decision[23] no. 0191/962023 of 28.02.2023 for site organization. The Contractor shall develop an EHS Plan for storage area for keeping under control environment, community and personnel health and safety.

3.2 Description of the 400 kV OHTL equipment

3.2.1 OHTL towers

The proportion of angle tension towers is about 15-16 % of the total number of towers erected along the OHTL route. The steel towers proposed to be used have standard height up to conductor clamp point of 21 m. At crossings over OHTLs, national roads, the crossing towers provided are tension towers equipped with insulator strings with multiple columns. Steel towers shall be equipped with support for identification plates, support for number and support for warning plates. Supports for aerial numbering may be installed on the top of the suspension and/or angle towers. Overall dimensions electrical distances are complying with the provisions of the current design norm related to electrical installations. Towers anti-corrosive protection shall be made by zinc coating (thermal covering system – TC) executed in the factory not on site. The "Y" type tower designs for suspension and tension tower as well as the zones and corridors used for the baseline and impact assessments are provided in the figure below. The tower heights vary depending on the topography and objects crossed by the OHTL route.

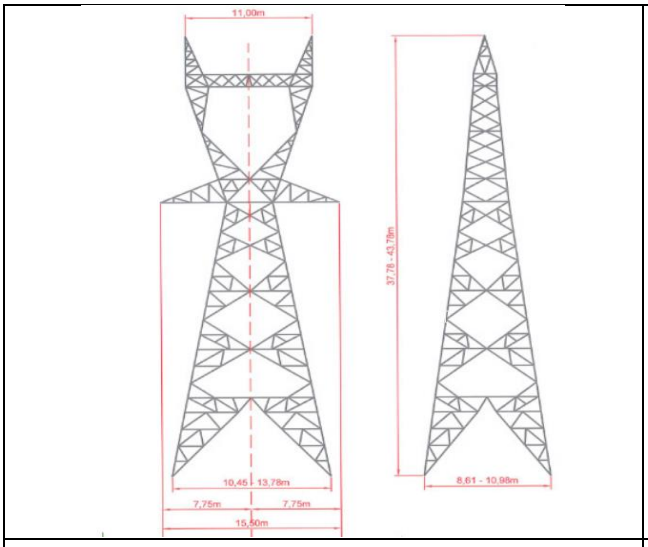


Fig. 3-13: The 400 kV OHTL tension tower type "Y" (longitudinal view/ lateral view)

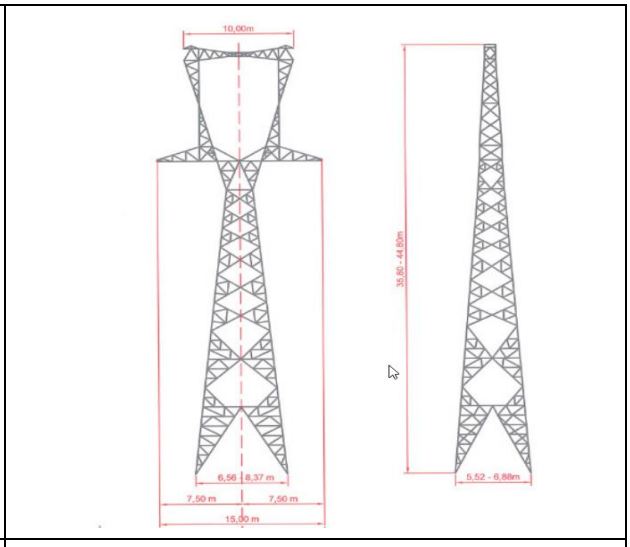


Fig. 3-14: The 400 kV OHTL ssuspension tower type "Y" (longitudinal view/ lateral view)

[23] Decision no. no. 0191/962023 of 28.02.2023 for site organization in the village Chirsova issued by the Environmental Agency is published on the MEPIU's web-site.

3.2.2 OHTL conductors

The 400 kV OHTL Vulcăneşti – Chişinău shall be equipped with 3 active/phase conductors, type ACSR 300/39 mm^2. The phase conductors will be protected against short and average waves oscillations (vibrations) using spacer dampers installed in spans, at unequal intervals, not exceeding the distance of 60 m. In order to diminish the effects against short waves oscillations (vibrations), if necessary, Stockbridge vibration dampers with 4 resonant frequencies are recommend to be used. Two ground wires will be installed, one optical fiber conductor type (OPGW 95) and the other one classical conductor type (Aluminium Clad Steel, ACS 95), that will be grounded for each tower; the protection against vibrations for both types of protection conductors will be ensured by Stockbridge vibration dampers with 4 working frequencies.

3.2.3 OHTL insulation

The 400 kV OHTL Vulcăneşti – Chişinău shall be equipped with insulator strings with toughened glass cap and pin elements sized for 400 kV according to the pollution levels in the crossed areas. The insulator strings will be provided with upper and lower guarding rings.

3.2.4 Artificial earthing system

The artificial earthing system shall be installed at each tower. The types of used systems shall depend on the specific location areas (e.g. in low traffic areas, the towers earthing system will be made of zinc coated steel strip; for towers located in high traffic areas the earthing system with several outlines will be executed in order to achieve the value imposed for touch and step voltages).

3.2.5 Tower foundations

The foundation orientation[24] of each tower shall be placed in such a manner that the position of the longitudinal axis of the cross-arm or insulator attachment shall lie In a plane perpendicular to the traverse of the line for the Foundation of each suspension tower in a straight-line section & In a plane bisecting the interior angle formed by the intersection of the adjacent line traverses for the foundations of each angle tower.

[24] Method Statement for Foundation Works, Doc. No. TI-209/CIVL/CONC/MS-03 developed by contractor KEC International

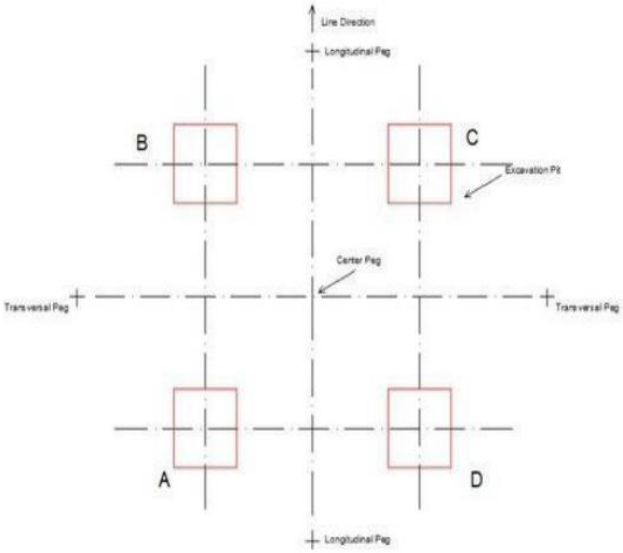


Figure 3-15: The tower foundation

The limits of excavations shall be marked by the placement of excavation pegs by the surveyor, as per the approved classification. The dimensions of placement of the excavation pegs shall be determined by reference to the appropriate and approved stub setting and excavation drawing cross-referred to the approved structure list (for foundation type, setting level, leg and chimney extensions). The Supervisor shall record all setting out dimensions and the excavation lines & other offset reference lines.

The tower foundations will be cast or drilled, of reinforced concrete pad and chimney type, sized according to the geotechnical characteristics of soil (good, normal and poor soils). During this design stage, in order to estimate the types of foundations along the 400 kV OHTL route, drilling works and laboratory analyses related to soil structure have been performed. According to the performed drillings most of the soil intercepted down to the depth of 8.00 m is yellow-brown sandy clay, hard; grey clay, hard or brown-dark brown sandy clay, hard. Thus, the soil is included in the category of soils good for foundation (plasticity Ip > 20%; pores index e < 1.1; consistency index Ic >= 0.75).

3.2.6 Notification, warning and aerial plates

After completion of tower erection works, the following installation works shall be executed at OHTL towers: support plates; warning plates; number plates, marked with the width of safe passage corridor; aerial plates, on tower top – if necessary.

3.2.7 Access roads

The contractor shall identify access roads in the detailed design process to be built longitudinal access track to each of the towers of the line and transversal access tracks that can be used to reach

the various points of the line quickly from the existing main roads by complying with WB's Toll roads requirements[25]. These tracks will be suitably levelled with a sufficient width of lateral vegetation being cleared.

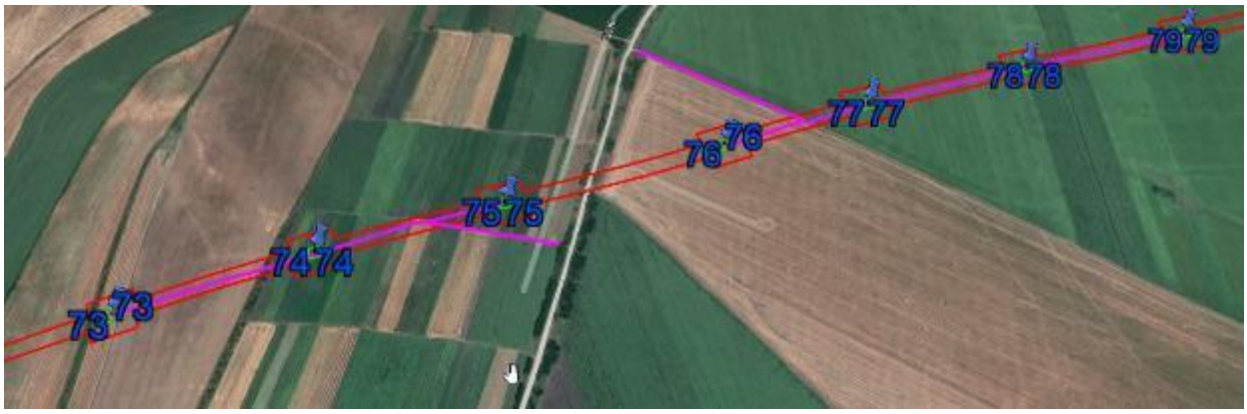


Figure 3-16: Access road to the tower's foundations (pink colour)

In this regard, the contractor has identified local existing field roads, property of local public authorities, and owners of the affected plots by the construction of the temporary access roads (in pink) to the tower's location for transporting materials and equipment in order to have a minimal impact on agricultural land. The impacts associated with the development of access roads and other ancillary facilities will be addressed in the RAP. The Contractor has to make sure after the works completed the state of already existing access roads are at least similar or in better than before Project activities.

3.2.8 Safety Requirements

3.2.8.1 The OHTL safety zone

For protection of the 400 kV OHTL Vulcăneşti – Chişinău a 75 m wide corridor (safety corridor) where no construction is allowed has been established; the 75 m corridor is sufficient to fulfil the provisions of the Regulation[26] regarding the protection of electrical network, which specifies that the 400 kV OHTL safety zone (the land and airspace limited by vertical planes, on both sides of line), shall be 30 m either side of the outer conductors.

For the OHTL safety corridor, the Contractor shall prepare profile plans with tower positions plotted thereon. Tower spotting shall be based on the ground profile drawings (terrain model based on geodetic survey) prepared by the Contractor and the design data and principles.
During preparation of detail design, the Contractor is responsible to submit complete information about preparation of tower polygon (areal) for each tower location.

[25] WB's Toll roads (relevant sections for access roads): https://www.ifc.org/content/dam/ifc/doc/2000/2007-toll-roads-ehs-guidelines-en.pdf
[26] Source: GD no. 514 of 23.04.2002

Figure 3-17: The 400 kV OHTL Safety Zone

The specific requirements to be observed for the 400 kV OHTL Vulcăneşti – Chişinău are presented below:

- For protection of the 400 kV OHL Vulcăneşti – Chişinău, based on the results of field work, a 75 m wide corridor (safety corridor) where no construction is allowed has been established; the 75 m corridor is sufficient to fulfil the provisions of GD no. 514/2002, the Regulation regarding the protection of electrical network, which specifies that the 400 kV OHTL safety zone (the land and airspace limited by vertical planes, on both sides of line), shall be 30 m either side of the outer conductors.
- The minimum clearance and sizes at crossing and near other objects (OHTL, cables, roads etc.) are presented in Tables below.

Table 3-2: Minimum sizes at crossing the 400 kV OHTL and minimum clearance between towers

No.	Crossing	MU	Value
1	Normal land	m	8
2	In localities	m	15.5
3	Main roads	m	9.5
4	Railways	m	13.5
5	Power line	m	4
6	Trees	m	6
7	Main roads	m	Tower height + 5 m
8	Railways	m	Tower height + 5 m
9	Secondary roads	m	Tower height
10	Power lines	m	5
11	Underground telecommunication lines	m	10-50

3.3 Contractors Facilities

3.3.1 Construction Activities

The Site installation to be provided by the contractor shall include the following services/works:

- Temporary contractor's office, social room, sanitary rooms and storage;
- Clearing, grubbing, stripping, excavation, levelling, draining, dumping of excavated materials etc. for the areas required for the Site installation as necessary;
- Distribution of electric power and distribution to each individual consumer including maintenance;
- Supply and distribution of drinking water;
- Sewer system and sewage disposal;
- Execution of all mechanical and electrical installation, foundation work for the equipment, machinery, storage and site facilities, etc.;
- Temporary timbering for working spaces, etc.;
- Movable fire-fighting equipment;
- Waste disposal.

3.3.2 Operation

3.3.2.1 Operation by Contractor

The Contractor shall prepare and submit for MEPIU's approval the Contractor's Environmental and Social Management Plans and Contractor' OHS Plan within 30 days of the starting the construction works.

The Contractor shall develop its own Contractor's ESMP by taking into consideration the requirements established in the Site Specific ESIA/ESMP and it is required that a number of more detailed E&S management plans and programs to be prepared by contractor before starting the construction activities on site, including:

- Emergency Preparedness and Response Plan;
- Traffic Management Plan;
- Land Clearing, Erosion Control, and Site Restoration Plan;
- Chance Find Procedure;
- Air Quality Management Plan/Procedure;
- Noise & EMF Control Plan/Procedure;
- Waste and Materials Management Plan;
- Spill Prevention and Response Plan;
- Work Camp Management Plan (including accommodations plan if workers are to be accommodated);
- Worker Code of Conduct;
- Construction and Post-Construction Bird Monitoring Programs;
- Vegetation Management Plan.

Additionally, the Contractor shall develop its own Contractor's OHS Plan by taking into consideration the requirements established in the Site Specific OHS Plan and it is required that a Human Resources Plan and Social Management Plan shall be developed by Contractor before string the construction activities on sites.

3.3.2.2 Operation by the Beneficiary SE Moldelectrica

The Beneficiary shall keep under control identified risks for the new 400 kV OHTL in the present document and it is recommended to implement an environmental and social managements system in order to comply with the Global International Industrial Practices.

3.3.3 Decommissioning

3.3.3.1 Decommissioning by Contractor

As soon as the work covered by these specifications is completed and before the Contract's final liquidation, the Contractor with prior approval of the Engineer shall remove from the Employer's property all buildings, installations and temporary facilities erected aboveground. The Contractor shall fill with earth all basements and underground areas, leaving the terrain completely clean and with a good appearance to a condition similar to adjacent natural areas, if necessary, by means of the spreading of topsoil.

The Contractor shall also treat the excavations executed for his own convenience, such as temporary roads, in a way acceptable to the Engineer. If the Contractor refuses to remove the construction installations or if the operation is not made as previously specified within 2 months from completion of the work, the constructions and other installations may be removed by the Employer and the removal costs shall be deducted from the Contractor's final payment.

3.3.3.1 Decommissioning by the Beneficiary SE Moldelectrica

During the decommissioning stage, the operator shall comply with applicable law of Republic of Moldova regarding the demolition process and shall receive Demolition Authorization for the 400 kV OHTL. Identified the environmental and social mitigation measures in the present document shall be take into consideration for development of an ESMP as well as a Technical Design for demolition process.

3.4 Analysis of Alternatives for the 400 kV OHTL

For this sector it was selected the best feasible option to avoid forest and protected areas and the safety analyzed corridor consists of 10 km on both side of the line and the socio-economic corridor consists of 500 m on the both sides of the line.

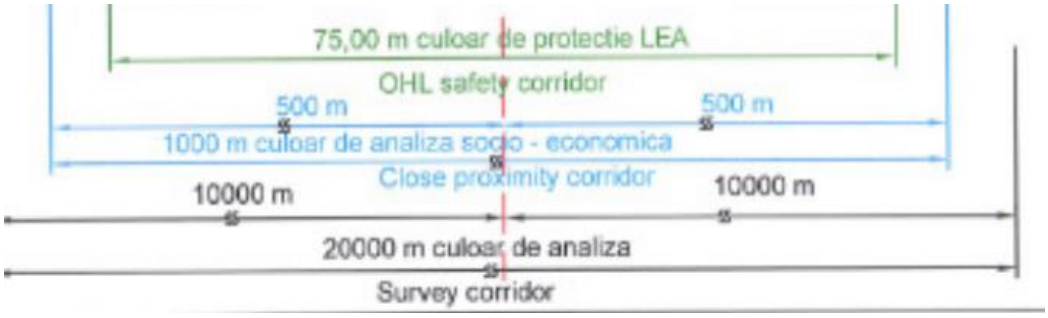


Figure 3-18: The socio-economic corridor to be analyzed during the site specific environmental and social impact assessment

The environmental baseline impact shall be analyzed based on safety corridor of 10000 m on the both side of the line.

3.5 Line Survey and Route Finalization

3.5.1 Route Finalization using LiDAR Survey

The Contractor carried out the detailed line survey by using LiDAR technology, following the proposed initial line route, in order to finalize the line design. In the corridor finalization process were used the following principles:

- avoiding inhabited areas, villages and individual houses wherever possible; minimization of the eventual impact of construction activities to properties
- avoiding landslide areas
- avoiding protected or otherwise restricted areas; diligent and considerate approach to cultural heritage and the environment
- Avoid or minimize crossings over other high voltage lines and main roads. The crossing angles need to be as close to 90 degrees as possible.
- remaining in proximity of the existing roads in order to facilitate access for construction, inspection and maintenance
- avoiding areas prone to flooding and erosion, intermittent water courses, run-off areas and areas of alluvial sediment
- access to tower locations, and in particular to angle towers needs to enable supply and positioning of conductor drums and stringing equipment
- The construction access plan should also provide for future maintenance and operation access.

Final detailed drawings of the line route shall be submitted to the Employer/Engineer for approval.

3.5.2 Profile Plans

The contractor developed Plans and Profile for each district based on the LiDAR survey:

Table 3-3: Plans and Profiles for Districts in the Republic of Moldova

No.	Districts	Affected villages and communes	Sections
1	District Leova	Borogani	Section S1-16 – S2-22 Section S2-22 – S2-24
2	District Ialoveni	Zimbreni, Costesti, Hansca, Molesti	Section 3-44 – S 3-38
3	District Hincesti	Buteni and Firladeni	Section S3-31T – S 3-38
4	District Cimislia	Town Cimișlia, Ivanovca Nouă, Lipoveni, Gura Galbenei, Gradiște, Valea Perjei, Ecaterinovca, Javgur, Cenac, Topala	Section S3-38 – S3-31T Section S2-27 – S3-31T Section S2-24 – S2-27 Section S2-22 – S2-24
5	District Chisinau	Com. Bacioi	Section S3-44 – S3-38
6	District Taraclia	Albota de Sus, Albota de Jos, Balabanu, Novosiolovca, Salcia, Musaitu, Vinogradovca	Section S1-08 – S1-11 Section S1-04 – S1-08
7	District Cahul	Burlaceni, Iujnoe and Borceag	Section S1-01 – S1-04 Section S1-11 – S1-14
8	District Vulcanesti	Vulcanesti (UTA Gagauzia)	Section S1-01 – S1-04
9	District UTA Gagauzia	Dezghingea, Congazcicul de Jos Chirsova, Congaz, Svetlîi, Vulcănești	Section S2-22 – S2-24 Section S1-16 – S2-22 Section S1-11 – S1-14 Section S1-14 – S1-16 Section S1-08 – S1-11 Section S1-04 – S1-08

3.5.3 Approval of Plans and Profiles

The corridor for the 400 kV OHTL shall be approved by the Government Decision and shall be applicable in the expropriation process in accordance with provision of Law no. 120/2022 on declaration of construction works for 400 kV Vulcanesti – Chisinau Overhead Transmission Line (OHTL) and Back-to-Back (BtB) station as public utility of national interest. The Government Decision which approve the 400 kV OHTL corridor shall nominate the cadastral numbers and areas of expropriated lands, as well as the category of land use, in compliance with the applicable legal provisions / norms, and which will establish the Grievance Redress Commission.

Identified affected people, based on information provided by IPOT, for the construction of the 400 kV OHTL Vulcanesti – Chisinau, shall be assessed and mitigation measures for the negative effects of the expropriation process shall be part of Resettlement Action Plan, envisaged under the provisions of the Financing Agreements and elaborated in accordance with OP 4.12 of the World Bank.

The approved corridor shall be used by the IPOT to develop the following cadastral plans:

- Plan with the location of all expropriated / transferred properties;
- Databases with private and public property;
- Evaluation reports on the immobile subject to expropriation;
- The cadastral registration of the expropriation corridor;

- The cadastral plan of the expropriation corridor;
- Documents attesting the removal from the agricultural / forestry circuit.

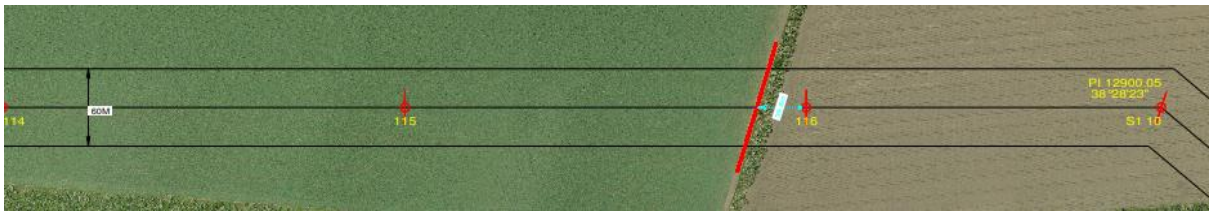
3.5.4 Specific Plans and Profiles for the Taraclia District

Section S1-08 – S1-11 and S1-04 – S1-08 were developed by contractor for the Taraclia District and this information provide detailed information regarding the location of towers.

Towers 120, 119, 118, S1-10

120	R NS+E0+0	Agricultural field	All towers are located in the agricultural field. The OHTL corridor cross local existing field roads and hedgerows.
119	R NS+E0+0	Agricultural field	
118	R NS+E3+0	Agricultural field	
S1-10	R 60-E3+0	Agricultural field	

Towers 116, 115, 114



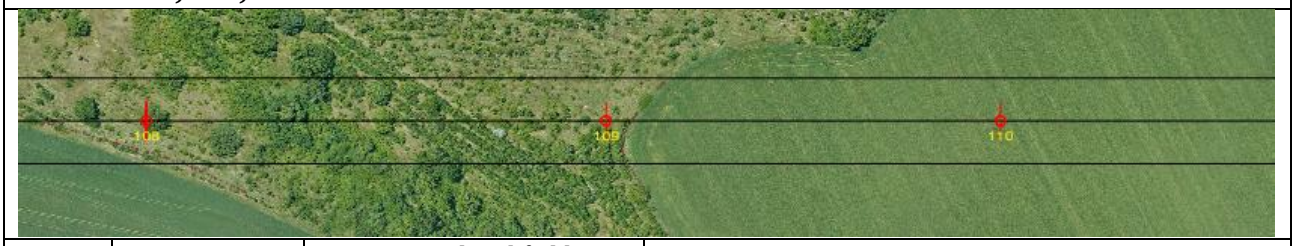
116	R NS+E3+0	Agricultural field	Towers are located in the agricultural field. The OHTL corridor cross the existing local public roads and hedgerows.
115	R NS+E3+0	Agricultural field	
114	R NS+E3+0	Agricultural field	

Towers 113, 112, 111

113	R NS+E3+0	Agricultural field	
112	R NS+E3+0	Agricultural field	

111	R NS+E3+0	Agricultural field	All towers are located in the agricultural field. The OHTL corridor cross local existing field roads, hedgerows, 10 kV OHTL

Towers 110, 109, 108

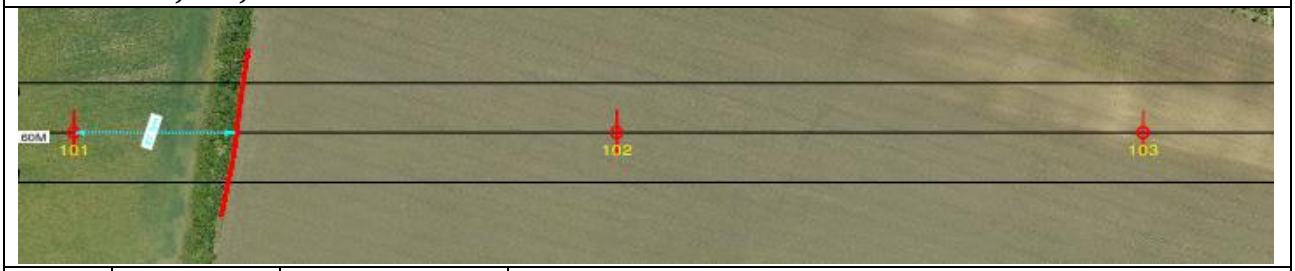


110	R NS+E3+0	Agricultural field	Tower no. 110 is located in the agricultural field, but towers nos. 109 and 108 are located in green space of LPA. The OHTL corridor cross local existing field roads.
109	R NS-E3+0	Green space	
108	R NS+E0+0	Green space	

Towers 107, 106, 105, 104

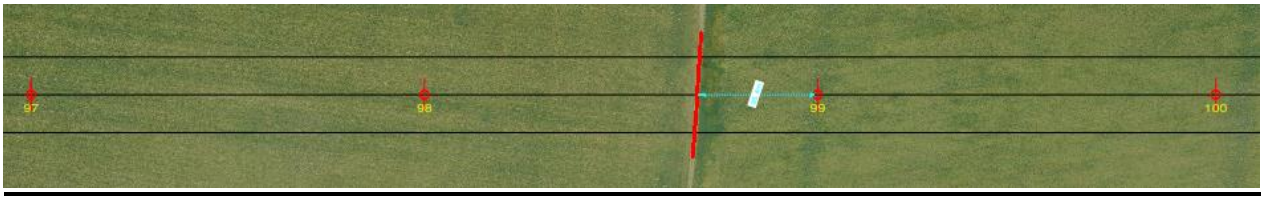
107	R NS+E0+0	Agricultural field	All towers are located in the agricultural field. The OHTL corridor cross local field roads.
106	R NS+E0+0	Agricultural field	
105	R NS+E0+0	Agricultural field	
104	R NS+E3+0	Agricultural field	

Towers 103, 102, 101



103	R NS+E3+0	Agricultural field	All towers are located in the agricultural field. The OHTL corridor cross local field roads and hedgerows.
102	R NS+E3+0	Agricultural field	
101	R NS+E3+0	Agricultural field	

Towers 100, 99, 98, 97



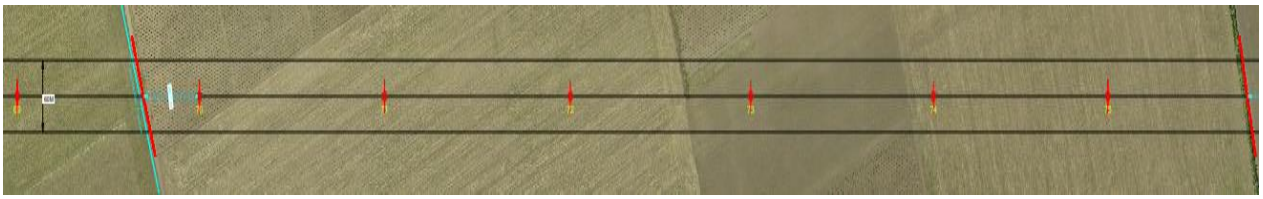
100	R NS+E0+0	Agricultural field	All towers are located in the agricultural field. The OHTL corridor cross local field roads.
99	R NS+E3+0	Agricultural field	
98	R NS+E0+0	Agricultural field	

97	R NS+E3+0	Agricultural field	
Towers 96, 95, 94			
			
96	R NS+E0+0	Agricultural field	All towers are located in the agricultural field. The OHTL corridor cross the national road, Taraclia gaz-pipeline and hedgerows.
95	R NS+E0+0	Agricultural field	
94	R NS+E6+0	Agricultural field	
Towers 93, 92, 91, 90			
			
93	R NS+E0+0	Agricultural field	All towers are located in the agricultural field. The OHTL corridor cross local field roads and hedgerows.
92	R NS-E3+0	Agricultural field	
91	R NS+E0+0	Agricultural field	
90	R NS+E3+0	Agricultural field	
Towers 89, 88, s1-9T			
			
89	R NS+E6+0	Agricultural field	All towers are located in the agricultural field. The OHTL corridor cross local field roads and hedgerows, Orange Cable and 10 kV OHTL
88	R NS+E12+0	Agricultural field	
S1-9T	R NS+E12+0	Agricultural field	
Towers 86,85, 84, 83			
			
86	R NS+E3+0	Agricultural field	All towers are located in the agricultural field. The OHTL corridor cross local field roads.
85	R NS+E0+0	Agricultural field	
84	R NS+E3+0	Agricultural field	
83	R NS+E3+0	Agricultural field	

Towers 81, 81, 80, 79, 78, 77, S1-8

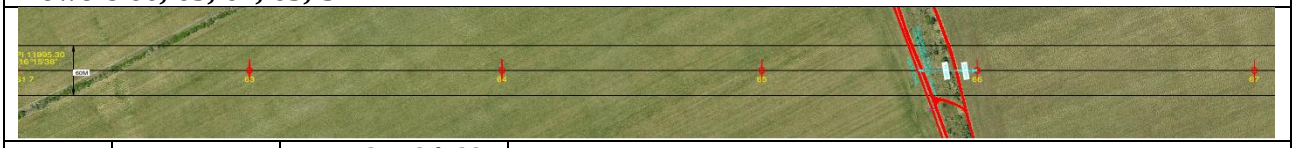
82	R NS+E3+0	Agricultural field	All towers are located in the agricultural field. The OHTL corridor cross local field road.
81	R NS+E0+0	Agricultural field	
80	R NS+E3+0	Agricultural field	
79	R NS+E3+0	Agricultural field	
78	R NS+E3+0	Agricultural field	
77	R NS+E3+0	Agricultural field	
S1-8	R 30+E0+0	Agricultural field	

Towers 75, 74, 73, 72, 70, 69, 68, 67



75	R NS-E3+0	Agricultural field	All towers are located in the agricultural field. The OHTL corridor cross local field roads and Taraclia gaz-pipeline.
74	R NS+E0+0	Agricultural field	
73	R NS+E0+0	Agricultural field	
72	R NS+E0+0	Agricultural field	
71	R NS+E3+0	Agricultural field	
70	R NS+E0+0	Agricultural field	
69	R NS+E3+0	Agricultural field	
68	R NS+E3+0	Agricultural field	
67	R NS+E3+0	Agricultural field	

Towers 66, 65, 64, 63, S1-7



66	R NS+E6+0	Agricultural field	All towers are located in the agricultural field. The OHTL corridor cross hedgerows, Moldtelecom cable, 10 kV OHTL, Taraclia Gaz-pipeline
65	R NS+E6+0	Agricultural field	
64	R NS+E0+0	Agricultural field	
63	R NS+E3+0	Agricultural field	
S1-7	R 30-E3+0	Agricultural field	
61	R NS+E3+0	Agricultural field	

Towers 60, 59, 58, 57, 56, 55,

60	R NS+E3+0	Green space	All towers are located in the agricultural field, the OHTL corridor cross 110 kV OHTL and local public field roads, 10 kV OHTL and national road.
59	R NS+E0+0	Agricultural field	
58	R NS+E0+0	Agricultural field	

57	R NS+E3+0	Agricultural field	
56	R NS-E3+0	Agricultural field	
55	R NS+E6+0	Agricultural field	

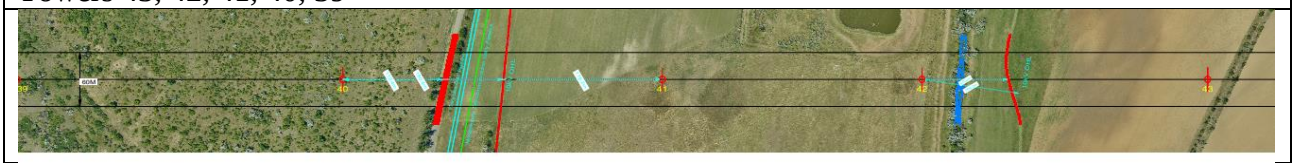
Towers S1-6, 53, 52, 51

S1-6	R 60+E0+0	Green space	All towers are located in the agricultural field, the OHTL corridor cross 110 kV OHTL and local public field roads, 10 kV OHTL and national road. Tower no. S1-6 is located in the green area.
53	R NS+E3+0	Agricultural field	
52	R NS+E0+0	Agricultural field	
51	R NS+E3+0	Agricultural field	
50	R NS+E0+0	Agricultural field	

Towers 49, 48, 47, 46, 45, S1-5

49	R NS+E3+0	Agricultural field	All towers are located in the agricultural field, the OHTL corridor cross the local public field roads and hedgerows. Tower no. 48 is located in the green area.
48	R NS+E3+0	Green space	
47	R NS+E0+0	Agricultural field	
46	R NS+E3+0	Agricultural field	
45	R NS+E3+0	Agricultural field	
S1-5	R 60+E3+0	Agricultural field	

Towers 43, 42, 41, 40, 39



43	R NS-E3+0	Agricultural field	All towers are located in the green space property of LPA, the OHTL corridor cross the local public field roads and hedgerows, 10 kV OHTL, Taraclia Gaz-pipeline, Moldtelecom cable, national road. Tower no. 43 is located in the agricultural field.
42	R NS+E6+0	Green space	
41	R NS+E6+0	Green space	
40	R NS+E9+0	Green space	
39	R 30+E12+0	Green space	

Towers 39, 38, 37, 36

39	R 30+E12+0	Green space	All towers are located in the green space property of LPA, the OHTL corridor cross the local public field roads.
38	R NS+E9+0	Green space	

37	R NS+E3+0	Green space	
36	R NS-E3+0	Green space	

According to the Regulation regarding the protection of electrical network approved through the Government Decision no. 514/2002, the width of the OHTL safety corridor shall be maintained clear without any trees and based on these documents the Environmental Agency shall issue the trees cutting permit.

Much more information about the project affected persons and mitigation measures can be found in RAP developed by the Consultant. Project's various activities are associated with the implementation of the project. The following table supplies a list of typical activities per project phase with a short description. Additional information is presented above in the chapter 3 for some of the most important activities. More detailed information is provided in detailed design and technical reports.

Table 3-4: The Project activity of the project life cycle of the 400 kV OHTL

No.	Environmental & Social Components/Phases	Planned activities for the project's stages
1	**PRE-CONSTRUCTION STAGE**	
1.1	Land acquisition	Procedure relating to agreements with landowners
1.2	Displacement of populations	Resettlement process of assets and economic activities of PAPs
2	**CONSTRUCTION**	
2.1	Site preparation	Land and technical survey
2.2		Site preparation activities (deforestation, removal of topsoil, excavation, earthworks) for the construction of temporary and permanent components of the project (access roads, storage area, tower foundations)
2.3	Installation of work site	Settling of workers' camp and other temporary facilities and infrastructure used during construction (waste, water, energy, etc.)
2.4	Construction works	Construction of the power transmission line and substations
2.5		Insurance of OHS aspects on construction sites
2.6	Transportation & circulation	Movement of road vehicles, trucks and construction equipment for labor movement and the supply or materials and equipment during construction, including fueling and maintenance of vehicles and machinery.
2.7	Purchase of materials/goods and services	Purchases required for the construction of the 400 kV OHTL
3	**OPERATION**	
3.1	Operation of 400 kV OHTL	Presence and operation of equipment, and inspection and maintenance of conductor, towers and structure in substations
3.2		Insurance of OHS aspects on site
3.2	Vegetation management	Vegetation clearance associated with the maintenance of the ROW
3.3	Wastes and hazardous materials management	Handling operations and storage pf hazardous wastes and used during the operation, including oil used in transformers in substations
3.4	Transportation & circulation	Employee transportation and movement of vehicles in the ROW, including the fueling and maintenance of vehicles.
3.5	Purchase of materials/goods and services	Purchases required for the operation of the 400 kV OHTL
4	**DECOMMISSIONING**	
4.1	Removal of installations	Works related to the dismantling of facilities and activities associated with final restoration (decontamination sites, re-naturalization, etc.)

No.	Environmental & Social Components/Phases	Planned activities for the project's stages
4.2		Insurance of OHS aspects on site
4.3	Purchase of materials/goods and services	Purchases required for completion of the decommission work.

3.6 Implementation Schedule

The Contractor revised the Work Plan and shall receive the Construction Permit from the Chairman of the Taraclia District on Q-1, 2024 and shall start the construction works also on Q-1, 2024. The Work Plan is presented below.

Table 3-5: The revised Contractor's Work Plan

No.	Task name	Duration	Baseline 1 Start	Baseline 1 Finish
1	Verification & expertisation of the tehnical design	60	18.05.2023	31.09.2023
2	Construction Autorisation issued by the Taraclia District	30 days	Q-1, 2024	Q-1, 2024
3	Commencement Notice issued by MEPIU regarding starting the construction activity	2	Q-1, 2024	Q-1, 2024
4	Final ROW Easement by MEPIU	54 days	Q-1, 2024	Q-1, 2024
5	Acces Road	250	Q-1, 2024	May 2024
6	Soil Investigation, Submission & Approval of Report	300	Q-1, 2024	July2024
7	Foundation	380	Q-1, 2024	27.12.2024
8	Tower Erection	280	Q-1, 2024	02.04.2025
9	Stringing	285	Q-1, 2024	14.05.2025
10	Pre-commissioning	60	28.03.2025	19.06.2025

CHAPTER 4: SOCIO-ECONOMIC BASELINE[27]

4.1 Administrative Setup

4.1.1 General

The South Development Region[28] (RDS) within the Regional Development Agency South[29] - includes 8 districts: Basarabeasca, Cahul, Cantemir, Căuşeni, Cimişlia, Leova, Ştefan-Vodă and Taraclia, occupying 24% of the territory of the Republic of Moldova. The population of the region constitutes 15% of the total population of the country. The infrastructure of the localities is composed of 10 cities without municipality status (including 8 district centers) and 278 rural localities organized in 177 communes. The towns of the region are: Basarabeasca, Cahul, Cantemir, Causeni, Căinari, Cimişlia, Leova, Iargara, Ştefan-Vodă and Taraclia. The largest city of the region is the city of Cahul.

In accordance with the provisions of the Law on the administrative-territorial organization of the Republic of Moldova[30], the Taraclia District is made up of 26 localities, divided into 15 administrative-territorial units of level I: 2 cities; 6 communes with 17 villages and 7 villages, which do not belong to any commune.

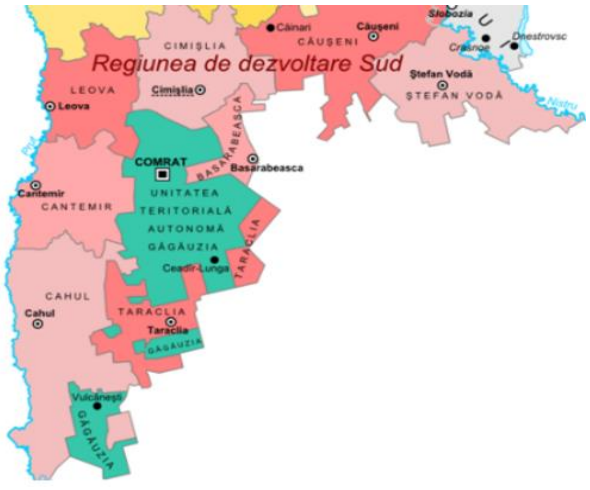


Fig. 4-1: The Taraclia District located in the south of Republic of Moldova

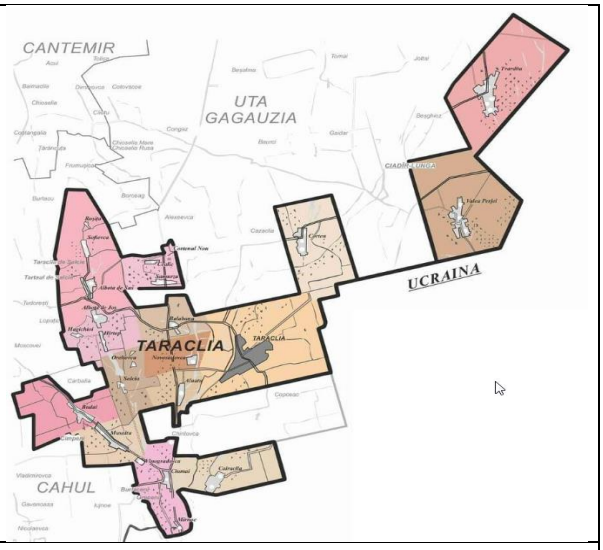


Fig. 4-2: The Taraclia District[31] structure

[27] Source: Data are provided in the Social Report developed by the Consultant for providing consulting services for development of Site-Specific ESIA/ESMP for the construction of a new 400kV Vulcanesti-Chisinau Single-Circuit Overhead Transmission Line and upgrading of the 330/110/35 kV Chisinau Substation

[28] Source: http://adrsud.md/pageview.php?l=ro&idc=370&t=/Regiunea-de-Dezvoltare-Sud/Prezentare&

[29] http://adrsud.md/

[30] Lege nr. 764 din 27.12.2001 privind organizarea administrativ-teritorială a Republicii Moldova

[31] https://raiontaraclia.md/pasport-rajona/

The town of Taraclia is located in the south of the Bugeac steppe, on the left side of the Lunguta river, 161 km from the capital of Moldova, Chisinau.

The Taraclia region is located on the South part of Republic of Molodva undulating plain, in the Budjak steppe, on both sides of the Taraclia river. This is one of the smallest districts of the republic in terms of area and population. The total area of the district is 67369 hectares or 674 km2 - 2% of the territory of the republic. It borders on Gagauzia, Cahul region and Odessa region of Ukraine. It consists of two enclaves, the northern one (with the center in the city of Tvarditsa) borders only on Gagauzia in the west and Ukraine in the east. The southern, larger part of the region borders on the Odessa region of Ukraine, on the three constituent parts of the ATU Gagauzia, and also on the Cahul region of the Republic of Moldova (in the west). Taraclia region is an administrative-territorial unit of the Republic of Moldova. The administrative center is the city of Taraclia. The district was created on November 10, 1980. The district includes 26 settlements. According to the territorial structure, these villages are included in 15 mayoralties.

4.1.2 The village Albota de Sus

The village of Albota de Sus[32] is a locality in Taraclia District located at latitude 45.9733 longitude 28.4741 and an altitude of 66 meters above sea level. This locality is under the administration of the Taraclia District.

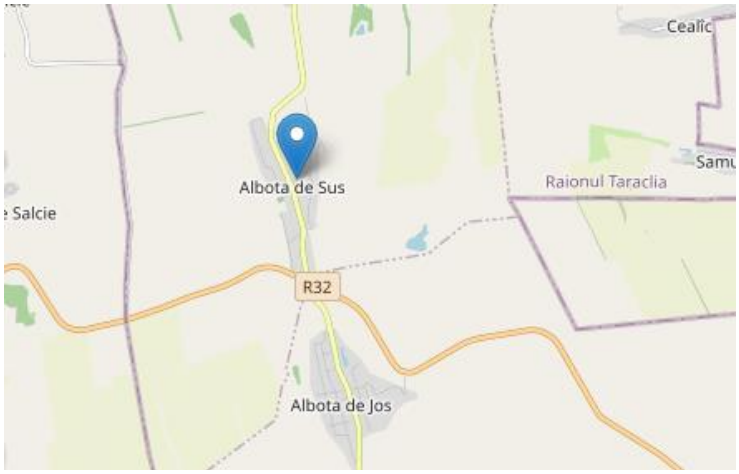


Fig. 4-3: The location of the village Albota de Sus, Taraclia District

Direct distance to Taraclia is 23 km and to Chisinau is 110 km.

[32] https://raiontaraclia.md/primerii/

4.1.3 The village Albota de Jos

The village of Albota de Jos[33] is a locality in Taraclia District located at latitude 45.9458 longitude 28.4844 and altitude of 49 meters above sea level. This locality is under the administration of the Taraclia District.

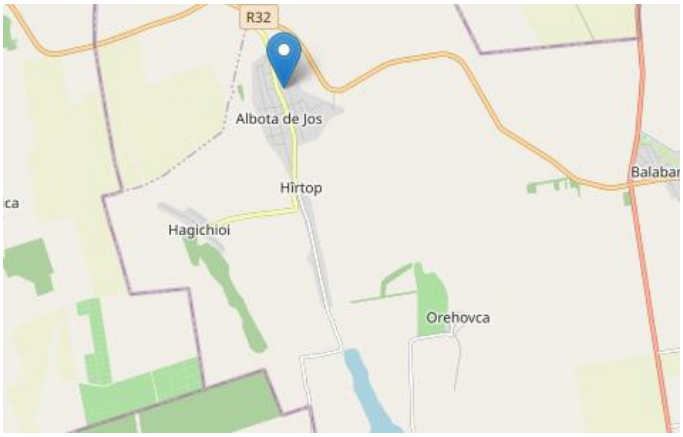


Figure 4-4: The location of the village Albota de Jos, Taraclia District

Direct distance to Taraclia is 22 km. Direct distance to Chisinau is 112 km.

4.1.4 The village Balabanu

The village of Balabanu is a locality in Taraclia District located at latitude 45.9319 longitude 28.5811 and an altitude of 40 meters above sea level. This locality is under the administration of the Taraclia District.

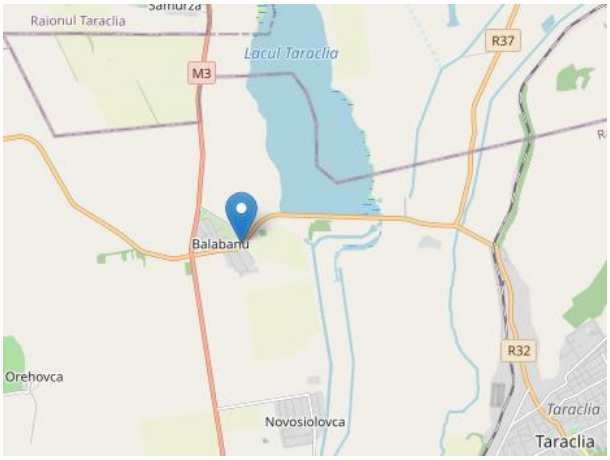


Figure 4-5: The location of the village Balabanu, Taraclia District

[33] https://raiontaraclia.md/primerii/

Direct distance to Taraclia is 11 km. Direct distance to Chisinau is 110 km.

4.1.5 The village Novosiolovca

The village of Novosiolovca[34] is a locality in Taraclia District located at latitude 45.9005 longitude 28.6016 and altitude of 14 meters above sea level. This locality is under the administration of the Taraclia District.

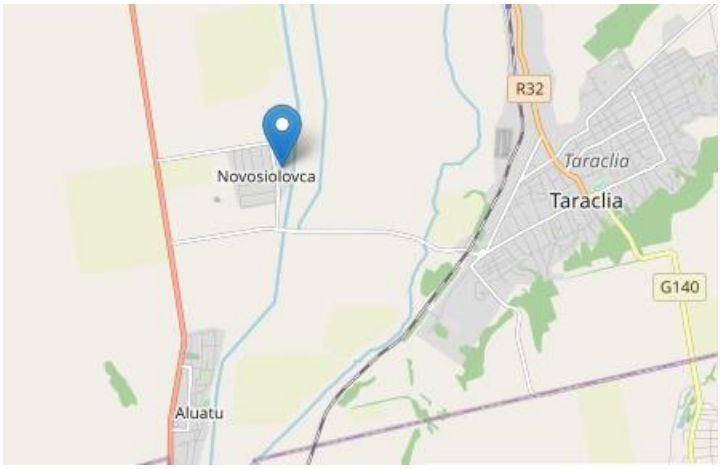


Figure 4-6: The location of the village Novosiolovca, Taraclia District

Direct distance to Taraclia is 8 km. Direct distance to Chisinau is 112 km.

4.1.6 The village Aluatu

The village of Aluatu[35] is a locality in Taraclia District located at latitude 45.8661 longitude 28.5858 and an altitude of 10 meters above sea level. This locality is under the administration of the Taraclia District.

[34] https://raiontaraclia.md/primerii/
[35] Source: https://localitati.casata.md/index.php?action=viewlocalitate&id=8716

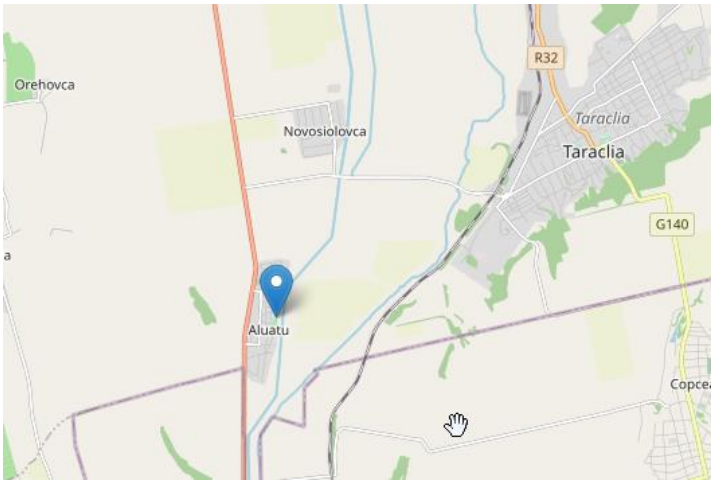


Figure 4-7: The location of the village Aluatu, Taraclia District

Direct distance to Taraclia is 11 km. Direct distance to Chisinau is 116 km.

4.1.7 The village Salcia

The village Salcia[36] is a locality in Taraclia District located at latitude 45.8774 longitude 28.5135 and altitude of 30 meters above sea level. This locality is under the administration of the Taraclia District.

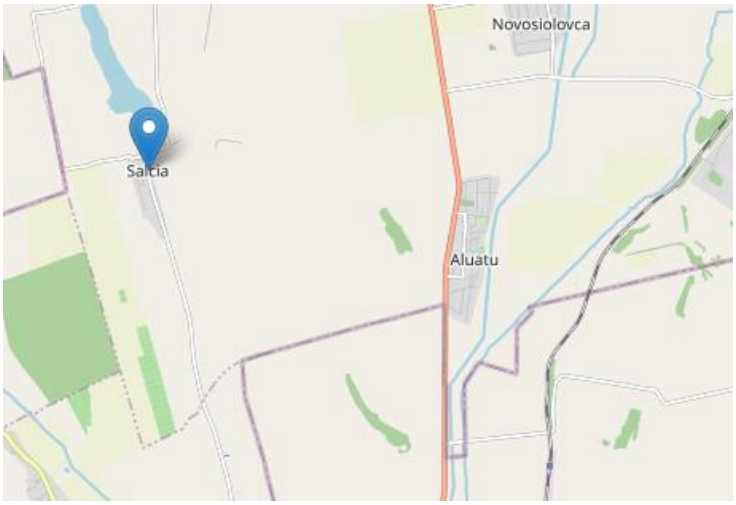


Figure 4-8: The location of the village Salcia, Taraclia District

Direct distance to Taraclia is 18 km. Direct distance to Chisinau is 117 km.

[36] https://raiontaraclia.md/primerii/

4.1.8 The village Musaitu

The village Musaitu[37] is a locality in Taraclia District located at latitude 45.8205 longitude 28.5049 and an altitude of 20 meters above sea level. This locality is under the administration of the Taraclia District.

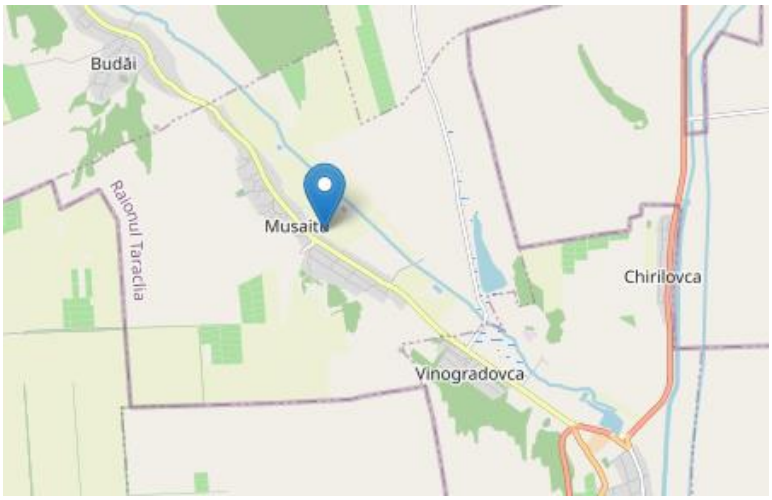
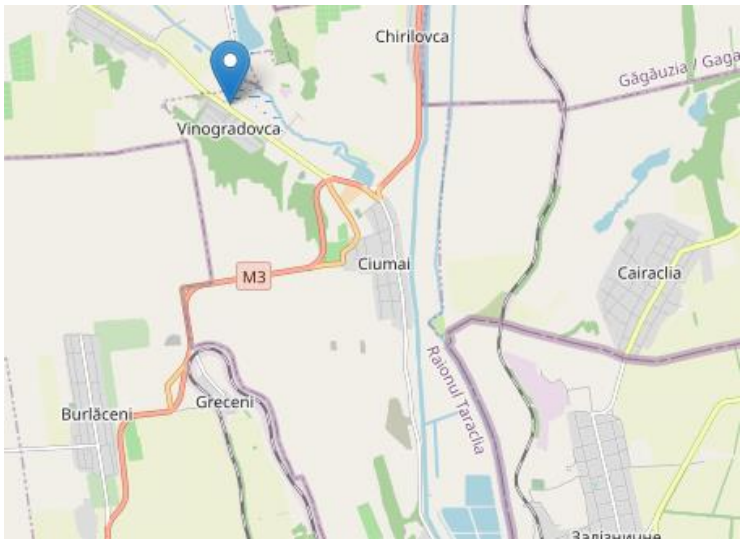


Figure 4-9: The location of the village Musaitu, Taraclia District

Direct distance to Taraclia is 21 km. Direct distance to Chisinau is 123 km.

4.1.9 The village Vinogradovca

The village of Vinogradovca[38] is a locality in Taraclia District located at latitude 45.8041 longitude 28.5347 and an altitude of 12 meters above sea level. This locality is under the administration of the Taraclia District.



[37] https://raiontaraclia.md/primerii/
[38] https://raiontaraclia.md/primerii/

Figure 4-10: The location of the village Vinogradovca, Taraclia District

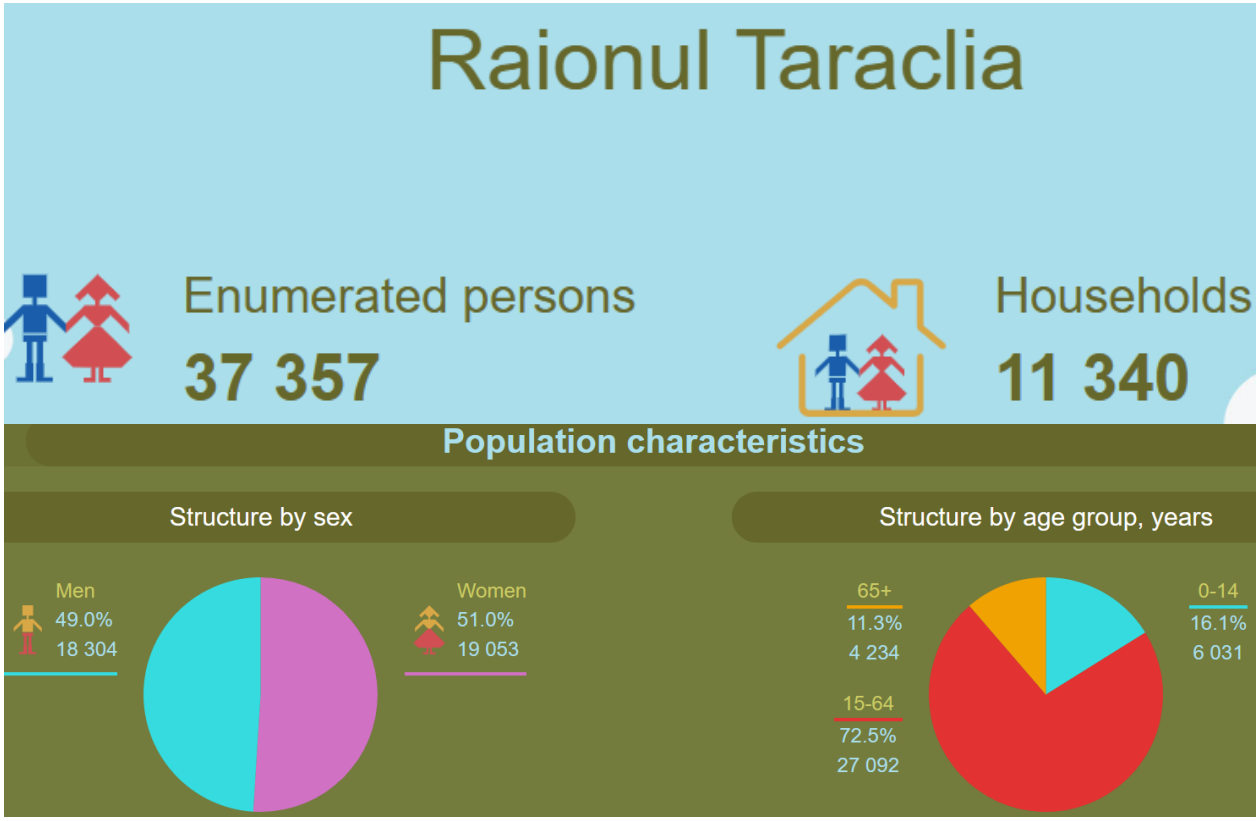
Direct distance to Taraclia is 18 km. Direct distance to Chisinau is 123 km.

4.2 Population and Demography

According to the census data of 1930, the county's population was 196,693, of which 51.2% were ethnic Romanians, 17.9% Gagauz, 14.5% Bulgarians, 7.5% Russians, 4.4% Germans, 2.3% Jews, as well as other minorities. From the religious point of view 92.1% of the population was Eastern Orthodox, 4.3% Lutheran, 2.3% Jewish, as well as other minorities.

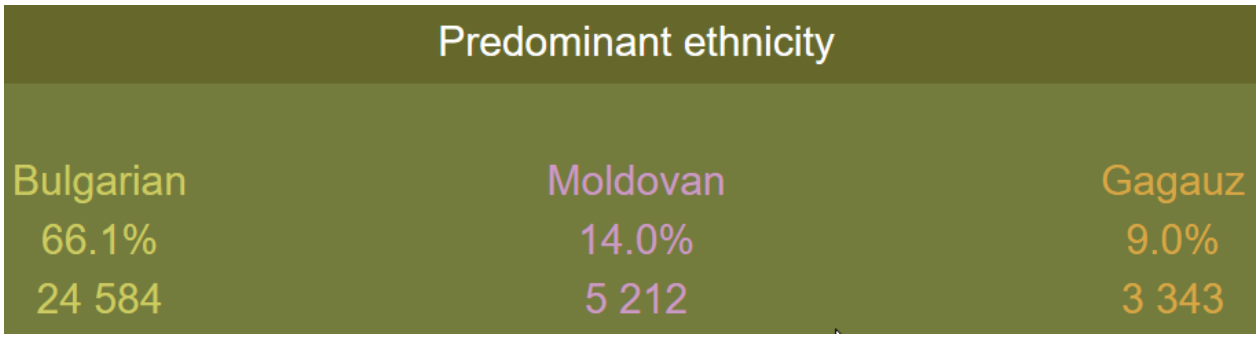
The name of the district now is Taraclia, but in the past[39], between 1999-2003 the district was part of the Lapusna County[40].

According to the socio-economic development strategy of the Taraclia district for 2021-2027 years[41], the Taraclia district[42] has 37357 inhabitants and 11340 households.

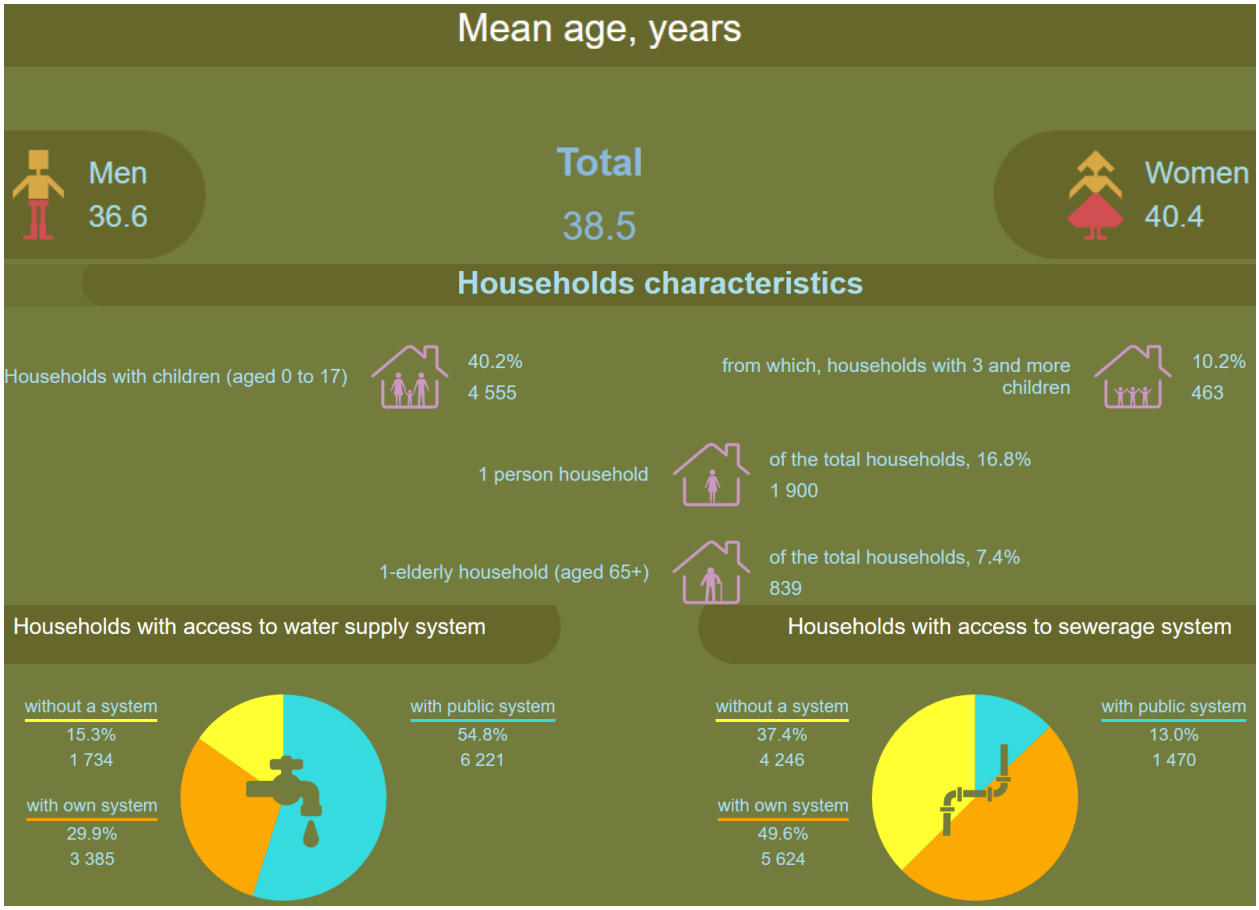


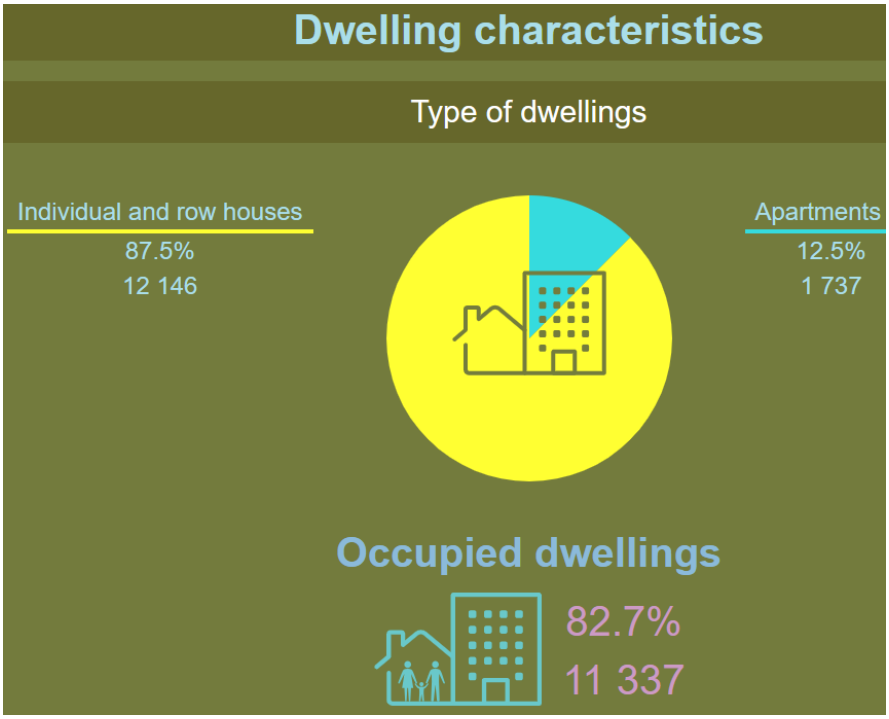
[39] Source: Law no. 764/2001 on the administrative-territorial organization of the Republic of Moldova https://www.legis.md/cautare/getResults?doc_id=138831&lang=ro#
[40] Source: https://ro.wikipedia.org/wiki/Jude%C8%9Bul_L%C4%83pu%C8%99na_(Republica_Moldova)
[41] Source: http://investin.raiontaraclia.md/
[42] Source: Generator de Infografice | Recensământ (statistica.md)

The age structure of the population in the Taraclia district is characterized according to the following indices:
- the population under working age – 6031 or 16.1 % of the total number of the population;
- the working-age population – 27092 people or 72.5 %;
- the population over the working age – 4234 people or 11.3 %.



The ethnic structure of the population in Taraclia district, according to the data from the 2014 Population and Housing Census, is as follows: 66.1 % - Bulgarians; 14.0 % - Moldovans; 9.0 % Gagauz and 10.9 % - Other ethnicities.





The share of the population of the Southern Development Region[43] constitutes 15% of the total population of the Republic of Moldova. Natural growth in the region registers a moderate rate of decrease, being the lowest level compared to other developing regions. The population density in the region is on average 75 people/km^2, being the lowest density compared to other developing regions.

The number of the economically active population constitutes approximately 60% of the total number of the population. Of these, more than half (about 60%) are employed in agriculture, 9% - in education, 8.7% - trade, 8.6% - industry, 4.9% - transport, 4.4% - health, 2.3% - constructions, etc. Comparing the situation in the region with the general situation in the country, it can be stated that the number of the population employed in agriculture in RDS is higher than the average for the country. Population density is 71 people/km^2 and degree of urbanization: 26%. Active population is 301.7 thousand people (60%).

More than one year ago, on February 24, 2022, Russia's full-scale war against Ukraine began. A year in which almost 750 thousand refugees crossed the border into the Republic of Moldova, of which over 100 thousand remained in the Republic of Moldova.

After February 2022, when start the aggression of Russian Federation in Ukraine a lot of people especially from Odessa Region came in the Republic of Moldova[44]. Because of war the refugees are hosted in the Taraclia municipality but also in the rayon villages[45]. More than 10 thousand of

[43] http://old.mdrc.gov.md/pageview.php?l=ro&idc=150&t=/Dezvoltare-regionala/Regiuni-de-dezvoltare/Regiunea-Sud
[44] Source: https://dopomoga.gov.md/
[45] Source: https://dopomoga.gov.md/refugee-accomodation-centre

refugees were hosted permanently or temporarily (transit to other regions or to EU) in Taraclia district in one year.

The provisional crisis management center in case of increased influxes of foreigners on the territory of the Republic of Moldova[46], suspended its activity in April, 2023 but can be activated whenever necessary. They were created in March-April 2022.

Actually, a lot support is available for refugees directly from state but also from donor organizations thru NGOs. One of the recent Project is "Support for refugee women and girl survivors of Gender-Based Violence".

The Taraclia Rayon Council and NGOs[47] will open a Women's Resilience Center and agreed to cooperate in order to ensure the durability and sustainability of the Women's Resilience Center for victims of domestic violence and gender-based violence in accordance with the legislation of the Republic of Moldova, the Istanbul Convention, as well as the best practices of European Union.

The Association against Domestic Violence "Casa Marioarei"[48] is a non-governmental, democratic, independent, non-political and non-religious association founded in 2000, in order to provide support to women and children survivors of domestic violence. In its activity, the Association focuses on three strategic pillars: Assistance, Prevention and Capacity Building.

The NGO Violence "Casa Marioarei" provides quality services (psychological, social, legal, medical assistance and shelter) to women and children survivors of domestic violence as well as advocates and promotes a world free of violence, with a healthy family environment, surrounded by love and harmony. The NGO is also a resource center for professionals and citizens in the field of preventing and combating gender-based violence.

Support for refugee women and girls surviving gender-based violence, NGO the Ophelia Women's Resilience Center in Moldova[49], as in many other countries in the region, due to a patriarchal society, women face various forms of discrimination and structural inequalities and are underrepresented in public spaces in various fields: political and economic participation; lower income and access to services; low standard of living and quality of life. Multiple crises (pandemic, energy, war and refugee crises) also disproportionately affect women. From losing jobs/income being primary caregivers for children in pandemics, to being exposed to greater risks of gender-based violence, trafficking and poverty during war and the refugee crisis. The NGO maintains the focus on humanitarian support, respecting human dignity and building intervention plans regarding socio-economic inclusion, addressing specific needs, providing medium and long-term psychological support and creating spaces and opportunities for personal and professional growth.

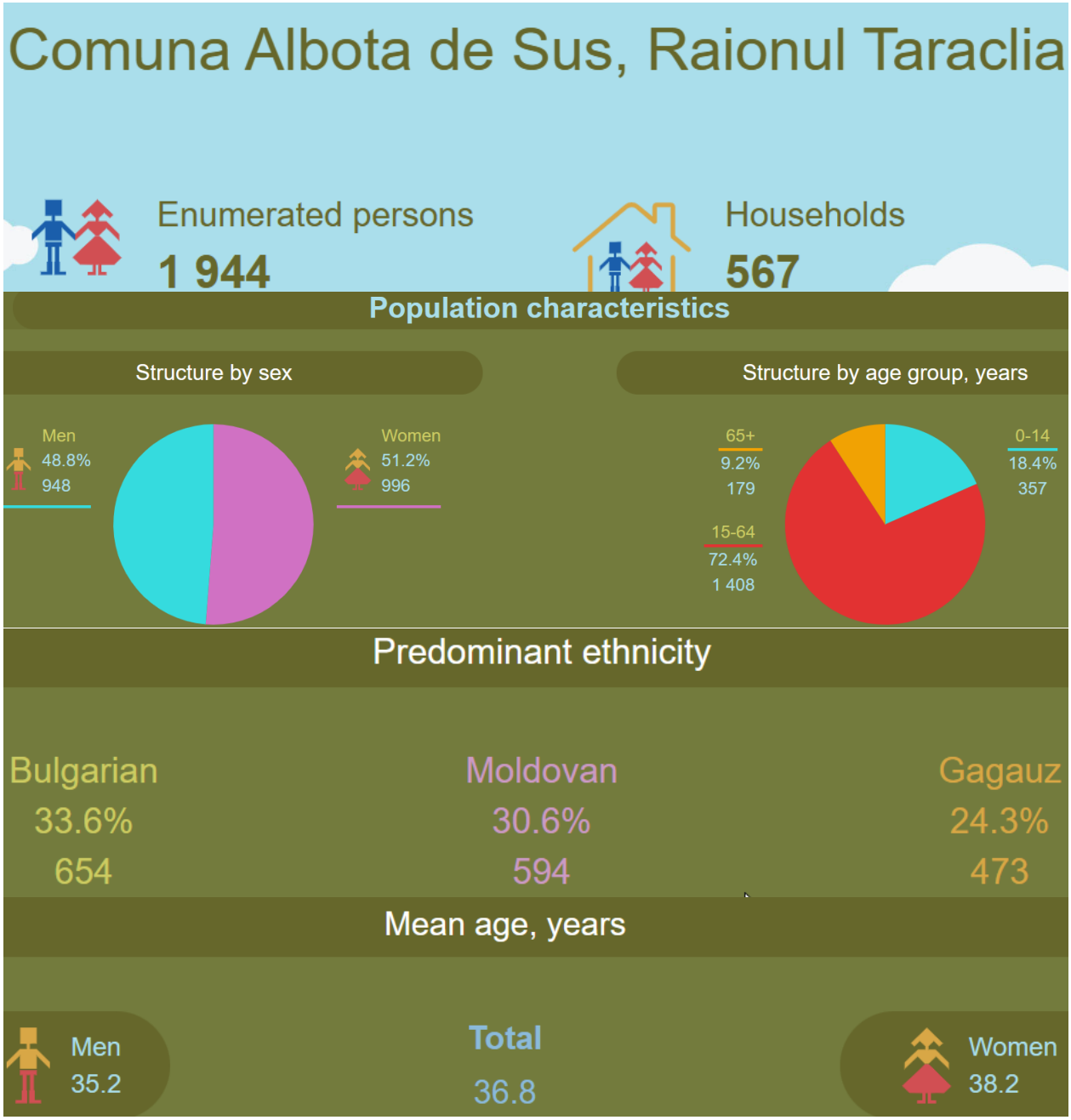
The Ophelia Women's Resilience Center in Moldova plans to open 3 centers in the South, Central and North regions of the Republic of Moldova, within the Project "Support to refugee women and girls surviving Gender-Based Violence", financed by the UN Women in collaboration with the

[46] Source: https://www.unhcr.org/md/en
[47] Source: https://raiontaraclia.md/ro/comisii-specializate/
[48] Source: https://antiviolenta.md/en/home-en/
[49] Source: https://ophelia.md/en/support-for-refugee-women-and-girls-surviving-gender-based-violence/

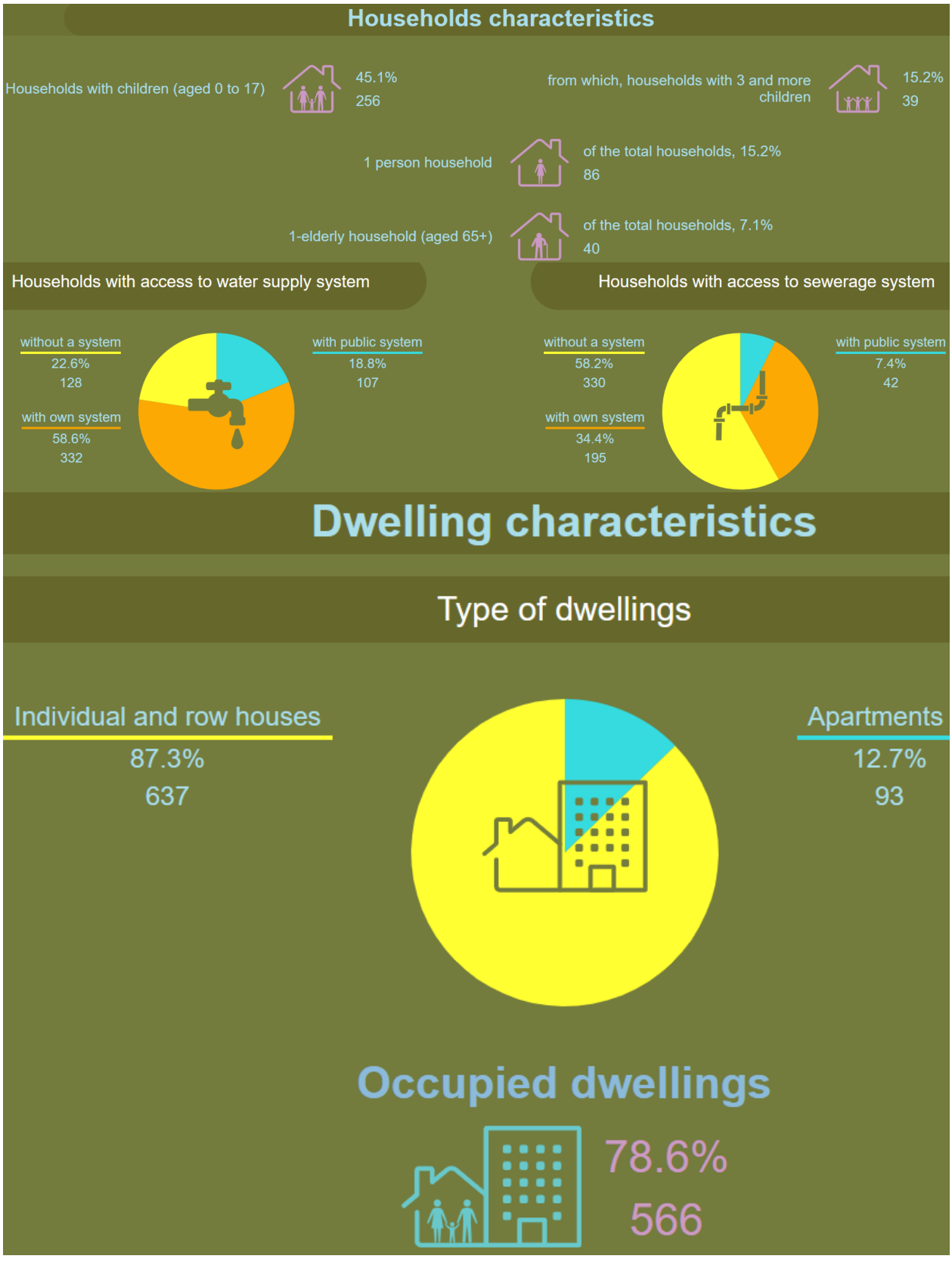
Embassy of the United States of America, and implemented by the Ophelia Public Association in partnership with the Dacia Youth Resource Center, the National Coalition "Life without Violence", the Help Public Association.

4.2.1 Population and Demography in the village Albota de Sus

According to the 2014 census data, the village Albota de Sus[50] has a population of 1944 inhabitants and 567 households.



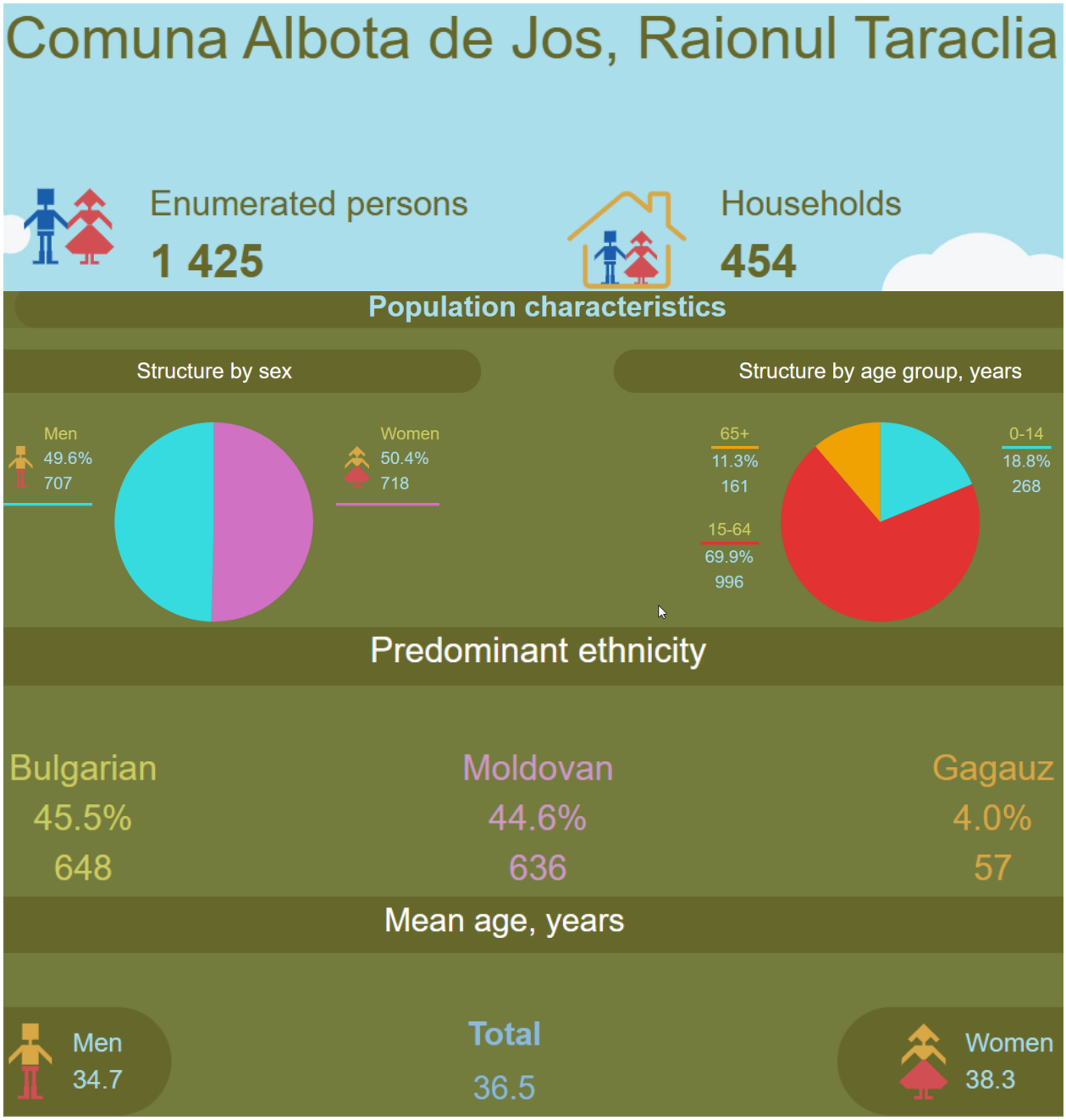
[50] Source: Generator de Infografice | Recensământ (statistica.md)


Households characteristics
Households with children (aged 0 to 17)
45.1%
256
from which, households with 3 and more children
15.2%
39
1 person household
of the total households, 15.2%
86
1-elderly household (aged 65+)
of the total households, 7.1%
40
Households with access to water supply system
without a system
22.6%
128
with own system
58.6%
332
with public system
18.8%
107
Households with access to sewerage system
without a system
58.2%
330
with own system
34.4%
195
with public system
7.4%
42
Dwelling characteristics
Type of dwellings
Individual and row houses
87.3%
637
Apartments
12.7%
93
Occupied dwellings
78.6%
566

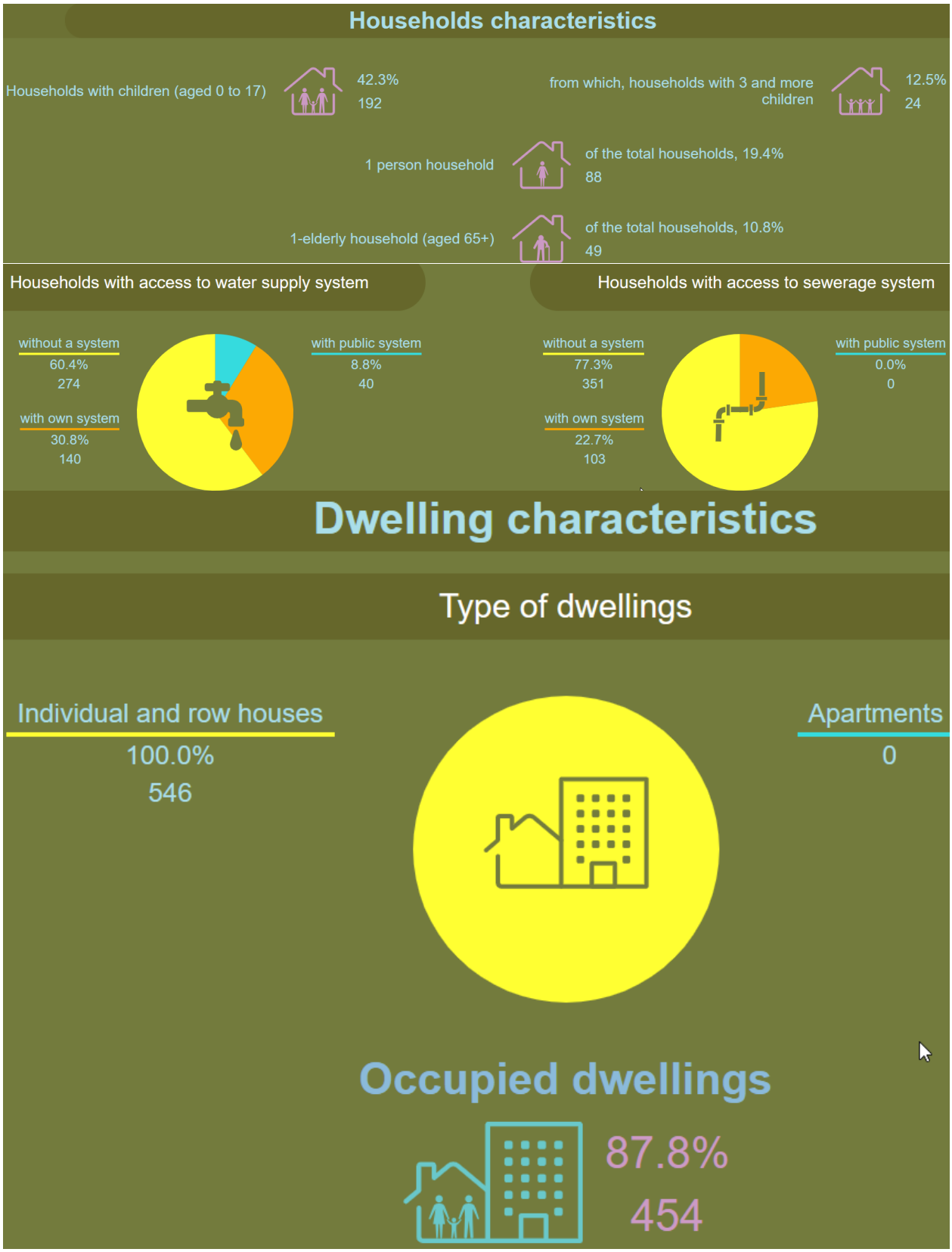
The working population: men and women (15-64 years) is 1408 or 72.4 %. Population over working age (pensioners), of which 65+ years and older – 179 or 9.2 %.

4.2.2 Population and Demography in the village Albota de Jos

According to the 2014 census data[51], the village Albota de Jos is a small village with a population of 1425 inhabitants and 454 households.



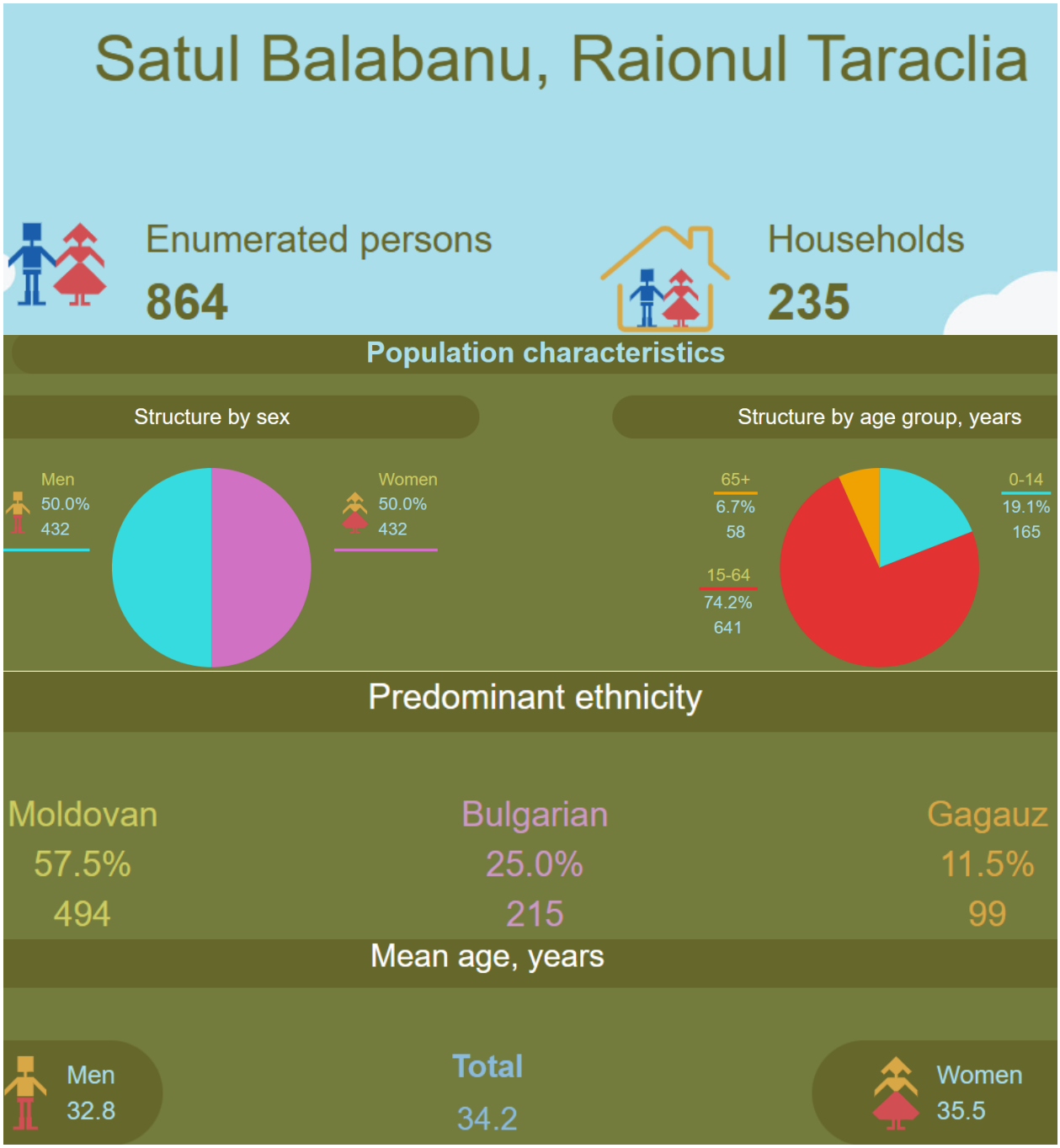
[51] Source: Generator de Infografice | Recensământ (statistica.md)


Households characteristics
Households with children (aged 0 to 17)
42.3%
192
from which, households with 3 and more children
12.5%
24
1 person household
of the total households, 19.4%
88
1-elderly household (aged 65+)
of the total households, 10.8%
49
Households with access to water supply system
without a system
60.4%
274
with own system
30.8%
140
with public system
8.8%
40
Households with access to sewerage system
without a system
77.3%
351
with own system
22.7%
103
with public system
0.0%
0
Dwelling characteristics
Type of dwellings
Individual and row houses
100.0%
546
Apartments
0
Occupied dwellings
87.8%
454

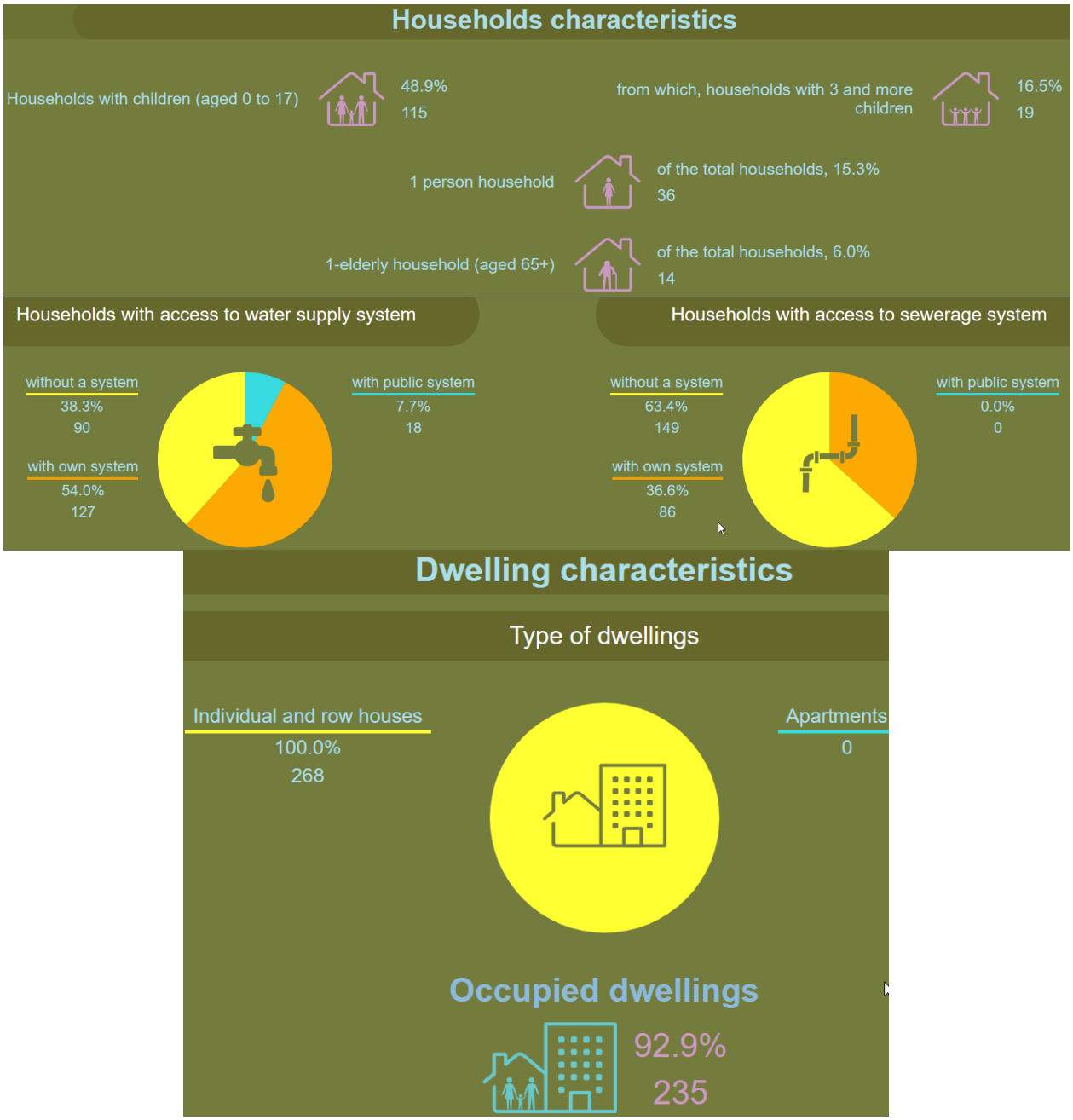
The working population: men and women (15-64 years) is 996 or 69.9 %. Population over working age (pensioners), of which 65+ years and older – 161 or 11.3 %.

4.2.3 Population and Demography in the village Balabanu

According to the 2014 census data, the village Balabanu[52] is a small village with a population of 864 inhabitants and 235 households.



[52] Source: Generator de Infografice | Recensământ (statistica.md)

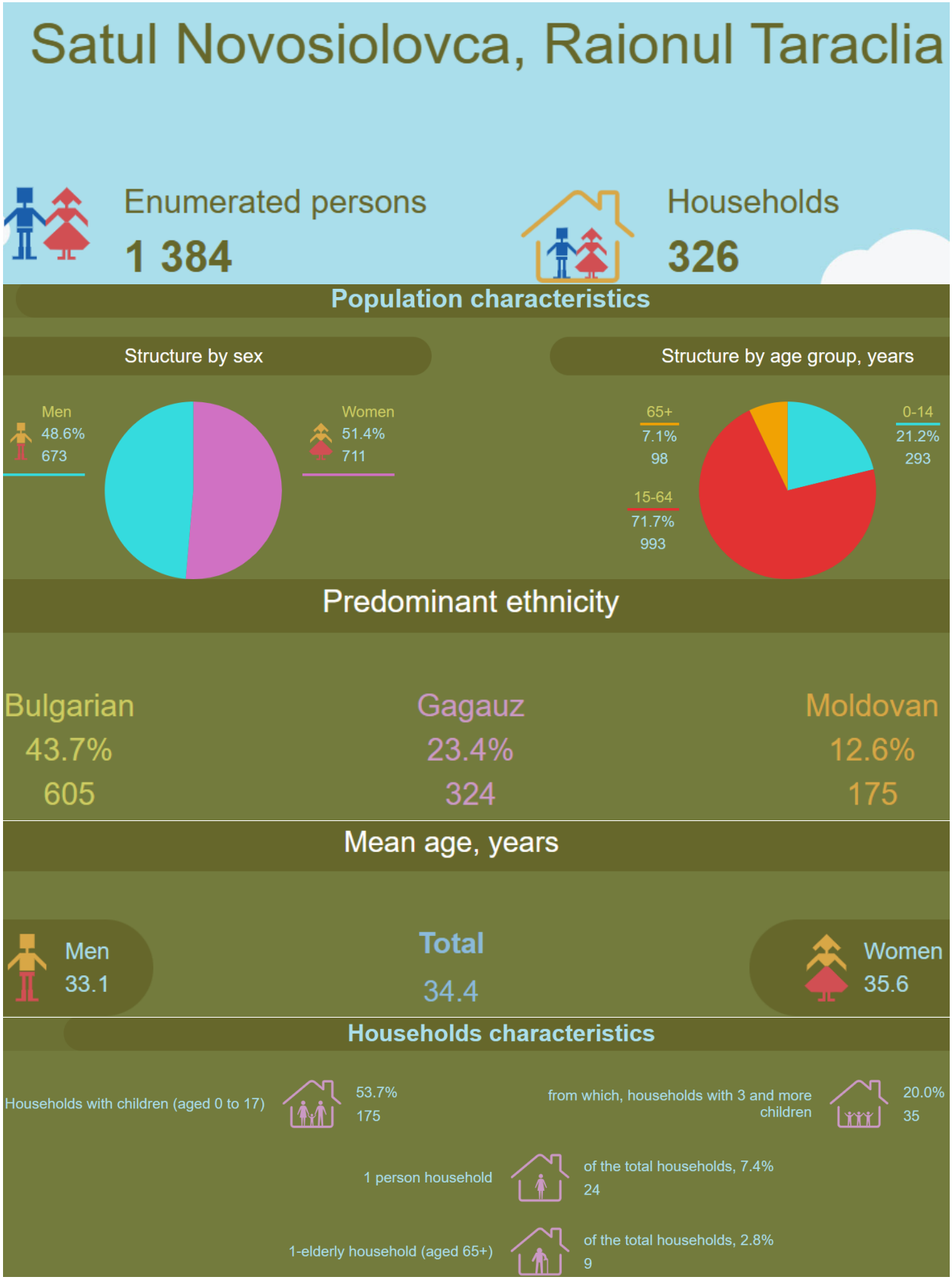


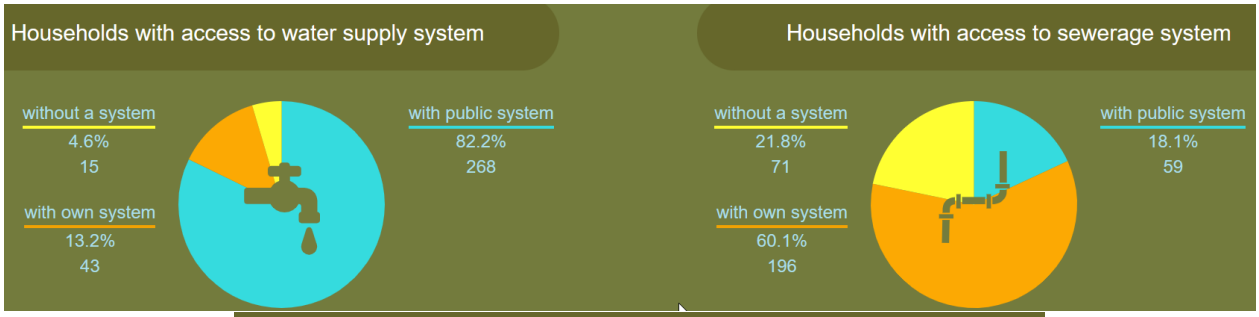
The working population: men and women (15-64 years) is 641 or 74.2 %. Population over working age (pensioners), of which 65+ years and older – 58 or 6.7 %.

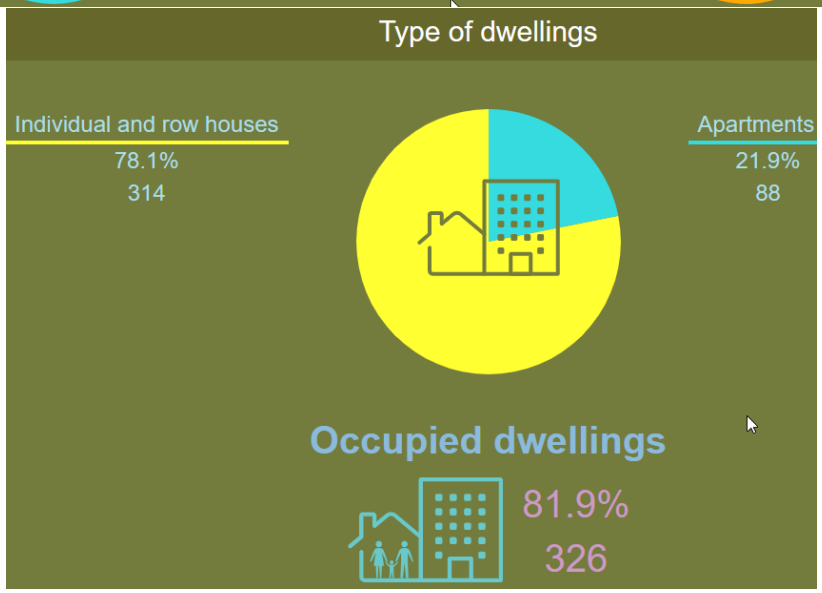
4.2.4 Population and Demography in the village Novosiolovca

According to the 2014 census data, the village Novosiolovca[53] has the population of 1384 inhabitants and 326 households.

[53] Source: Generator de Infografice | Recensământ (statistica.md)


Satul Novosiolovca, Raionul Taraclia
Enumerated persons
1 384
Households
326
Population characteristics
Structure by sex
Men
48.6%
673
Women
51.4%
711
Structure by age group, years
65+
7.1%
98
15-64
71.7%
993
0-14
21.2%
293
Predominant ethnicity
Bulgarian
43.7%
605
Gagauz
23.4%
324
Moldovan
12.6%
175
Mean age, years
Men
33.1
Total
34.4
Women
35.6
Households characteristics
Households with children (aged 0 to 17)
53.7%
175
from which, households with 3 and more children
20.0%
35
1 person household
of the total households, 7.4%
24
1-elderly household (aged 65+)
of the total households, 2.8%
9

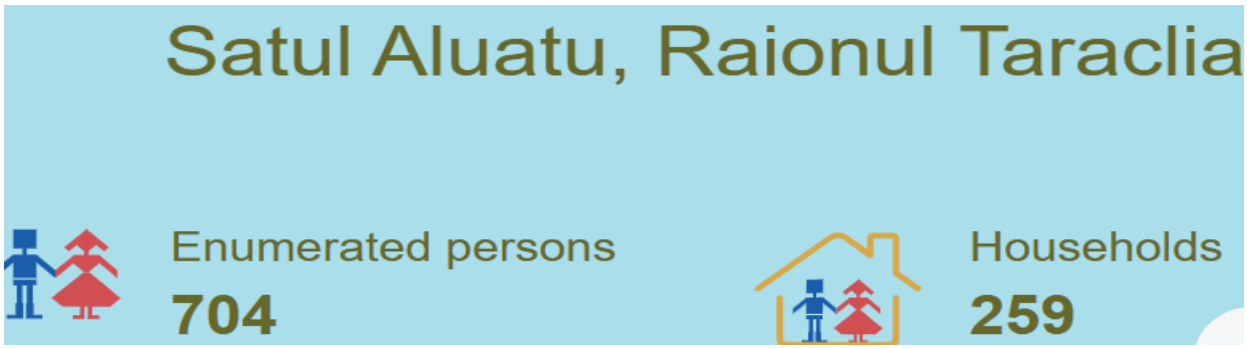




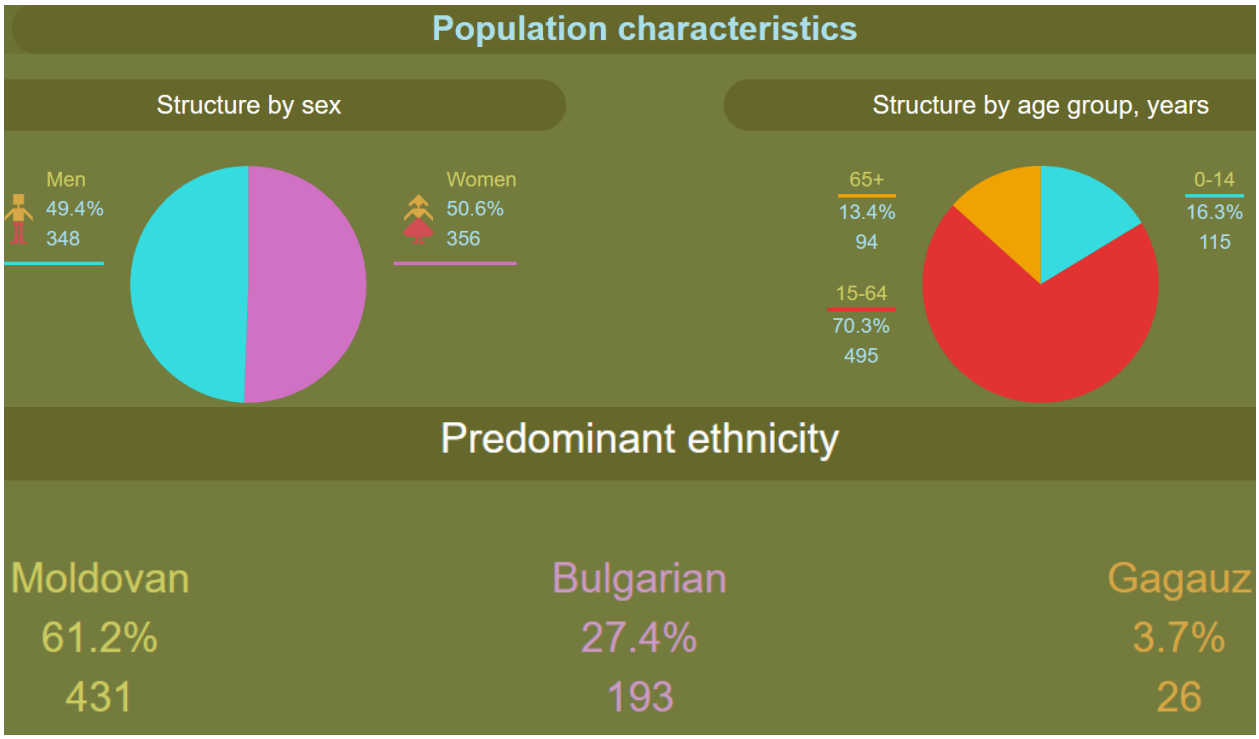
The working population: men and women (15-64 years) is 993 or 71.7 %. Population over working age (pensioners), of which 65+ years and older – 98 or 7.1 %.

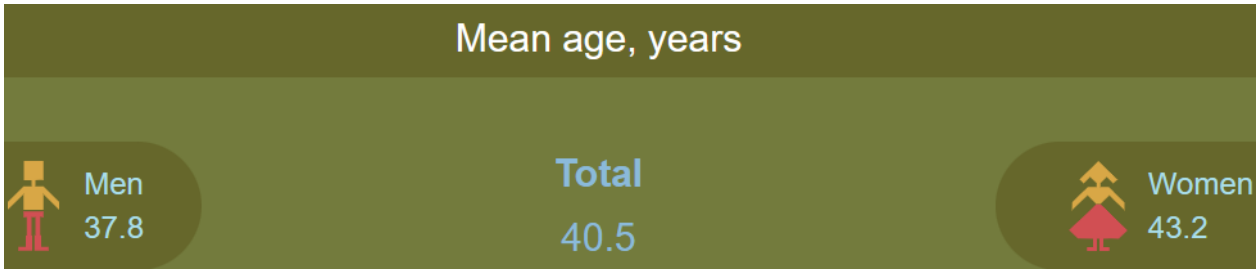
4.2.5 Population and Demography in the village Aluatu

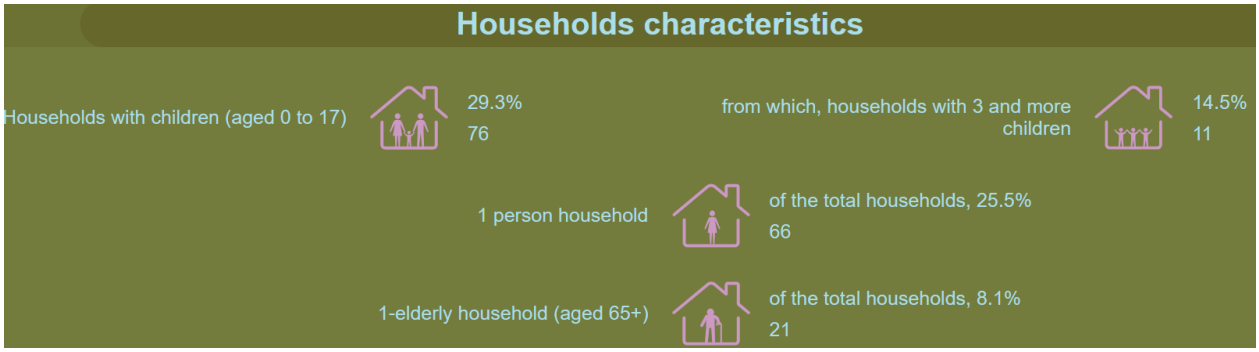
According to the 2014 census data, the village Aluatu[54] has the population of 704 inhabitants and 259 households.

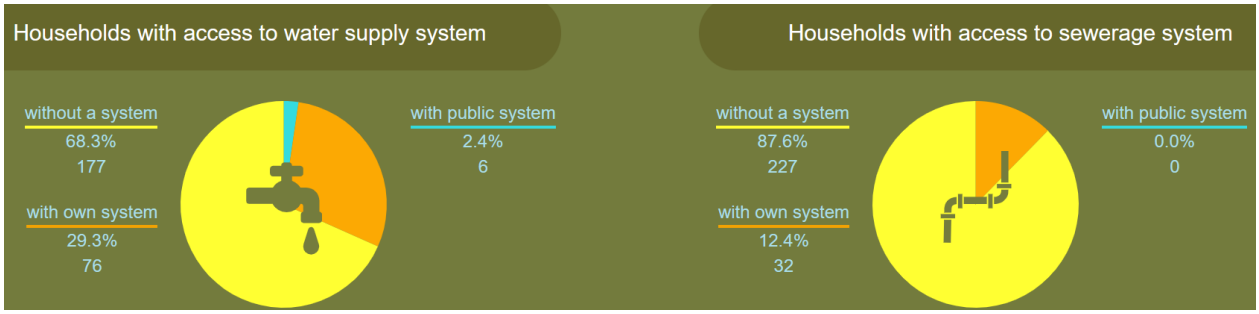


[54] Source: Generator de Infografice | Recensământ (statistica.md)


Population characteristics
Structure by sex
Men
49.4%
348
Women
50.6%
356
Structure by age group, years
65+
13.4%
94
15-64
70.3%
495
0-14
16.3%
115
Predominant ethnicity
Moldovan
61.2%
431
Bulgarian
27.4%
193
Gagauz
3.7%
26


Mean age, years
Men
37.8
Total
40.5
Women
43.2

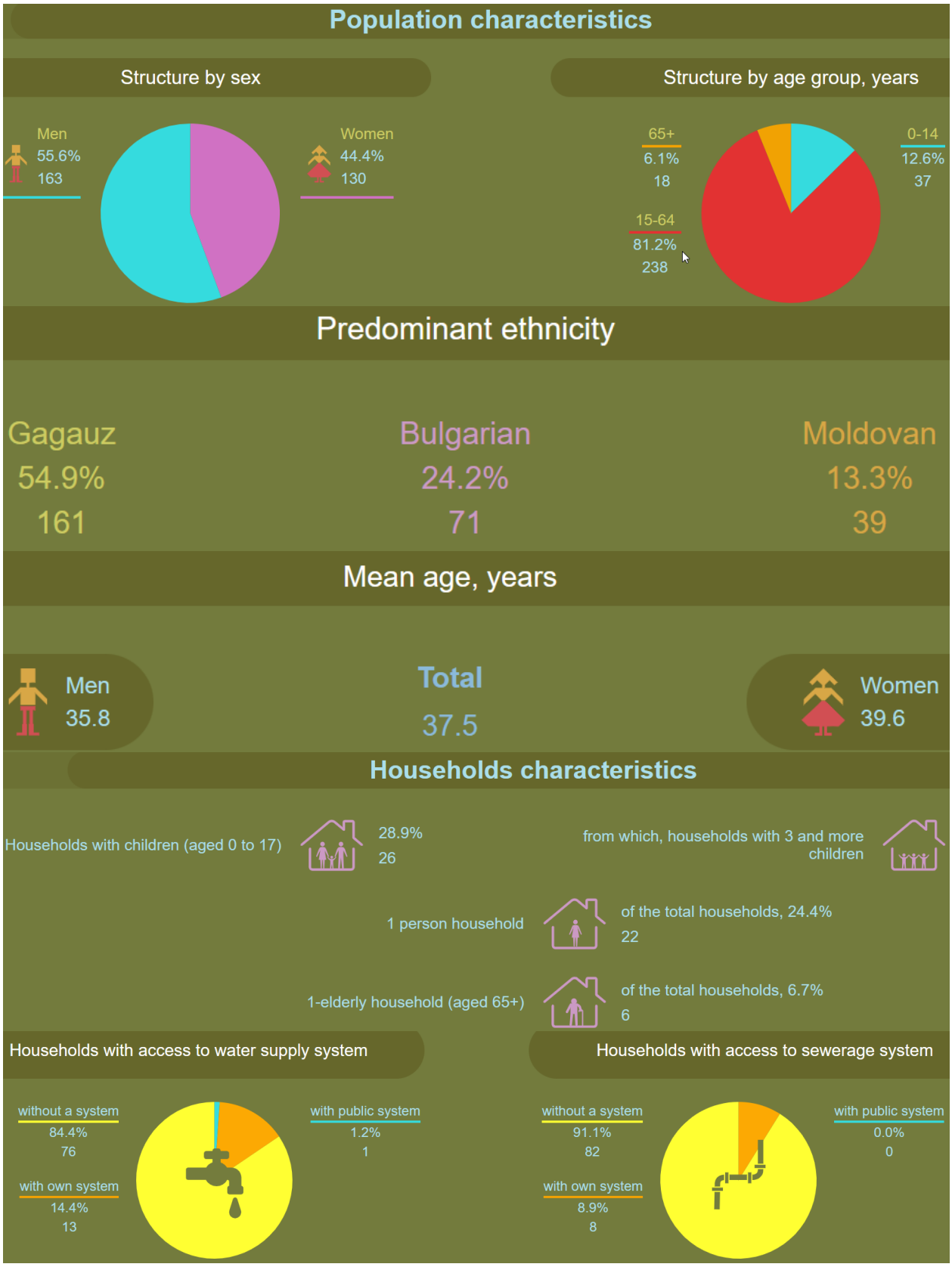

Households characteristics
Households with children (aged 0 to 17)
29.3%
76
from which, households with 3 and more children
14.5%
11
1 person household
of the total households, 25.5%
66
1-elderly household (aged 65+)
of the total households, 8.1%
21

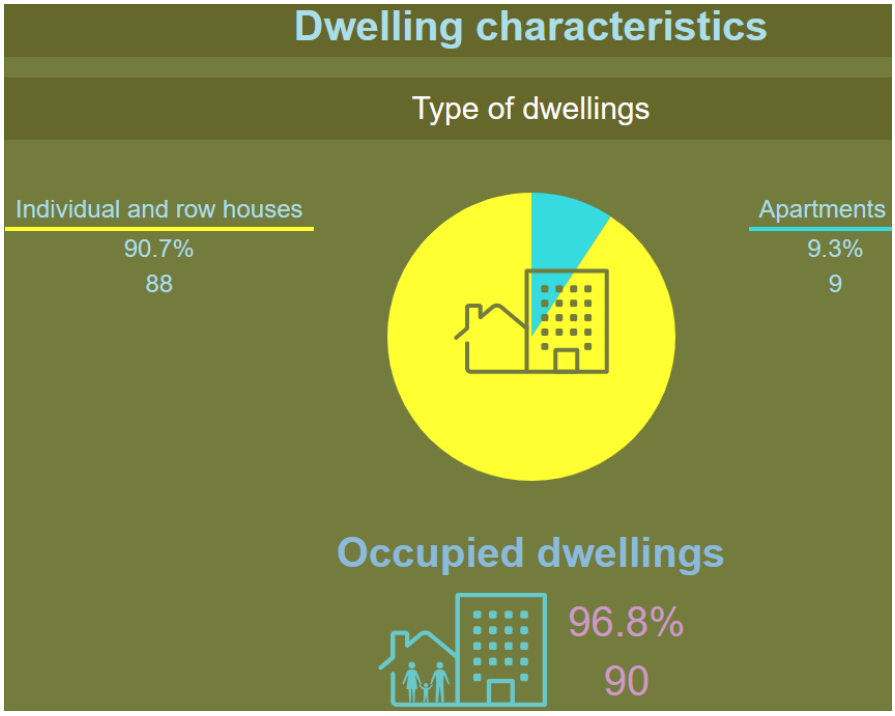


4.2.6 Population and Demography in the village Salcia

According to the 2014 census data, the village Salcia[55] has the population of 293 inhabitants and 90 households.

[55] Source: Generator de Infografice | Recensământ (statistica.md)

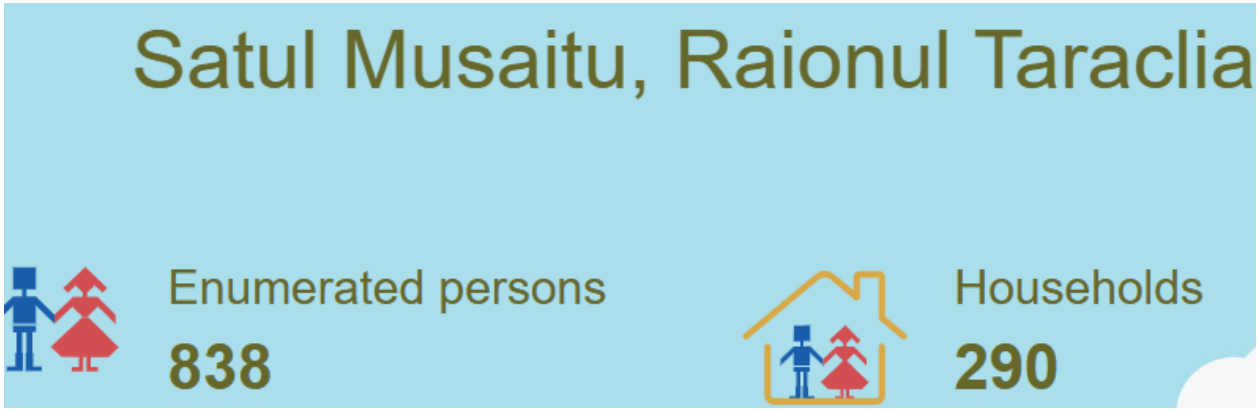

Population characteristics
Structure by sex
Men
55.6%
163
Women
44.4%
130
Structure by age group, years
65+
6.1%
18
15-64
81.2%
238
0-14
12.6%
37
Predominant ethnicity
Gagauz
54.9%
161
Bulgarian
24.2%
71
Moldovan
13.3%
39
Mean age, years
Men
35.8
Total
37.5
Women
39.6
Households characteristics
Households with children (aged 0 to 17)
28.9%
26
from which, households with 3 and more children
1 person household
of the total households, 24.4%
22
1-elderly household (aged 65+)
of the total households, 6.7%
6
Households with access to water supply system
without a system
84.4%
76
with own system
14.4%
13
with public system
1.2%
1
Households with access to sewerage system
without a system
91.1%
82
with own system
8.9%
8
with public system
0.0%
0



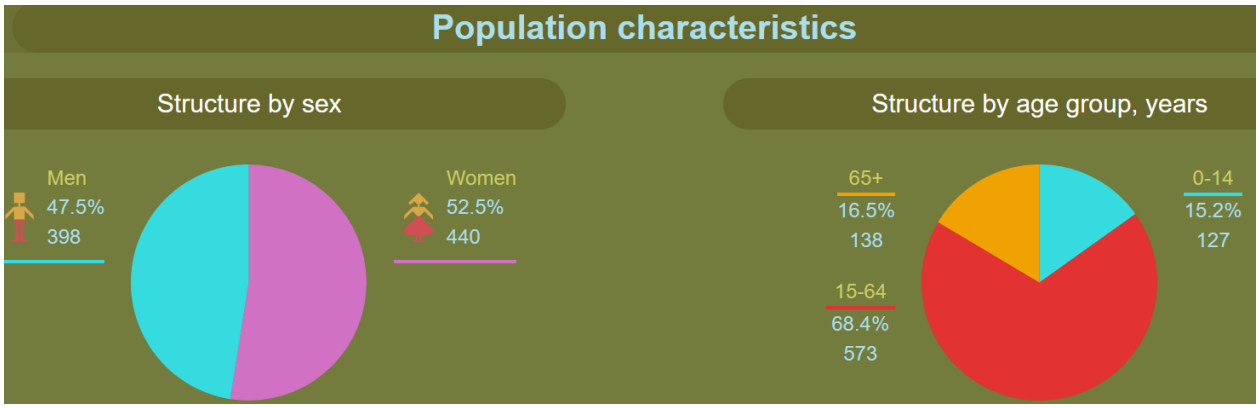
The working population: men and women (15-64 years) is 238 or 81.2 %. Population over working age (pensioners), of which 65+ years and older – 18 or 6.1 %.

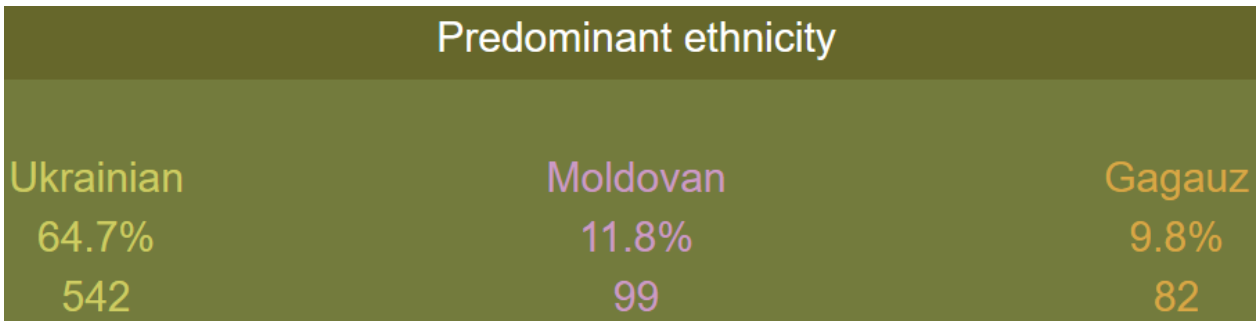
4.2.7 Population and Demography in the village Musaitu

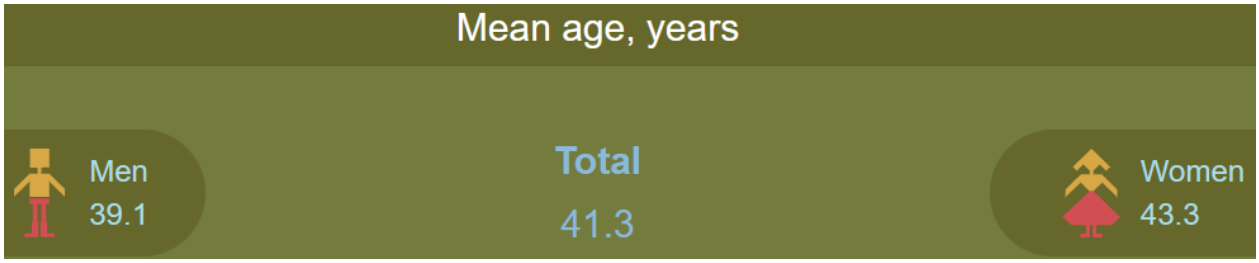
According to the 2014 census data, the village Musaitu[56] has the population of 838 inhabitants and 290 households.

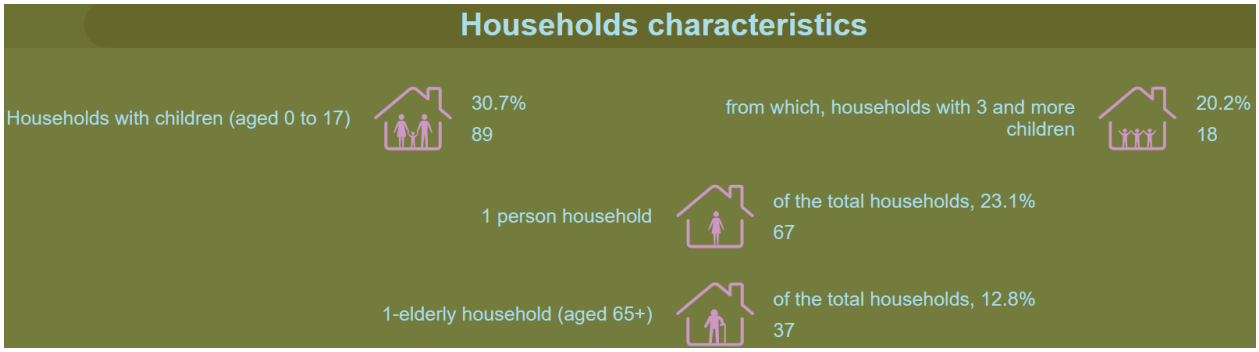


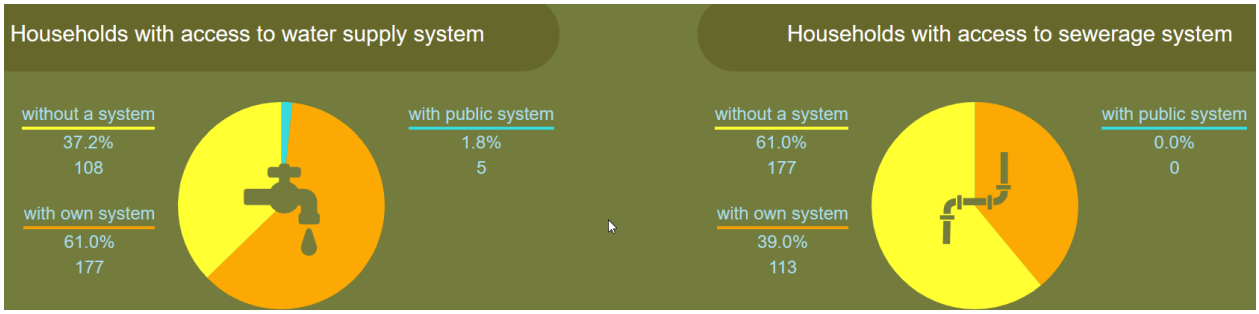
[56] Source: Generator de Infografice | Recensământ (statistica.md)

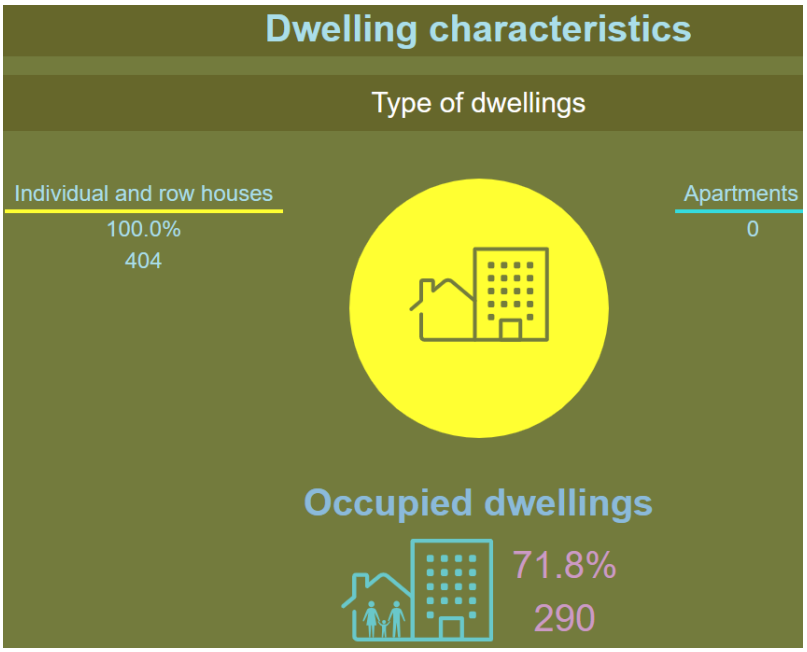

Population characteristics
Structure by sex
Men
47.5%
398
Women
52.5%
440
Structure by age group, years
65+
16.5%
138
15-64
68.4%
573
0-14
15.2%
127


Predominant ethnicity
Ukrainian
64.7%
542
Moldovan
11.8%
99
Gagauz
9.8%
82


Mean age, years
Men
39.1
Total
41.3
Women
43.3


Households characteristics
Households with children (aged 0 to 17)
30.7%
89
from which, households with 3 and more children
20.2%
18
1 person household
of the total households, 23.1%
67
1-elderly household (aged 65+)
of the total households, 12.8%
37



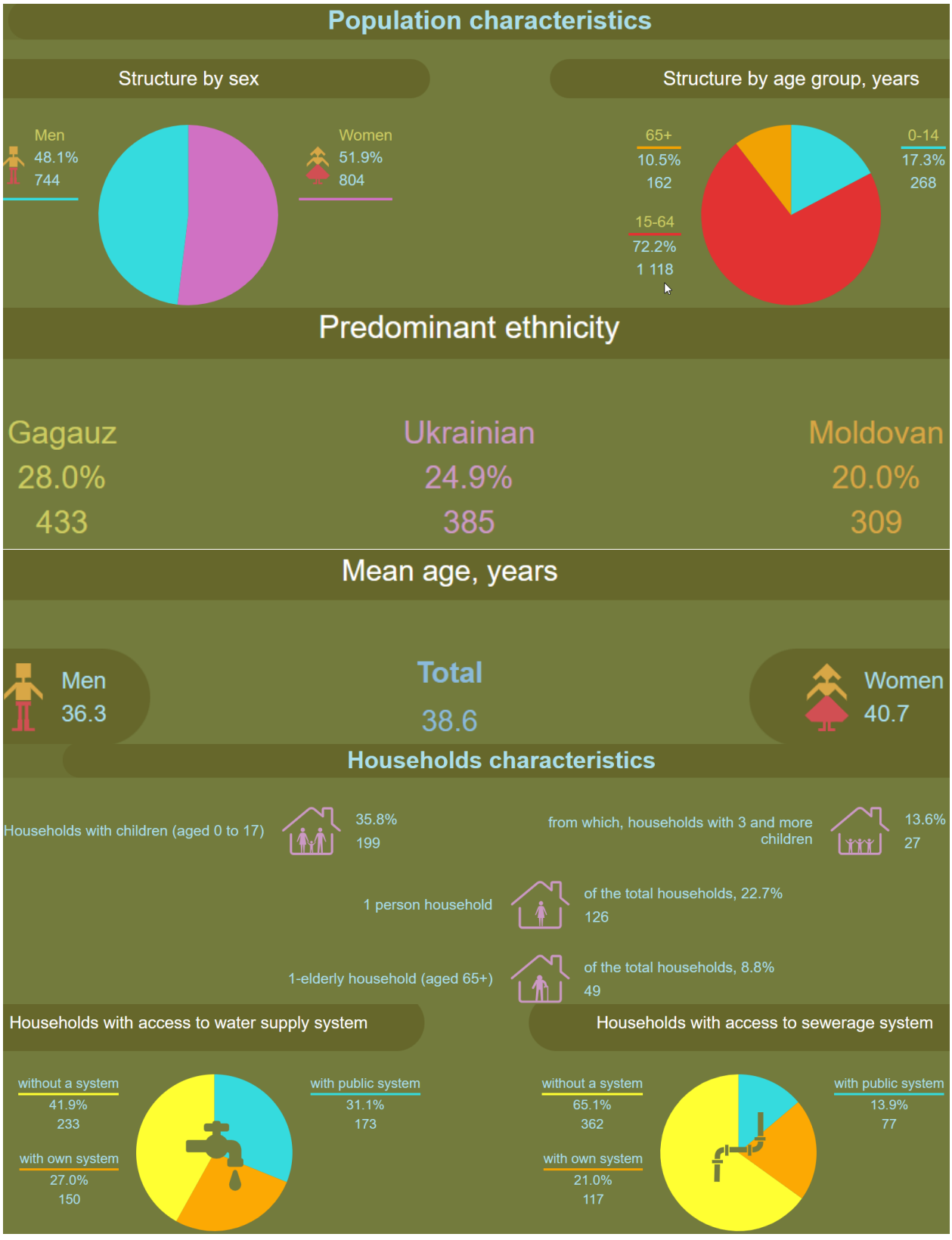


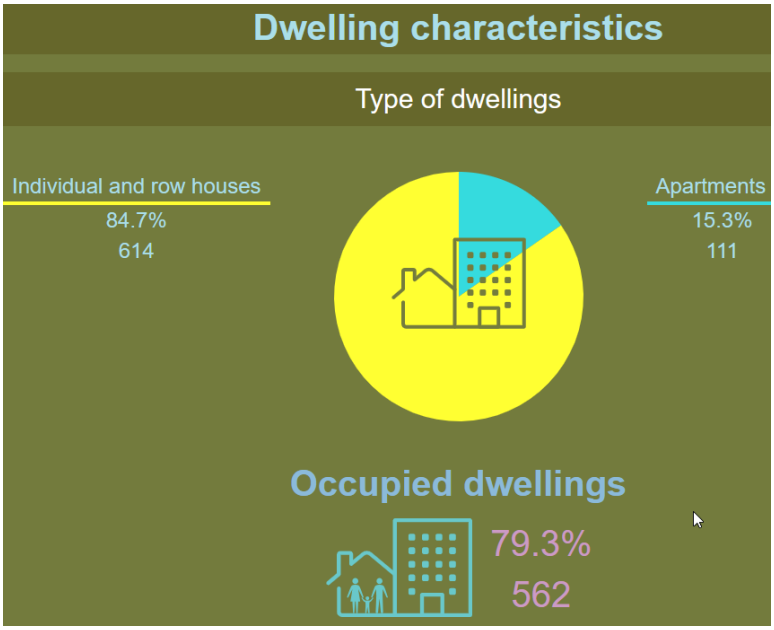
The working population: men and women (15-64 years) is 573 or 68.4 %. Population over working age (pensioners), of which 65+ years and older – 138 or 16.5 %.

4.2.8 Population and Demography in the village Vinogradovca

According to the 2014 census data, the village Vinogradovca[57] has the population of 1548 inhabitants and 556 households.

[57] Source: Generator de Infografice | Recensământ (statistica.md)


Population characteristics
Structure by sex
Men
48.1%
744
Women
51.9%
804
Structure by age group, years
65+
10.5%
162
15-64
72.2%
1 118
0-14
17.3%
268
Predominant ethnicity
Gagauz
28.0%
433
Ukrainian
24.9%
385
Moldovan
20.0%
309
Mean age, years
Men
36.3
Total
38.6
Women
40.7
Households characteristics
Households with children (aged 0 to 17)
35.8%
199
from which, households with 3 and more children
13.6%
27
1 person household
of the total households, 22.7%
126
1-elderly household (aged 65+)
of the total households, 8.8%
49
Households with access to water supply system
without a system
41.9%
233
with own system
27.0%
150
with public system
31.1%
173
Households with access to sewerage system
without a system
65.1%
362
with own system
21.0%
117
with public system
13.9%
77



The working population: men and women (15-64 years) is 1118 or 72.2 %. Population over working age (pensioners), of which 65+ years and older – 162 or 10.5 %.

4.3 Occupation, Income and Expenditure

Agriculture[58] remains one of the sectors of the economy with a labor force unemployment rate of over 36%, the first being held by the services sector (48%). The main agricultural products are grapes, cereals, technical crops and fruit trees. The existing infrastructure for collecting agricultural products is not functional and their export is carried out with difficulty due to technical barriers.
The south development region accounts for about 30 percent of the country's total production of cereals of the first group and of corn. 23% of all the production of sunflowers belongs to the south development region. The most important agricultural crop are grapes (58% of the entire volume in the country). Through the increased potential of grape production, the climatic conditions favorable to the growth of this culture, the presence in the region of 54 grape processing, wine production and bottling factories, the presence of a developed railway system and the Giurgiulesti international port, RDS can become the center of production and export of quality wines.

The relatively low standard of living in Moldova is present throughout the country (except the municipality of Chisinau). Thus, 1/3 of the population in the regions lives below the level of absolute poverty, 1/5 – in relative poverty, and 4-6% – in extreme conditions. The level of deprivation by domain shows that the access to education and medical assistance of the localities in the south development region is medium compared to the Center and North Regions. At the same time, the level of economic deprivation in the RDS is clearly higher compared to the two regions.

[58] Source: http://adrsud.md/pageview.php?l=ro&idc=372

In the structure of consumption expenses, food (46%) and non-food (21%) expenses prevail, with services accounting for 33%. We will mention the low share of health expenses (6.7% of the total) and especially for education - only 1%.

4.4 Access to Infrastructure faculties

The Southern Development Region has a developed, extensive and diversified network of intra- and interregional roads and access roads. The RDS road infrastructure plays an important role in the context of the development prospects and ensuring the access of the Republic of Moldova to the countries of the Black Sea basin. The total length of public roads in the RDS constitutes 22.3% of the total length in the country. Of these, 23.8% are national roads with rigid surface and 21.5% are local roads, of which 20% are with rigid surface. In the region there are road arteries that connect all the urban centers.

The share of public utility infrastructure in RDS is below the average for the country and some developing regions in the Republic of Moldova. In general, cities have the infrastructure of public utilities to a greater extent compared to rural localities. The differences are expressed at the level of water supply, sewage, roads, natural gas, etc.

The gas supply network in the region expands every year, but compared to the national rate, the regional indices are low. In 2005, the share of housing stock equipped with natural gas was 34.22%. The highest level is recorded in Taraclia district (84.2%), and the lowest in Leova district (2.8%).

The share of sewage installations in the region covers only 12.8%, even some large localities, such as town Cainari, they don't have these systems.

The share of the housing fund connected to: (i) natural gas (34.22%), (ii) Aqueduct - (44.5%), (iii) Sewage installations - 12.8%, (iv)

Transport: car, railway; in perspective: air, naval
Volume of transported loads - 0.1 tons/person

4.5 Gender and Social Divisions (Status of Women and their role in local development)

Rural women are key agents for development. They play a catalytic role towards achievement of transformational economic, environmental and social changes required for sustainable development. But limited access to credit, health care and education are among the many challenges they face. These are further aggravated by the global food and economic crises and climate change. Empowering them is essential, not only for the well-being of individuals, families and rural communities, but also for overall economic productivity, given women’s large presence in the agricultural workforce worldwide.

In 2021, Moldova is ranked 28th out of 156 countries, making a small improvement in the last two years in terms of the Global Gender Gap. During the past 15 years, the relative modification for all 4 analysed indicators has a positive value; i.e. for the economy participation and opportunity at

0.051, for education attainment at 0.002, for health and survival at null and for political empowerment at 0.169.

With the Gender Inequality Index[59] (a composite measure reflecting inequality in achievement between women and men in three dimensions: reproductive health, empowerment and labour market) Moldova was ranked 46th in the world in 2019, due to the following achievements:

- Maternal mortality ratio (SDG 3.1) – 19 deaths per 100,000 live births;
- Adolescent birth rate (SDG 3.7) – 22,4 births per 1,000 women aged 15–19;
- Share of seats in parliament – 25,7% held by women;
- Population with at least some secondary education (SDG 4.4): Female – 96,6% aged 25 and older, Male – 98,1% aged 25 and older;
- Labour force participation rate: Female – 40,5% ages 15 and older, Male – 46% ages 15 and older.

The ability of countries to provide a high level of well-being for their citizens is assessed in the Global Competitiveness Reports, which ranks countries based on the Global Competitiveness Index (GCI). During the last three years, Moldova has been ranked 86th - 88th scoring from 54,6 to 56,7 points for the GCI (100 points being the best value).

As to the poverty specific gender-sensitive indicators, according to the UN Women statistical data, the proportion of population living below the national poverty line is at 9,6%. 100% of the population (both women and men) with severe disabilities receive disability cash benefits and 100% of mothers with newborns receive maternity cash benefits. For the population above statutory pensionable age, there are 100% of men and 46,1% of women that receive a pension, the average proportion per whole country being equal to 75,2%. Only 10,5% of unemployed persons receive unemployment cash benefits, with no available sex disaggregated data. In 2019, the level of poverty among women was 25.6%, and among men 24.8%. At the same time, the poverty rate among female-headed households is higher than in male-headed households. Thus, the level of poverty in female-headed households was 26.6%, or 2.0 pp more than in male-headed households. Women's poverty, economic opportunities for women related to employment and income generation opportunities are areas of interest in promoting equality between women and men. In the case of women living in rural areas in Moldova, the disadvantages in this respect are especially visible. In general, in the Republic of Moldova, poverty is more pronounced in rural, than in urban areas, and the absolute poverty rate among women is 15.6% in rural areas in comparison to only 4.8% among women from urban areas. In recent years a steady reduction of poverty has been observed and, along with its reduction, a reduction of the gap between rates of poverty in villages and cities can be observed. For women, the difference between the poverty rates by residence areas in 2010 was 18.3 percentage points, dropping to 10.8 percentage points in 2014.

There is a good participation is of women in administration of the Taraclia District and LPAs in the Project area. From two LPAs, many of them a managed by elected women.

According to the Central Electoral Commission[60] in the Taraclia District Council and villages affected by Project Statistical data are:

[59] Country Gender Profile: https://www.eeas.europa.eu/sites/default/files/country_gender_profile.pdf
[60] Source: https://a.cec.md/ro/componenta-comisiei-2800.html

Table 4-1: Mandate holders in the Taraclia District[61] Council and LPAs Councils from the Taraclia District[62]

District/Locals Council	Total members	Women	Men
Taraclia[63]	27	9 or 33.3 %	18 or 66.7 %
Albota de Sus	11		-
Albota de Jos	9	-	-
Balabanu	9	-	-
Novosiolovca	9	-	-
Aluatu	9	-	-
Salcia	9	-	-
Musaitu	9	-	-
Vinogradovca	11	-	-

The role of women is essential in every locality at the making decision level and it is increasing on every election cycling.

Also, most of the head of NGOs in the Taraclia District are women. There are many NGOs in the Taraclia District[64]. There is no official statistics about nongovernmental members involved but most active NGOs are headed by women especially on protection of human rights, gender, social protection, youth. The list of available NGOs in the Republic of Moldova is presented in the footnote[65].

4.6 Poverty profile including disadvantaged and vulnerable people

In the Taraclia District Council there is a Directorate[66] for social issues, which operates according to the Regulation on the organization and operation of the Directorate of Social Assistance and Family Protection of the Taraclia District Council. This Directorate is responsible for solving the problems of vulnerable groups in the district, including the villages from the Taraclia District.
Also, for the vulnerable population in the district, including affected villages by the construction of the 400 kV OHTL passing through Albota de Sus, Albota de Jos, Balabanu, Novosiolovca, Aluatu, Salcia, Musaitu and Vinogradovca localities, financial aid is granted, according to the Regulation on the granting of single financial aid from the means of the Reserve Fund of the Taraclia District[67].

[61] Source: http://taraclia.md/ro/page/consiliul-local/consiliul-local-214/ce-este-consiliul-local
[62] Source: Raionul Taraclia - alegeri.md
[63] Source: https://raiontaraclia.md/ro/consilierii-raionului/
[64] Source: https://www.facebook.com/PlaiNatalTaraclia/?locale=ro_RO
[65] Source: http://ong.md/index.php/catalog
[66] Source: https://cnapss.gov.md/organization/79
[67] Source: https://raiontaraclia.md/ro/comisii-specializate/

The Moldovan Civil Code offers the option of cooperation between two or more than two legal and/or physical entities without the formal creation of a new legal entity, via the conclusion of a Partnership Agreement, which is regulated by the general provision of the Civil Code. Thus, the current Moldovan legislative framework allows for the formation of LAGs[68] without the setting up of a new legal entity.

The localities in the Republic of Moldova are part of the Local Action Groups (LAG)[69]. The involvement of communities in the LAG offers opportunities to develop the 3 sectors based on projects and financial sources attracted from external donors or from the national budget. Thus, starting in 2022, through the LEADER Program[70], the LAGs selected on a competitive basis are offered the opportunity to access up to 5% of the National Fund for the Development of Agriculture and the Rural Environment.

Following the analysis of the data presented by the Statistics Directorate, a negative dynamic of the population is attested, which is manifested until now, this being mainly determined by the negative migratory growth, but also by the negative natural growth of the last 3 years. In the coming years, these demographic trends will continue, both at the country level and at the district level. According to the demographic forecasts presented in the study "Population of the Republic of Moldova after 30 years of independence", even in the most optimistic scenario, the country's population will decrease by approx. 21.5% by 2040 compared to 2020. External migration is the main factor of depopulation, causing an enormous imbalance in the age structure of the population. The situation is complicated by large differences in the numerical strength of age groups (demographic waves), which creates some difficulties in the medium-term planning process.

The Taraclia District Council approved the Integrated Development Strategy of the Taraclia District for the years 2021-2027[71] and the Action Plan for its implementation".

In order to assess the risks on the population and their properties through the implementation of the "Interconnection of power networks between the Republic of Moldova and Romania, Phase I" project, according to Law no. 120/2022, the Social Impact Monitoring Committees were created in the localities Albota de Sus, Albota de Jos, Balabanu, Novosiolovca, Aluatu, Salcia, Musaitu and Vinogradovca of the Taraclia district.

The committees are created for the purpose of ensuring the community's participation in the process of monitoring the environmental and social impact during the execution of construction works on the territory of the localities, of providing support, at the local level, to the operation of the complaint resolution mechanism within the project and assistance landowners affected in exercising their rights in the expropriation process. All complaints will be included in a special created Register.

According to the analysis of the social aspects, advantages and disadvantages of the population, from the localities affected by the Project, we can conclude the following:

[68] Source: https://www.leadermoldova.eu/assets/handbook2018en.pdf
[69] Source: https://www.leadermoldova.eu/assets/4gen.jpg
[70] Source: https://www.leadermoldova.eu/introduction-lag-by-lag.html
[71] Source: http://www.adrsud.md/lib.php?l=ro&idc=701

1. Special institutions, which offer social services, are mainly located in the district center of Taraclia and practically we are in the affected localities (only a few social workers).
2. Lack of young specialists in rural areas especially in the fields of: health, education, social services, culture, etc.
3. The increase in the number of people who need social services and benefits as a result of the prolongation of the economic crisis. Most of the population in the affected localities are engaged in agriculture. Many are employed at work in Taraclia, where there are more opportunities for jobs.
4. The Taraclia District has the Socio-Economic Development Strategy, but the localities in the district, have not developed such Strategies, nor do they have the financial and institutional capacities to develop them.
5. Official statistical data do not adequately reflect data on the poverty level of the population in rural areas. Thus, there is a lack of official information about the degree of poverty and the disadvantaged population in the affected localities. The localities Albota de Sus, Albota de Jos, Balabanu, Novosiolovca, Aluatu, Salcia, Musaitu and Vinogradovca**,** along other rural localities in the Taraclia district are already part of the GAL, which offers development opportunities for those based on projects and financial sources attracted from external donors or the national budget, especially through the LEADER Program and the National Fund for the Development of Agriculture and the Rural Environment.
6. The construction of the power line will not disadvantage the living conditions of the population in Albota de Sus, Albota de Jos, Balabanu, Novosiolovca, Aluatu, Salcia, Musaitu and Vinogradovca localities, especially the vulnerable groups in them. But, depending on the case, it will also be able to offer some advantages, such as a temporary job.

The construction works of the 400 kV Vulcanesti – Chisinau overhead transmission line (OHTL) and the commissioning of (about 158 km) of the Vulcanesti Back-to-Back (BtB) station within the project "Interconnection of power networks between the Republic of Moldova and Romania, Phase I" are declared as public utility of national interest. The Law no. 120 of May 12, 2022 has been published on the Official Monitor of the Republic of Moldova.

The number of people with a degree of disability is considered to be average and constitutes 4.7% of the population. Most of them are severely disabled, capable of activities without external help (65.71%), of which men - 53.2%. It should be noted that the social workers are responsive to their needs and the local authority gets involved whenever possible in solving their problems. The process of inclusion of people with special needs in society is ongoing, because it aims to change a mentality, and it is a lasting one that must be addressed through constant and consistent activities.

The 400 kV OHTL which pass though the land of the villages from the Taraclia District will affect the private and the state public land including property of LPA.

After declaring the public utility and presenting the Project documentation, approved in compliance with the applicable legislation, within 45 calendar days, the SE "Planning Institute for Land Management" will identify the owners of real estate (land) and / or, as the case may be, the holders of the right of use or other substantial rights over the real estate (land).

A Resettlement Action Plan is developed by the RAP Consultant, disclosed and consulted prior beginning of any construction works. The scope of this plan is to identify all affected persons by the project's activity, assess risks and establish mitigation measures of the expropriation process for all PAPs envisaged under the provisions of the Financing Agreements and elaborated in accordance with the OP 4.12: Involuntary Resettlement.

The RAP consultant shall develop the document and organize public consultation in all villages from the Taraclia. Additionally, a Social Impact Monitoring Committee has been created in all three villages and these local, non-governmental and non-political social structures whose members are representatives from all villages from the Taraclia District affected by the construction works, established to ensure community participation in the process of monitoring the environmental and social impact during the construction works in the localities, to provide local support for the functioning of the Grievance Redress Mechanism within the Project and assistance to affected landowners in exercising their rights in the expropriation process.

MEPIU plans to organize Public Consultation for ESIA/ESMP specific for the 400 kV OHTL for the Taraclia District in the last week of September 2023.

4.7 Land ownership, livelihoods of people

The Land Management Institute[72] (IPOT) shall identify project' affected people based on the approved detailed design and after that the RAP Consultant shall assess risks, establish mitigation measures for PAPs, disadvantage, vulnerable people and other people and set functional requirements for RAP implementation. RAP development and RAP implementation is in the responsibility of the Government of the Republic of Moldova.

The total land area of the Taraclia district, according to District Council information are:

1. Agricultural land of the Taraclia District includs: arable land for orchards, vineyards, others with agricultural distinction, pastures and other.
2. The lands of villages and towns intended for the construction of houses, social buildings;
3. Land intended for industry, transport, telecommunications and other special purposes;
4. Land intended for natural protection, health protection, recreational activity, land of historical-cultural value, land of suburban areas and green areas;
5. Lands of the forestry fund;
6. Water fund lands;
7. Reserve fund lands.

The structure of lands in the Albota de Sus, Albota de Jos, Balabanu, Novosiolovca, Aluatu, Salcia, Musaitu and Vinogradovca villages are mostly agricultural lands (>90%). The initial survey on the corridor of impact is showing that most of the lands are harvested in common and probably are leased to be cultivated. For this, the owners receive an annual payment in money and/or harvested products (usually wheat, sunflower, corn, etc.). Also, even are plots with different cadaster numbers these plots can have a common owner a Company or private person. This can be observed

[72] Source: http://ipot.md/

because of relatively big plots of land cultivated with the same crops. The RAP will give more detailed information about this.

Related to this type of using in southern part of country of land is most probably that the elder persons or other vulnerable persons do not have impediments to cultivate large areas of land, to use agricultural techniques or to worry about irrigation and land fertilization. All of this is done in large farms. Even that, most probably the incomes are not substantial and need future details from RAP socio-economic survey and PAPs questioning.

CHAPTER 5: ENVIRONMENTAL BASELINE

5.1 Physical Environment

5.1.1 Project Influence Area

For this sector it was selected the safety corridor of 20 km to be analyzed in order to avoid forest and protected areas and for environmental survey corridor consists of 10 km on both side of the line.

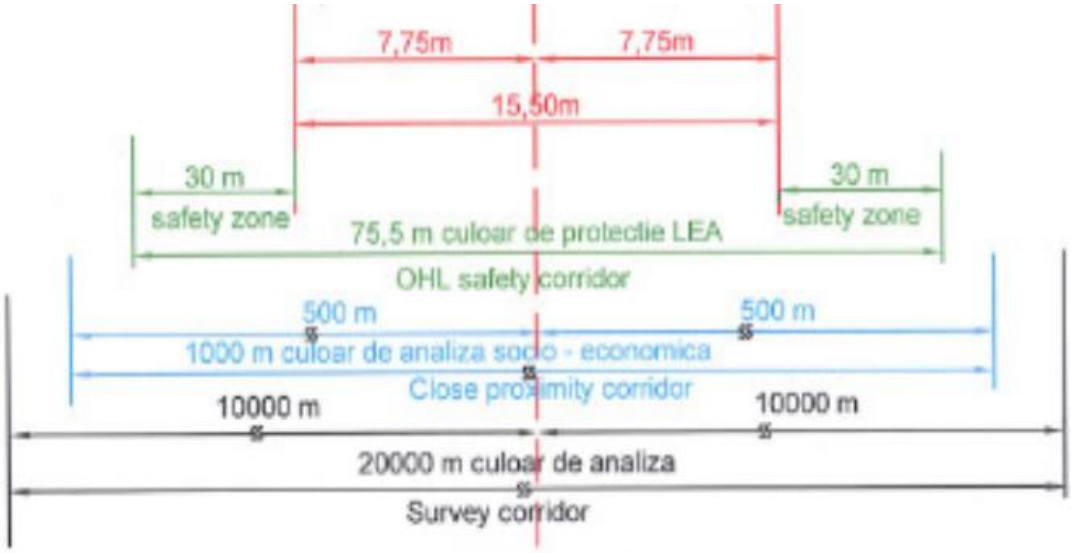


Figure 5-1: The environmental survey corridor to be analyzed during the site specific environmental and social impact assessment

The environmental survey corridor consists of 20 km or 10 km in one side and 10 km in another side.

5.1.2 Physiography and Land Use in the Taraclia District

5.1.2.1 Physiography and Land Use in the Taraclia District

The total area of the district is 150624 ha from which.

- Arable land – 67395 ha (44.74 %);
- Land for pedological investigation – 57068 ha (37.89 %);
- Eroded land – 26161 ha (17.37 %).

From the point of view of the way the district's lands are used, they can be divided into two main categories, namely agricultural lands (arable land, vineyards and orchards) and non-agricultural lands (forests, waters, constructions and communication paths). It is thus observed that 55.26 % of the total area of the Taraclia District is occupied by eroded lands and land for pedological research.

Table 5-1: The average soil quality[73] in villages from the Taraclia District

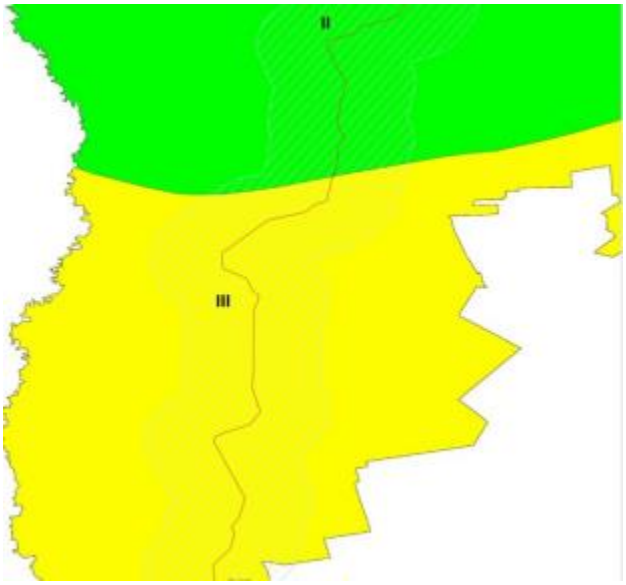
No.	Villages	Total agricultural land, ha	For pedological research, ha	The average soil quality (points)	Eroded plots			
					Total	Week	Moderate	Strong
1	c. Albota de Sus	6536	6014	60	3423	1712	1343	369
2	c. Albota de Jos	3520	3151	47	2065	871	723	471
3	v. Balabanu	2179	1640	59	636	303	222	111
4	c. Novosiolovca	2563	2329	50	1148	934	193	21
5	v. Aluatu	2044	1631	53	827	504	298	25
6	c. Salcia	2112	1937	50	1218	620	476	122
7	c. Musaitu	2810	2378	53	1139	362	492	285
8	c. Vinogradovca	3603	2767	51	1549	713	652	184

The soil quality represents the comparative assessment of the soil's quality, their potential fertility in relation to the natural conditions and the requirements of different crops in relation to them.

5.1.3 Climate

Republic of Moldova has a temperate-continental climate characterized by short winters and long warm summers. In terms of temperature and precipitation, Republic of Moldova is divided in three major agro - ecological zones: Northern, Central and Southern.

The District Taraclia is within the South zone with Pedo-climatic zone III: Pedo-climatic zone III: South Republic of Moldova plain, inferior terraces of the Dniester and Prut rivers.



[73] Source: https://gov.md/sites/default/files/document/attachments/subiect-09-nu-203-arfc-2022.pdf

Figure 5-2: Pedo-climatic zone III[74]

The Southern agro-ecological zone has the following characteristics:

- Landscape: the zone is undulating with hilly terrain interspersed with plains and large valleys and incorporates the Bugeac Plain in the south area;
- Temperature: annual mean temperature between 8.3 °C and 11.5 °C;
- Precipitation: annual mean precipitation for the majority of the zones between 450 - 550 mm;
- Agriculture condition: in this area, characterised by high temperatures and low rainfall, tobacco, grapes and cereal crops (maize and wheat) are grown widely.

The average annual air temperature in the Republic of Moldova varies from 8 to 10°C. But its value fluctuates in some years from 6.3°C (1980, meteorological station Briceni) up to 12.3°C (2007, Cahul meteorological station).

During the entire period of instrumental observations on the territory of the country the lowest air temperature was reported on January 20, 1963 – -35.5ºC at the weather station Brătușeni (district Edineț), the highest was +42.4ºC (on August 7, 2012, at the weather station Falesti).

Figure 5-3: Multiannual average air temperature, °C

The absolute minimum at the ground surface was -42ºC (January 20, 1963, station meteorological station Soroca, Glodeni) and the absolute maximum reached +74ºC (July 19, 2007, meteorological station Leova).

The territory of the Republic of Moldova is attributed to the area with insufficient moisture. Annual amount of precipitation decreases from northwest to southeast from 610 mm to 460 mm.

[74] Source: ESIA - https://moldelectrica.md/files/docs/md_ro_project/ESIA_Annexes_Interconnection_Md_Ro_EN_July%202017.pdf

Figure 5-4: The amount of precipitation in the central part of the Republic of Moldova

However, in different years their amount fluctuates within large limits: from 190 mm (2003, Lopatnic hydrological station) up to 1140 mm (1996, Cajba hydrological station).

Average monthly rainfall amounts throughout the year range from 20 mm (March) up to 90 mm (June) and these too are prone to great variability. Most a large daily amount of precipitation fell on July 8, 1948 in the region of the station meteorological Chisinau – 218 mm, or 40% of the annual norm.

The wind regime[75] is characterized by the predominance of the wind direction from the northwest on most of the territory of the country, and in the southern districts - the direction from the north. Wind speed largely depends on the protection of the locality. The average annual wind speed varies on the territory from 2 to 4 m/s.

5.1.4 Hydrology

The surface water resources of the Taraclia District are represented by the hydrographic basins of the Ialpug River. The figure below shows the map of the hydrographic basins (HB) of the Prut and Ialpugivers.

[75] Source: http://www.meteo.md/images/uploads/gis/meteo/Caracterizarea_climei_RM.pdf

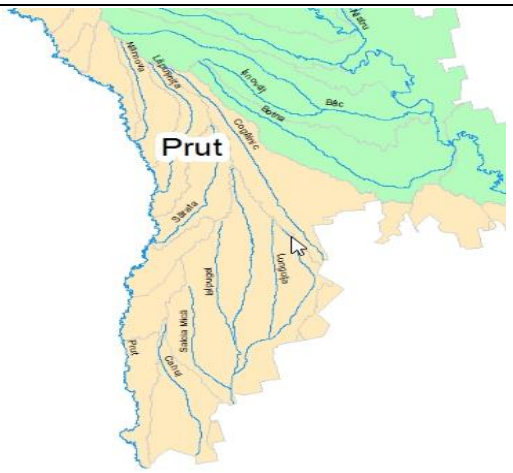


Fig. 5-5: HB of the Prut River

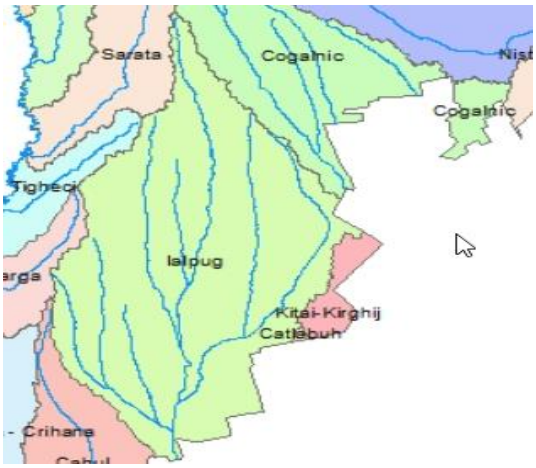


Fig. 5-6: HB[76] of the Ialpug River

Ialpug River has a length of 114 km, an area of 3,180 km2 and flows into Ialpug Lake near the Bolgrad town, Odessa region, Ukraine. The basin is located in Bugeac Steppe, Ialpug Depression, being elongated from north to south, wider in the middle. The relief is fragmented plain. Eastern slopes of the valleys and the cliffs are steep and very steep, heavily dismantle and those of the west are tame and moderate inclines. From the total reception basin area, mostly is plow (70%), the forests (oak, acacia) covers only 7%, being located on watersheds as groves, especially on the left bank; large areas are occupied by vineyards and less by orchards, lands improper for agriculture are covered with steppe vegetation.

Ialpugel River has a length of 45 km, an area of 507 km2 and flows into the Ialpug River 1.5 km northwest of village Alexeevca. The reception basin located in Bugeac Steppe, is relatively narrow, elongated from north to south, the landscape is wavy, light fragmented. Most of the area is covered by field crops, only small areas are planted with vineyards and orchards.

Sălcia Mare River has a length of 45 km, an area of 590 km^2 and flows into the Ialpug River, at 1.5 km northwest of village Alexeevca. Catchment located in Bugeac Steppe is relatively narrow, elongated from north to south; the landscape is wavy, light fragmented. Most of the area is covered by field crops, only small areas are planted with vineyards and orchards. The basin is elongated from north to southeast widened in the middle, asymmetric, more developed on the left. It is located in the northern part of Bugeacului Steppe, upper part of the Baimaclia hills, characterized by many valleys and cliffs. The surface is used, planted with vineyards and orchards. The monitoring of water quality of Sălcia Mare River was carried out in Section s. Vinogradovca. In 2014, Sălcia Mare River water quality falls in quality class III (moderately polluted), WPI with 1.81 value.

[76] Source: http://www.apelemoldovei.gov.md/pageview.php?l=ro&idc=134&id=1172

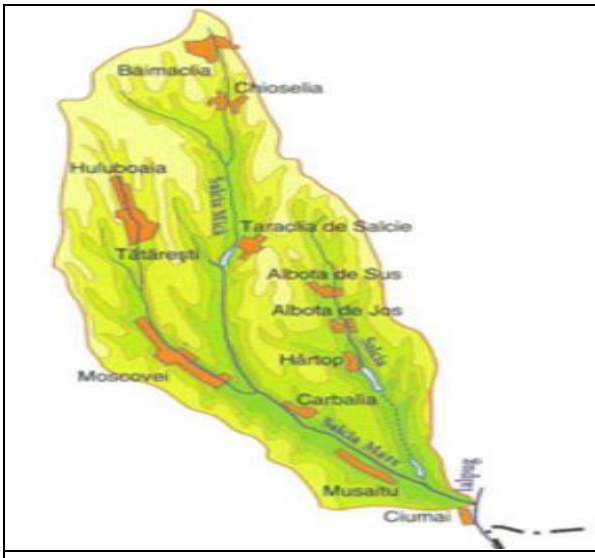


Fig. 5-7: HB of the Salcia Mare River

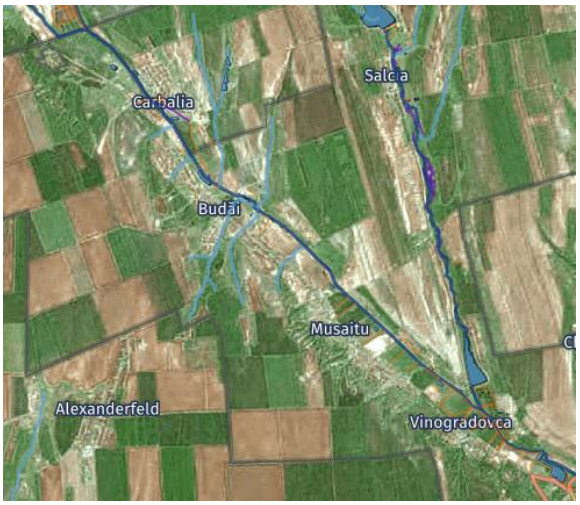


Fig. 5-8: HB of the Salcia Mare River[77]

In Ialpug River Basin, the 400 kV OHTL Vulcăneşti - Chişinău route crosses an impermanent water course in the Sălcia River (tributary of Ialpug Rive) in the South of Sălcia localities and Sălcia Mare river (tributary of Ialpug River) between Muşaitu and Vinogradovca localities.

Tărăclia reservoir is located at 5 km East from the OHTL in ATU Găgăuzia, between Balaban and Svetlîi villages. The Taraclia reservoir covers an area of 1,510 ha, has a volume of 62 million m^3 and an average depth by 4.1 m and is used for recreational activities. Tărăclia reservoir water is characterized by a high degree of mineralization, increased concentrations of sulphates and chlorides, sodium ions and potassium, magnesium and calcium, which gives high hardness of water based on specifics and nature of soil and rocks in the region. Over the last 5 years, Tărăclia reservoir water quality, according to WPI, recorded insignificant changes, maintaining the quality class III (moderately polluted).

5.1.5 Geology

The Taraclia District is located in the South of the Central Moldavian Plateau, where the peaks and hills are narrow (100-200m). The horizontal fragmentation of the relief is 2.5-4 km/km², and the vertical one exceeds 200 m. The depth of the erosive fragments -100-200 m. The ravine-gravel relief prevails.
Most slopes have an inclination of 10-20 degrees. On the steep slopes the processes of erosion and landslides.

The geological structure consists of different formations of Pre-Cambrian, Paleozoic, Mesozoic and Cenozoic. At the surface, the Neogene and Quaternary rocks are present.
The litho – stratigraphic distributions are as follows:

- Sarmatian, represented by a layer of sedimentary rocks;

[77] Source: https://gherman.carto.com/viz/f522b2c5-ee41-4543-86a2-470120ce1cf7/embed_map

- Middle Sarmatian, represented by gray-green and gray-blue clays with intermediate layers of sands with grey-gold mica;
- Upper Sarmatian, with thickness up to 40 m, represented by gray-green and gray blue clays and small amount of sands and aleurite;
- Upper Sarmatian and Meotian, with thickness up to 200 m, represented by continental gray-blue and gray-green class, with intermediate sands layers and lenses;
- Pontian, with thickness of 60 - 70 m, represented by gray-green clays and fine-grained sands;
- Middle Pliocene, with thickness up to 30 m, represented by alternation of fine-grained sands and plastic clays with thin intermediate layers of limestone;
- Upper Pliocene, with thickness between 10 m and 65 m, represented in the lower part by coarse sands layers with lenses of gravel, pebble, clay aleurite and at the upper part with clay-sandy soils and clays;
- Upper Pliocene Quaternary, with thickness between 5 - 6 m and 35 m, represented by clay-sandy soils with loess, clay-sandy soils, argillaceous- sandy soils and sands with intermediate layers of fossil soils.

The upper layers of the initial Tertiary (Sarmatian) rocks, as well as the diluvial deposits, were included in the pedogenesis processes and serve as parent rocks. The composition and specific properties of some parental rocks condition the direction of pedogenesis. As a result, territorially varied ecological conditions were formed. No active landslides are situated in the analyzed area.

Fig. 5-9: Geological structure District Taraclia[78]

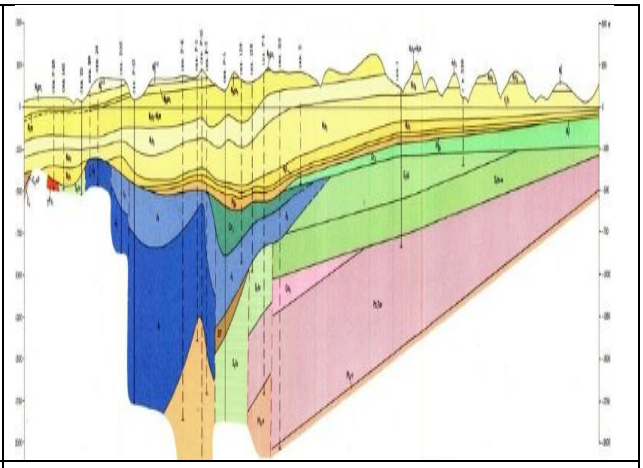


Fig. 5-10: The profil A-A of the geological structure

In the geological structure of the field activates quaternary alluvial layers (alluvial soil, alluvions and muddy) and alluvial-colluvial represented by sandy clays, cuaterner clays, sand and accumulated landslides, followed by neogene clays.

According with the prospection works[79], the soil and under soil structure of the analysed area enclosure presents topsoil at 0.00-0.70 m depth and brown sandy clay, hard, macro-pores at 0.70-

[78] Source: http://agrm.gov.md/ro/contact/harti
[79] Source: ESIA - https://moldelectrica.md/files/docs/md_ro_project/ESIA_Annexes_Interconnection_Md_Ro_EN_July%202017.pdf

8.00 m depth. Between 0.50-3.50 m the brown sandy clay presents grains and carbonates intercalations. The analyzed area is not located on area with eroded soils and other unstable lands process.

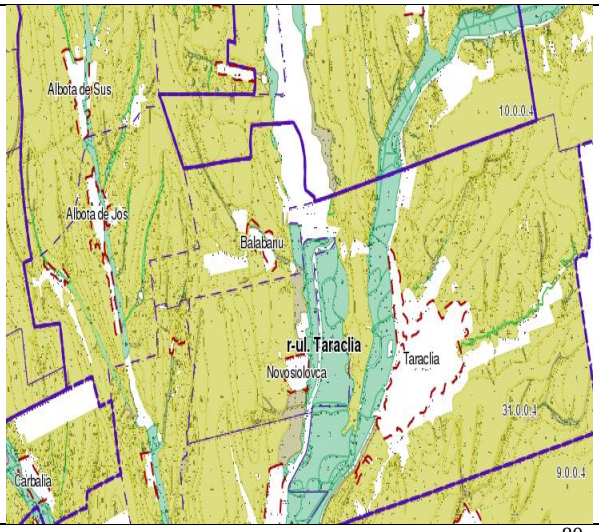


Fig. 5-11: Soil type in the Taraclia District[80] (black soil)

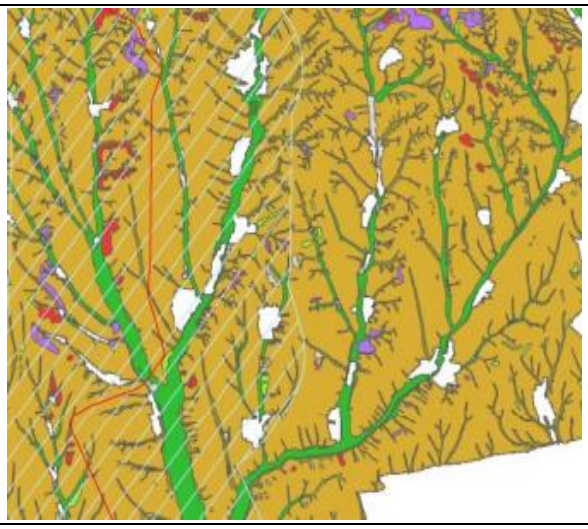


Fig. 5-12: Soil quality in the Taraclia District (black soil)

The soils quality in Republic of Moldova is strongly influenced by climatic conditions (high temperatures, low rainfall), inappropriate agricultural practices (ineffective methods for agricultural exploitation, use of fertilizers and pesticides) and abusive deforestation. As a result, the soil is affected by erosion, degradation and landslides.

5.1.6 Seismicity

The seismicity of the Republic of Moldova is determined, in particular, by subcrustal earthquakes of intermediate depth in the Vrancea area, located in the territory of Romania at the bend of the Carpathian Mountains.

The Vrancea area represents a permanent and active source of earthquakes, already known for a millennium, which possesses practically unique characteristics on the globe (the small and isolated volume of the seismogenic zone, the directivity of the spread of seismic energy, the enormous affected surface, etc.).

[80] Source: http://soluri.md/adapt/dist/#/layers

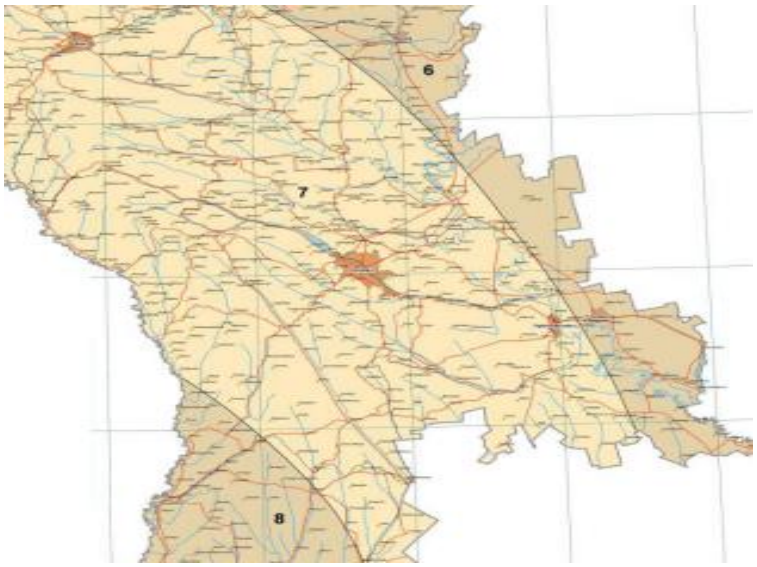


Figure 5-13: Zonation of Seismicity[81] of Moldova

The Taraclia District is located in the 8 Richter zone of seismicity.

5.2 Chemical Environment

5.2.1 Air Quality and Climate Change

Air quality in the Republic of Moldova is influenced by human activity, transport, industrial production and natural sources of pollutants, and the historical trend is that air pollution has increased over time, especially in densely populated and industrial areas. The same trend was valid in the case of Moldova. A higher concentration of pollutants is observed only in the municipality of Chisinau and near large power plants. However, the overall air pollution situation in Moldova turned out to be a favorable one, especially compared to other European countries, including Ukraine, Romania and others.

For the first time, the European Space Agency (ESA)[82] carried out a study for air pollution mapping in the Republic of Moldova using Earth observation data. Satellite data provided by Sentinel 5P – based on state-of-the-art technology, equipped with the latest atmospheric measurement equipment – was used to analyze the main atmospheric pollutants: ozone (O_3), nitrogen dioxide (NO_2), carbon dioxide of sulfur (SO_2), suspended dust (PM_{10} and $PM_{2.5}$). Thus, as a whole, the level of air pollution in Moldova, seen from space, is relatively low compared to other European countries and our neighbors, being mostly within the limits of the air quality guide of the World Health Organization.

[81] https://igs.asm.md/node/124
[82] Source: https://maps.s5p-pal.com/

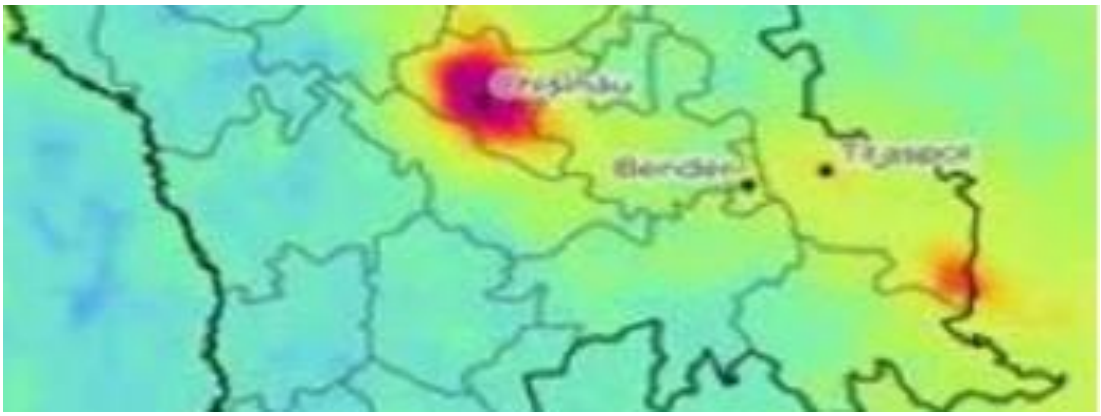


Figure 5-14: The distribution of Nitrogen Dioxide (NO_2) on the Taraclia District

Sulfur dioxide values are generally low across the country, with only a modest increase around the capital. This pollutant is mostly related to coal-fired power plants, industrial processes, or other fossil fuel burning activities.

Figure 5-15: The distribution of Sulphur Dioxide (SO_2) on the Taraclia District

According to the research, the amount of sulfur dioxide in the air reaches its highest levels during the winter period, usually increasing five to ten times compared to the summer, due to the heating season. In terms of health impact, short-term exposure to a high concentration of sulfur dioxide can cause serious breathing difficulties (those most affected are asthmatics, children, the elderly and those with chronic respiratory diseases), while long-term exposure at a low concentration it can lead to respiratory tract infections.

The distribution of carbon monoxide is relatively similar throughout Moldova, in the Bender, Cahul, Glodeni and Chisinau regions, where the highest average concentrations are recorded. The pollutant is a product of incomplete fuel combustion in vehicles, heating, coal-fired power plants, waste disposal and biomass burning.

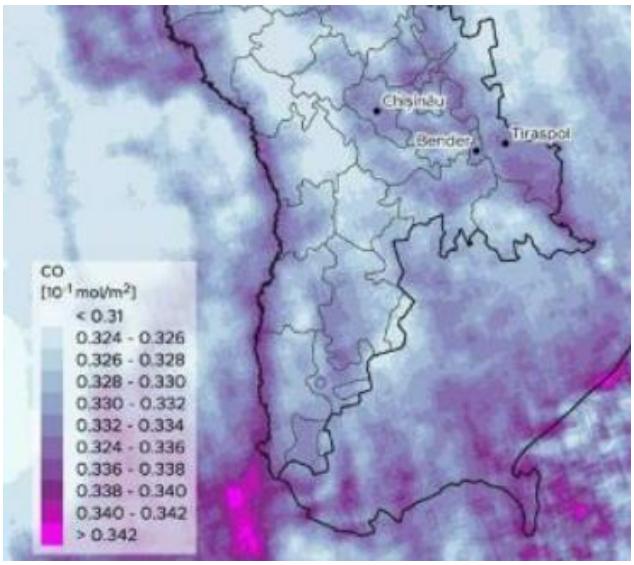


Figure 5-16: The distribution of Carbon Monoxide (CO) on the Taraclia District

The pollution in the Taraclia area is explained by the presence in the immediate vicinity of the municipality of Chisinau industrial zone. Carbon monoxide is a toxic gas, lethal in high concentrations, affecting the respiratory and cardiovascular systems. At relatively low concentrations, it causes shortness of breath, reduced physical capacity, migraines, nausea, among other symptoms.

The level of air pollution in the site area[83] is influenced by the noxious emissions resulting from the use of natural gas, wood and coal in the heating process, as well as exhaust gases from transport units (local and national roads).

Table 5-2: The level of air pollution in the Taraclia District

No.	Pollutants	Real concentration in the Taraclia District	Maximum admissible concentrations[84], mg/m^3	WHO/WB/IFC[85] Guideline value in mg/m^3
1	Nitrogen dioxide	0.24 10^{-4} mol/m^2	0.04	40
2	Sulphur dioxide	1-50	0.05	20
3	Carbon monoxide	0.330 - 0.332 x 10^{-1} mol/m^2	3.0	-
4	PM_{10}	-	0.05	20
5	$PM_{2.5}$	-	-	10

The volume of emissions from car transport constitutes approximately 90% of the total amount of pollutants in the atmospheric air.

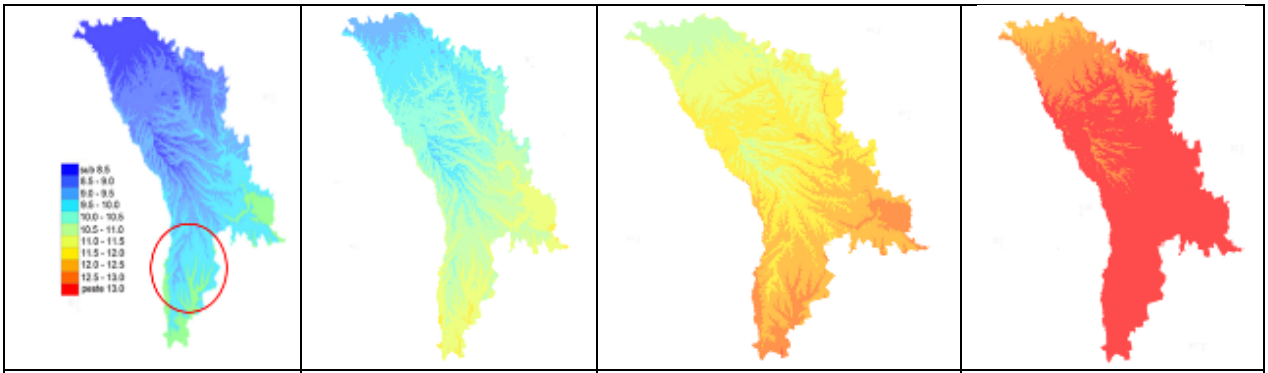
[83] Source: https://faradeseuri.md/ro/ce-stim-despre-calitatea-aerului-in-moldova/
[84] Source: http://www.meteo.md/images/uploads/pages_downloads/tabel_aer2.pdf
[85] Source: https://www.ifc.org/wps/wcm/connect/4e01e089-ad1a-4986-b955-e19e1f305ff0/1-1%2BAir%2BEmissions%2Band%2BAmbient%2BAir%2BQuality.pdf?MOD=AJPERES&CVID=nPtgvbS

5.2.1.2 Climate Change

The Biennial Update Report (BUR3)[86] reports that over the last 132 years, the Republic of Moldova has experienced changes in average values of temperature and precipitation. The country had become warmer, with an average temperature increase of more than 1.2°C, while the increase in precipitation was only 51.3 mm.

The Project is located in the Pedo-climatic zones III, with the following characteristics in terms of climate change for Pedo-climatic zone III: high risks of soil erosion, salinization, desertification and medium risks of flood increase. In the Third National Communication of the Republic of Moldova under United National Framework Convention on Climate Change (2013), three climate change scenarios were developed for assessing the future climate (temperature and precipitation). All general circulation models (GCMs) used agree that in future considered periods (2020s, 2050s and 2080s), an increase of the annual mean temperature and a decrease of the annual precipitation, relative to the 1961-1990 reference periods, will be expected. The Republic of Moldova is highly vulnerable to climate change and variability, and the socio-economic costs of climate change related to hazards such as droughts, floods, late spring frost, hail are significant. The measurements performed by the hydro-meteorological monitoring network since 1886 reveal a clear increase of mean annual temperature and precipitation, namely: (i) The mean annual temperature measured during the period 1981 - 2010 increases with 0.7°C, comparing with the period 1887 - 1980; (ii) The mean annual precipitation measured during the period 1981 - 2010 increases with 26.5 mm comparing with the period 1887 - 1980.

For the period 2010-2039, the three emission scenarios predict fairly homogeneous temperature increases for the Republic of Moldova, on average around +1.2-1.4°C. Only starting with the 2050s, these three model ensembles of emissions scenarios project more different temperature increase trends. This happens because of the great inertia of the climate system, which takes centuries for the impact of greenhouse gas emissions to fully manifest. The annual mean air temperature specific for future climate in the south region of Republic of Moldova, will increase with 1.2 - 1.4 °C by 2020s, with 2.2 - 2.8°C by 2050s and with 2.7 - 4.2 °C by 2080s.



1961-1990	2020s	2050s	2080s

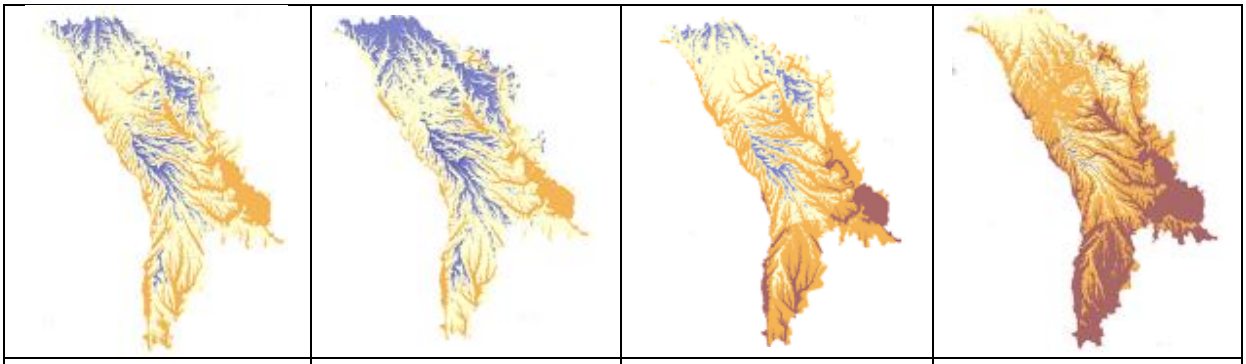
Fig. 5-17: The evolution of the air temperature in Republic of Moldova

[86] Source: https://eu4climate.eu/moldova/

Since 1980s, droughts are a major problem for Republic of Moldova, especially in the south area; the extreme droughts registered in 2007 and 2012 affected more than 70 % of the country area and sharply reduced agricultural production. In fact, a long time must pass before greenhouse gas emissions create situations that are only considered climate scenarios for the future. In the 2080s, the average temperature increase is higher and can reach values of around 4.3°C.

Also, the floods periodically affect Republic of Moldova; in the last 70 years 10 major floods occurred on the Dniester and Prut rivers, as well as, locally, on several small rivers.

The annual average precipitation will increase with around 2 % by 2020s; the rate of decreasing in precipitation varying from - 1.1 % to – 6.9 % by 2050s and from - 1.8 % to - 13.5 % by 2080s, depending on the climate scenarios.



1961-1990	2020s	2050s	2080s

Fig. 5-18: The evolution precipitation in the Republic of Moldova

The largest decrease in precipitation is expected during summer varying from - 0.6 % to - 1.4 % by 2020s, from - 3.3 % to - 15.9 % by 2050s and from - 8.4 % to -26.4 % by 2080s, depending on the climate scenarios.

5.2.2 Noise and Vibration Levels

Acoustic pollution, also called noise pollution or noise pollution, is a component of environmental pollution produced by noise.
Noise, representing a health and environmental problem, is defined as a complex of sounds without a periodic character, with random unpleasant insurgency, which affects the psychological and biological state of people and other organisms in nature.

The physical or objective characteristics of noise concern loudness or loudness, duration and frequency. Intensity is the most important character that depends on the features of the source, distance and possibilities of transmission or multiplication.

In the period of 2021-2019[87], the largest share of instrumental investigations not be in compliance with sanitary regulation is found in sonic pollution from highways 16.8% to 37.1%, at railways and

[87] Source: https://ansp.md/wp-content/uploads/2022/08/RAPORT-ANUAL-ANSP-2021.pdf

railway stations from 5.4% to 11.1%, industrial enterprises located in residential districts - 12.7-21.9%, institutions, organizations and enterprises located in residential houses and attached to them - 11.1- 44.7%, petitions to objectives with sources of noise and CEM – 11.3- 45.9%.

In order to assess risks caused by the action of physical factors such as: noise, vibration, microclimate instrumental investigations were carried out in 2020 by the specialists of the National Agency for Public Health[88] and territorial CPH and over 66,868 investigations were carried out (in 2019 – 61,873, in 2018 - 75,888).

The air noise level in the agricultural field and on the pasture lands is the natural background and in the case of point or quasi-point sources of noise pollution, the theoretical decrease in the noise level is 6 dB when the distance is doubled. The effective decrease depends on the absorption characteristic of the land and can reach 4-5 dB.

It has been accepted that the number 80 on the decibel scale, or on the phone scale, represents the threshold at which sound intensity becomes harmful. Excessive exposure to intense noise for long periods of time causes deafness.
The sources of acoustic pollution with a serious risk for the health and safety of workers in the industrial environment are:
- pipes through which gases, vapors or liquids circulate;
- compressors and turbochargers;
- fans and turbo blowers;
- ventilation installations;
- pipelines through which gases are circulated at high speeds;
- pumps and electric pumps;
- thermoelectric plants;
- fans, electric power generators, piston compressors for supplying compressed air, burners from steam boilers;
- industrial furnaces (the most important source of noise is the burners, forced draft fans, regulating valves and blowers).

In localities, sources of noise pollution are classified into: (i) fixed sources, including residential, industrial, construction and demolition areas and (ii) mobile sources that are given by the urban surface transport network, airports.

According to a study published by the World Health Organization (WHO), the acoustic pollution produced by traffic (cars, trains and planes), considered "the second environmental factor favoring diseases", after atmospheric pollution, is at the origin of some diseases, the reduction of attention , of work capacity with the increase in the risk of accidents; installation of auditory fatigue; traumas (dizziness, pain, damage to the auditory system and even rupture of the eardrum); insomnia, heart attack, learning problems and tinnitus (ringing in the ears); weight loss, stomach spasms, nervousness, color recognition deficiency and even premature death.

The impact of noise pollution on the animals and birds is also can cause disturbance and death.

[88] Source: https://ansp.md/wp-content/uploads/2022/08/RAPORT-ANUAL-ANSP-2021.pdf

5.2.3 Water quality

5.2.3.1 Surface water quality

The Republic of Moldova depends a lot on surface water resources[89]. According to the data presented by the "Apele Moldovei" Agency, in order to cover the annual need for water at the national level, approximately 850 hm3 of water are collected annually. 85% of this volume of water is extracted from surface water, especially from the two major river basins Dniester and Prut, and only 15% is extracted from underground water. Surface water is an easier source to exploit because it renews quickly, but it is of low quality and requires treatment techniques for potability.

The water quality of Prut River in Republic of Moldova is monitored monthly by the State Hydrometeorological Service. Water quality is assessed as well, based on WPI that accounts for six physicochemical parameters including ammonium nitrogen, nitrite nitrogen, petroleum products, phenols, dissolved oxygen (DO), and biochemical oxygen demand at 5 days (BOD5). According to the report of the State Hydrometeorological Service for the first semester of 2017, the quality of the Prut water was attributed to moderately polluted water (class III).

The average concentration of ammonium ions in rivers between 1992 and 2018 is 1.77 mg N/l, varying from 1.09 (1997) to 2.49 mg N/l (2001).

The Prut river basin are moderately polluted with organic matter, but some places correspond to high pollution (3.0 - 4.0 mgO_2/l). Regarding the sections of the Danube - Black Sea river basin, 25% of them are moderately polluted, 25% - highly polluted and 50% - very highly polluted with organic matter.

According to the Hidrometeo's research, the Ialpug river and hydrographic basin water quality have the following characteristics: water shortage, river with a barely visible flow, more ponds with stagnant water and aquatic vegetation, dams and dams, intensive agriculture up to the water's edge, polluted and with wastes.

The Cahul River water quality has decreased for the following parameters: chloride, color, phenols and dissolved oxygen. In terms of the Water Quality Indicator, the water quality maintains quality class III (moderately polluted).

Sub-surface waters are the main source of potable water supply in the Republic of Moldova, for 100% of the rural population and 30% of the urban population, or 65% of the total population of the country. The remaining 35% of the population use surface waters as a source of potable water, including 32% from the Dniester River, 2.8% from the Prut River and 0.2% from other surface waters.

[89] Source: Environmental Agency - https://drive.google.com/file/d/1YD6esULO-JNJGhTmN1P8U2Ft228B8hGH/view

Water quality in wells in the unconfined aquifers does not comply with the national standard for drinking water. Investigations indicate a strong correlation between groundwater quality in unconfined aquifers and land use.

Continuous degradation of drinking water quality is attributed to increased livestock growing in households. There are signs that the human factor plays an increasingly significant role in polluting water in confined aquifers as well, through infiltration of polluted water and through abandoned boreholes. Man-made pollution results in an increasing number of polluted water withdrawal sources that threaten centralised water supply systems in several towns[90].

The ground water quality of shallow well in the region is poor. The water from artesian wells is also technical in this region.

Around the 400 kV OHL Vulcăneşti - Chişinău route, within the OHTL corridor, there are the following complex and aquifers:

- Badenian - Sarmatian (N1-S1) Aquifer Complex - is the only hydraulic aquifer complex, uniting in the north, Sarmatian and Badenian lower, while in the central and south, connecting Lower and Middle Sarmatian. Water-bearing rocks are limestone reefs, which contain insertions in some areas overlapping marl and sands. The abundance of water complex Badenian-Sarmatian varies depending on territory, recording values between 0.1 - 2.2 l / sec;
- Upper Sarmatian - Meoţian (N1S3-m) Aquifer Complex is spread mostly in central and southern Moldovan Artesian Basin. Rock aquifer thickness is uneven and varies from 20.0m to 300 m (in the south). Water-bearing rocks are fine-grained and petty sands infilled clays, limestone and sandstone, with thickness from 2 m to 28 m. Bedrock are represented by sandy clay sediments stratigraphically assigned to the middle Codrului. Groundwater in this neighbourhood do not have pressure, but with sinking sediments south, they acquire piezometric pressure, which can reach the height of 65 - 100 m;
- Medium Sarmatian (Congerian) (N1S2) Aquifer Complex comprises the sands of Medium Sarmatian and is spread in the south-western territory between the Dniester and Prut. Water-bearing rocks are fine-grained and petty sands in which are layered specific intercalations of clay, sandstone and limestone. The thickness of the aquifer varies from 5 - 15 m to 20 to 30 m, and in the south reach up to 40 - 50 m. The smallest thickness of the horizon is recorded in Batir, Tărăclia, Troiţcoe, Stoianovca, Cebolaccia villages;
- Pontian aquifer is spread in the south of the country. Water-bearing rocks are sediment of the Novorossiysk sublevel, represented by granular sands containing limestone-cochilifer at the bottom of the section. In some sectors are noticed several (up to 4) sand intercalations studied as separate aquifers holding specific pressure level (insertions from 3 - 5 cm to 25 cm, total thickness is 80 to 100 m). Groundwater level of the Pontian aquifer recorded at a depth of 1 - 5 m (Giurgiulesti village) and 5 - 10 m along the Prut (Slobozia-Mare village - Suvorova).

[90] https://www.climatechangepost.com/moldova/fresh-water-resources/

Figure 5-19: Bedanian – Sarmatian and Upper Sarmatian – Meotian Aquifer complexes

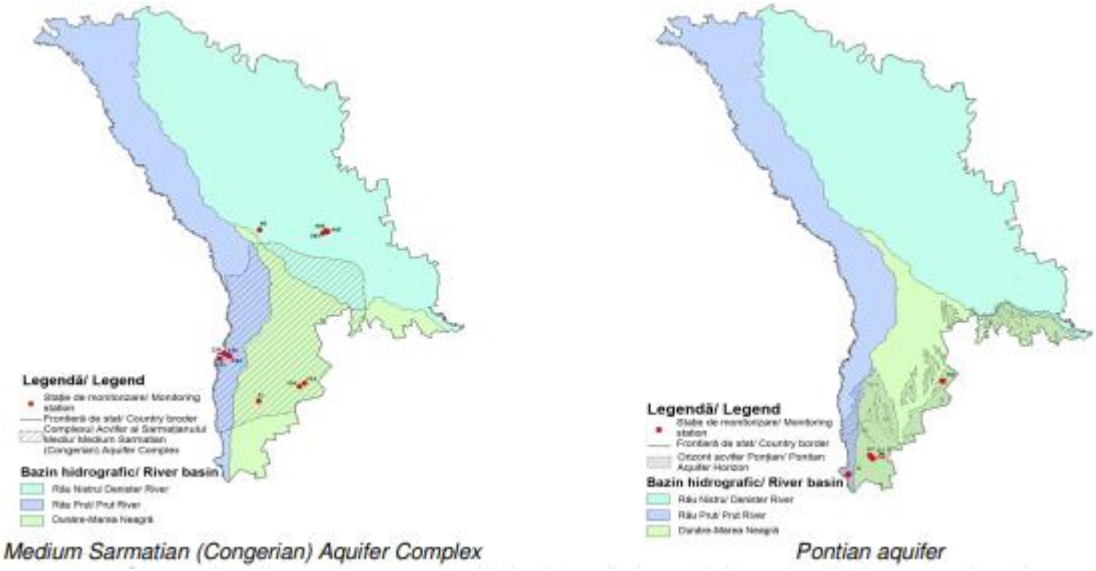


Figure 5-20: Position of aquifer and aquifer complexes along the OHTL corridor

5.3 Biological Environment

5.3.1 General Ecosystem information

To assess the potential impact on biodiversity, there were considered the protected natural areas already included in the national network and Emerald sites (including IBA) crossed by the power line or located at 10 km on one side and other side of it. Table no. 5-1 provides for SPNAs considered in assessing the impact at the OHTL construction stage specific for Taraclia District.

5.3.2 Flora and forest resources

5.3.2.1 General information

The characterization of protected areas (classification, surface and width of protection area) located within OHTL survey corridor, including the distance up to OHTL route is presented in the following table.

Table 5-3: The characterization of protected areas within the Taraclia District

No.	Type	Name of the protected area	Surface (ha)	Width of protection area (m)	Owner	Distance to OHTL route (km)
1	Monument of nature	Muşaitu Cliff	5	500 – 1,000	Agricultural enterprise "Musaitu"	2.75
2	Monument of nature	Budăi Cliff	5	500 – 1,000	Agricultural enterprise "Drujba"	6.40
3	Monument of nature	Bugeacului South Steppe Sector	50	700 – 1,000	Agricultural enterprise "Ciumai"	1.00

The 400 kV OHTL route has been designed in order to avoid crossing the protected areas, situated at distances between 0.63 – 5.0 km from the proposed OHTL route.

5.3.2.2 Monument of nature „Musaitu Cliff"

It is located in the village of Musaitu, district Taraclia, right slope of Salcia Mare river, the ravine above the middle area of this locality. Surface – 5 ha. Altitude - 50-130 m. Land owner - In the "Musaitu" agricultural enterprise. It was established in 1975.

The main values, for which the site in the Musaitu Cliff was declared a natural monument, are the Pontian marine clayey deposits, with fruits, seeds and fossilized leaf impressions of various plants and brown coal lenses. Above these deposits is a layer of red-brown clays, which constitutes the so-called alteration crust, which confirms the presence of very arid climate conditions, followed by continental alluvium with Carpathian Pictris of the Lower Pliocene.

Figure 5-21: The monument of nature located near the village Musaitu[91]

Fig. 5-22: The monument of nature Musaitu Cliff view

The geological and paleontological monument of nature site is located at a distance of 2.75 km far from the OHTL corridor.

The plant and animal species classified as endangered (EN), critically endangered (CR) and vulnerable (VU) are as follows:

- Republic of Moldova Red Book:
  - Endangered: Grass Lizard (Podarcis tauricus Pallas), Hazel Snake (Coronella austriaca Laur.), Coluber Caspius Gmelin, European Honey Buzzard (Pernis apivorus L.);
  Critically endangered: Bombus fragrans Pall., Earth Frog (Pelobates fuscus Laur.), Lesser Spotted Eagle (Aquila pomarina Brehm.), Hen Harrier (Circus cyaneus L.), Saker Falcon (Falco cherrug Gray), Stock Dove (Columba oenas L.);
  - Vulnerable: Volga Adonis (Adonis wolgensis Stev.), Giant Hornet (Scolia maculata Drury), Papilio machaon L., Southern Festoon (Zerynthia polyxena Den. et Sch.), Black Gaia (Milvus migrans Bodd.), Speckled Ground Squirrel (Spermophilus suslicus Guld.);
- IUCN Red List: Turtledove (Streptopelia decaocto) is clasified as vulnerable, but is not included in the Republic of Moldova Red Book, Saker Falcon (Falco cherrug) is classified as endangered and Speckled Ground Squirrel (Spermophilus suslicus) is classified as near threatened.

5.3.2.3 Monument of nature „Budai Cliff”

The nature monument is located in the ravine on the western edge of Budai village, Taraclia district, on the right bank of the Salcia Mare river, the area is 5 ha. Altitude 70 - 130 m. Land owner is GSS Cahul, silvic household Moscovei, State Enterprise "Drujba", Taraclia district. Date of

[91] Source: http://www.ieg.asm.md/ro/cadastrul_ariilor_protejate

establishment is year 1975. In Râpa Budăi there are old alluvial deposits of the Lower Pliocene (find the so-called Carbalia layers), which contain interesting and valuable, from a scientific and cognitive point of view, skeletal remains of some reptiles and several mammals, which have attracted the attention of paleontologists from Moldova and other countries.

Fig. 5-23: The monument of nature Budai Cliff[92]

Fig. 5-24: The monument of nature Budai Cliff view

The species of particular scientific interest are: the snake Coronela austriaca, the monkey Dolichopithecus cf. ruscinensis, the climbing rabbit Pliopentalagus moldaviensis (a species new to science), the beaver Trogontherium cf. minus, the micromammal Promimomys moldavicus, the proboscidean-mastodons Mammut borsoni and Anancus arvernensis, the deer Procapreolus cusanus and other representatives of the Moldavian Faunal Complex. At the base of the alluvium is a layer of Pontian deposits rarely found in Moldova.

The landscape reserve site located at the 6.4 km far from the OHTL corridor.

The plant and animal species classified as endangered (EN), critically endangered (CR) and vulnerable (VU) are as follows:

- Republic of Moldova Red Book:
  - Endangered: Grass Lizard (Podarcis tauricus Pallas), Hazel Snake (Coronella austriaca Laur.), European Honey Buzzard (Pernis apivorus L.);
  - Critically endangered: Astragalus excapus L., Earth Frog (Pelobatas fuscus Laur.), Saker Falcon (Falco cherrug Gray.), Hen Harrier (Circus cyaneus L.), Lesser Spotted Eagle (Aquila pomarina Brehm.), Stock Dove (Columba oenas L.);
  - Vulnerable: Clay Bumblebee (Bombus argillaceus Scopoli), Southern Festoon (Zerynthia polyxena Den. et Sch.), Black Kite (Milvus migrans Bodd.), Speckled Ground Squirrel (Spermophilus suslicus Guld.).

[92] Source: Cadastrul ariilor naturale protejate de stat | Institutul de Ecologie şi Geografie (asm.md)

- IUCN Red List: Turtledove (Streptopelia decaocto) is clasified as vulnerable, but is not included in Republic of Moldova Red Book, Saker Falcon (Falco cherrug) is classified as endangered species and Speckled Ground Squirrel (Spermophilus suslicus) is classified as near threatened.

5.3.2.4 Monument of nature Bugeac South Steppe

The nature monument is located at the extreme south-west of the Republic of Moldova, on the territory of the Taraclia district, south-east of the village Vinogradovca, on slopes with a north-east exposure, facing the Salcia river. It occupies an area of 50 hectares. Altitude 20-110 m. The landowner is the agricultural enterprise „Ciumai". The relief is quite fragmented, the territory being sectioned by 6 ravines, with a depth of 5-30 m, in which the sand-clay Ploic deposits and Quaternary loess are brought up to date. In the deepest places of the ravines, the canvas also appears. The sector is 2.5 km long and 300-700 m wide. The prevailing soils are part of micellar-carbonate chernozems, in places they are strongly eroded.

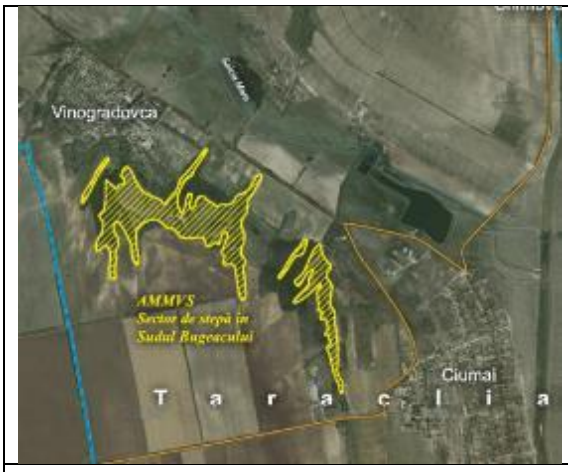


Fig. 5-25: The protected area Bugeac South Steppe

Fig. 5-26: The general view of the protected area

The steppe vegetation is represented by the smooth-stalked Meadowgrass (Poa angustifolia), Common Agrimony (Agrimonia eupatoria), Dropwort (Filipendula vulgaris), Chicory (Cichorium intybus). Fescue occupy most of the steppe and is found on North and North-East slopes (Festuca valesiaca, Salvia nutans, Poterium sanguisorba, Euphorbia stepposa, etc.) and barnyardgrass ocuppy usually steep slopes, with eroded and damaged landslides. In cliffs, on the background of excess moisture, grows some hydrophilic Common Reed (Phragmites australis), Field Horsetail (Equisetum arvense), etc. On the middle slopes of cliffs are individuals shrubs, like Russian Olive (Elaeagnus angustifolia), Hawthorn (Crataegus curvisepala), Wild Rose (Rosa canina), Dogwood (Swida sanguinea). In addition to the gramineae enlightening community steppe - Poa sp. and Festuca sp., there are found multiple xerophyte: Yellow Bluestem (Bothriochloa ischaemum), Lesser Hairybrome (Bromopsis benekenii), Purple-stem Cat's-tail (Phleum phleoides), Crested Wheat Grass (Agropyrion pectinatum), Couch Grass (Elytrigia repens), Yarrow (Achillea ochroleuca), Camphorosma Annua, Field Brome (Bromus arvensis), Austrian Flax (Linum austriacum), Common Wormwood (Artemisia absinthium), Euphorbia salicifolia, Woodland Sage (Salvia nemorosa), Everlasting (Xeranthemum annuum), Willow Leaved Inula (Innula salicina),

Thyme (Tymus marchallianus), Linnaeus (Jurinea multiflora), Silene Latifolia (Melandrium album), Field Eryngo (Eryngium campestre), Yellow Toadflax (Linaria vulgaris), Alyssum Hirsutum (Alyssum hirsutum), Common Milkwort (Polygala vulgaris), Descurainia sophia, Flixweed (Verbascum blattaria), Onobrychis (Onobrychis arenaria). On often shaded and moist these sectors are found: Creeping Cinquefoil, (Potentilla reptans), Argentina Anserina (Potentilla anserina), Glandular Globe-thistle (Echinops sphaerocephalus), Narrowleaved Asparagus (Asparagus tenuifolius), Ground Ivy (Glechoma hirsute), Meadow-rue (Thalictrum minnus), Spring Milletgrass (Milium vernale), Horehound (Marubium peregrinum), Green Foxtail (Setaria viridis), and in cliffs were water flows: Cyperus Sedge (Carex pseudocyperus), Rough Horsetail (Equisetum hiemale), Dropmore Purple (Lythrum virgatum), Dewberry (Rubus caesius), Common Privet (Ligustrum vulgare), Red Dead-nettle (Lamium purpureum), Wild Strawberry (Fragaria vesca), Tuoksukirveli (Chaerophyllum aromaticum). As mushrooms is found: Locust (Russula angiunea) and lichens covering the surface strains trees: 30% by Ciliate Wreath Lichen (Physcia ciliata), 10% by Xanthoria parietina, 5% by Candelariella yolk, 3% by Physcia aipolia, 3% by Pertusaria globulifera, 1% by Palmer sulcata, 1 % by Ramalina fraxinea and 1% by Ramalina roesieri. The rare and characteristic plant and animal species within the Bugeac South Steppe, listed in Republic of Moldova Red Book 3rd edition and in the IUCN Red List.

The plant and animal species classified as endangered (EN), critically endangered (CR) and vulnerable (VU) are as follows:

- Republic of Moldova Red Book:
  - Endangered: Montain Lusca (Ornithogalum oreoides Zahar.), Ornithogalum amphibolum Zahar., Gagea ucrainica Klok., Hazel Snake (Coronella austriaca Laur.), European Honey Buzzard (Pernis apivorus L.);
  - Critically endangered: Yarrow (Achillea ochroleuca), Common Milkwort (Polygala vulgaris), Colchicum triphyllum G.Kunze, Carnation (Dianthus pallidiflorus Ser.), Eremogone Rigida (Eremogone rigida Bieb. Fenzl), Allium guttatum Stev., Catapyrenium squamulosum Arch. Breuss, Cladonia rangiformis Hoffm, Bombus zonatus Smith, Earth Frog (Pelobates fuscus Laur.), Short-toed Snake Eagle (Circaetus gallicus Gmel.), Hen Harrier (Circus cyaneus L.), Montagu's Harrier (Circus pygargus L.), Lesser Spotted Eagle (Aquila pomarina Brehm.), Golden Eagle (Aquila chrysaetos L.), Booted Eagle (Hieraaetus pennatus Gmel.), Saker Falcon (Falco cherrug Gray);
  - Vulnerable: Spring Pheasant's Eye (Adonis vernalis L.), Bellevalia Sarmatica (Bellevalia sarmatica Georgi Woronow), Gypsophila pallasii Ikonn, Chrysopogon gryllus L., Mahaon Buterfly (Papilio machaon L.);
- IUCN Red List: only Saker Falcon (Falco cherrug) is classified as endangered.

5.3.2.6 The Emerald Network in the Republic of Moldova

The Republic of Moldova[93] has protected approximately 8% of its territory as part of the Emerald Network.

[93] Source: https://unbiodiversitylab.org/moldova-increases-protected-areas-in-the-emerald-network-2/#:~:text=The%20Emerald%20Network%20of%20Moldova&text=Within%20these%20eco%2Dregions%2C%20Moldova,to%20protect%2015 2%20Emerald%20Species.

Relative to its size, Moldova has rich biota, with over 80 species of mammals including wild boar, wolves, badgers, wildcats, and roe deer. Approximately 15% of Moldova remains natural vegetation cover. The terrain stretches across three eco-regions: the Central-European mixed forests, the Pontic steppe and the East European Forest steppe. Within these eco-regions, Moldova has recorded 484 rare plant and animal species protected by the State. To protect this diversity, 52 Emerald Sites and 30 Emerald Habitats have been established to protect 152 Emerald Species.

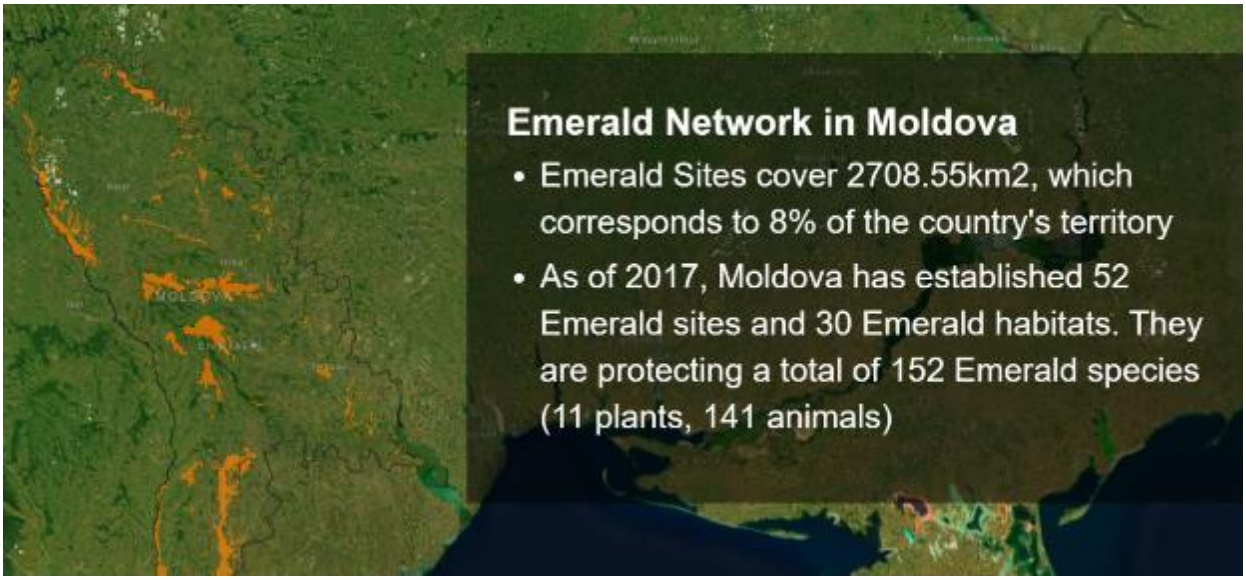


Figure 5-27: Emerald Network Protected Areas (in orange) in the Republic of Moldova[94]

The Emerald Network is a system of protected areas throughout Europe which aims to conserve wild flora, fauna, and their associated natural habitats. It was launched in 1989 by the Council of Europe as part of its work under the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) that came into force on 1 June 1982.

In this regard, the Republic of Moldova partially transposes the provisions of Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and species of wild fauna and flora, published in the Official Journal of the European Union L 206 of 22 July 1992 in the Law no. 94/2007 regarding the Ecological Network and will come in force from November 4, 2023.

The object of the law 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, activities in core areas and ecological corridors and within the perimeter of the core area, the following activities are prohibited:

[94] Source: https://app.mapx.org/static.html?project=MX-PCT-RJS-KW6-SGU-IP1&views=MX-TV4I8-4WE5P-FEP02&storyAutoStart=false&language=en&theme=classic_dark

a) plowing the land, except for its use for forestry purposes;
b) the construction of buildings and installations, infrastructure or temporary objectives, except for those necessary for the operation and protection of the area;
c) the use of chemical substances, except for exceptional natural or man-made situations;
d) exploitation of deposits of useful mineral substances;
e) 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:
a) construction of buildings, infrastructure objectives, communication routes, other activities that prevent or limit the natural migration of animals;
b) 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.

The forest situated at 8.40 km from the project' area is dominated by oak species (Quercus pubescens). There were recorded Maple Tartar (Acer tataricum), Cherry (Cerasus avium), Ash (Fraxinus excelsior) and Acacia (Robinia pseudacacia). Through the shrubs species predominant are Hawthorn (Crataegus curvisepala), Wood Itchy (Euonymus verrucosa), Privet (Ligustrum vulgare), Spindle (Euonymus europaea), etc. The reserve includes a forest of downy oak, pedunculate oak and gorun of the gorun type. Many representatives of the Balkan-Mediterranean flora can be found: mullein, sardine, bulbocodium diversicolor, corylaceus rainbow, bluebell, clover. The landscape is typical of Garnet.

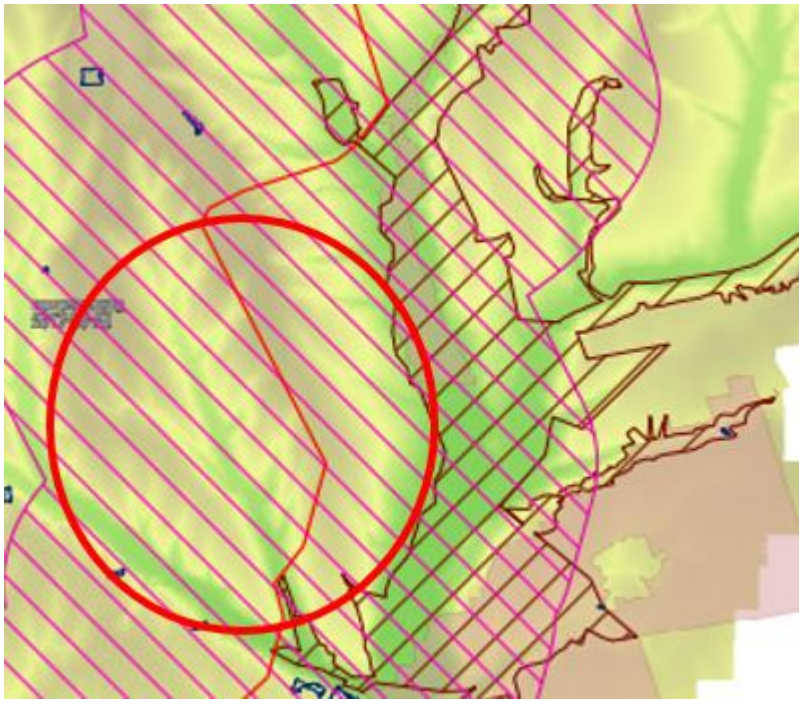
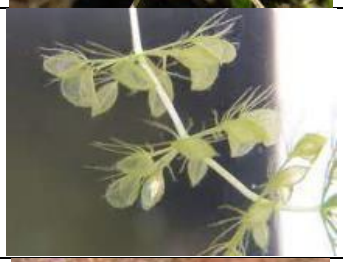


Fig. 5-28: The location of the Emerald Sites versus OHTL

The coridor of the OHTL was selected to avoid the Emerald Sites, but special pracition shall be taken not affect protected areas.

Table 5-4: The list of flora species of European interest for which have been declared Emerald sites

No.	Code	Species		Biogeographic Region	
		Scientific name	Pictures	CON	STE
1	1428	*Marsilea quadrifolia/* Trifoiaș de baltă		-	x
2	1429	*Marsilea strigosa/* Trifoiaș strigos		-	x
3	1516	*Aldrovanda vesiculosa/* Otrățel veziculos		-	x
4	1805	*Jurinea cyanoides/* Jurinea cianoide		-	x
5	1831	*Luronium natans/Luronium natant/* Pătlagină-de-apă-plutitoare		x	-

6	1902	*Cypripedium calceolus/* Papucul-doamnei		x	-
7	1939	*Agrimonia pilosa/* Turicioară păroasă		-	x
8	2093	*Pulsatilla grandis/* Dedițel mare		x	x
9	2116	*Schivereckia podolica/* Șiverechie podoliană		-	x
10	2139	*Genista tetragona/* Drobișor-tetramuchiat		-	x
11	2249	*Carlina onopordifolia/* Sita zânelor		x	-

12	2287	*Colchicum fominii/* Brândușă Fomin		-	x
13	2299	*Fritillaria montana/* Bibilică montană		x	-
14	4087	*Serratula lycopifolia/* Gălbinare licopifolie		x	-
15	4091	*Crambe tataria/* Hodolean tătăresc		x	-
16	4097	*Iris aphylla* ssp. *Hungarica/* Stânjenel de stepă		x	-

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).
Some rare species were found: Asparagus (Asparagus officinalis), Asparagus verticillatus, Crocus reticulatus, Oxlip (Primula Veris).
Moss: Leske polycarpa. Mushrooms: Reishi Mushroom (Ganoderma lucidum), Crab-of-the-woods (Laetiporus sulphureus). Lichens cover the strains surface up to: 25% Evernia prunastri, 15% Parmelia acetabulum, 10% Hypogymnia physodes, 7% Xanthoria parietina, 5% Parmelia capers, 5%, Hypogymnia tubulosa, 3% Ramalina fraxinea and 3% Parmelia sulcata.

5.3.3 Fauna

5.3.3.1 General information

The list of representative fauna species, which have the area of the OHTL route area in the Taraclia district, is presented in the table.

Table 5-5: List of representative species of fauna, which have the areal in the Taraclia district

No.	Scientific name	Protection status					
		International			National		
		Bern Convention	Bonn Convention	CITES	Law no. 1538/ 1998	IUCN Categories	Red Book of RM
MAMMALIA							
1.	*Apodemus agrarius*						
2.	*Apodemus flavicollis*						
3.	*Cricetus cricetus*	+					
4.	*Crocidura leucodon*				+	II	+
5.	*Crocidura suaveolens*				+	IV	
6.	*Erinaceus europaeus*				+	VIII	
7.	*Eptesicus serotinus*				+	IV	
8.	*Felis silvestris*			+	+	III	+
9.	*Lepus europaeus*						
10.	*Lutra lutra*	+		+	+	II	+
11.	*Martes foina*			+	+	VIII	
12.	*Microtus arvalis*						
13.	*Myotis daubentoni*				+	IV	
14.	*Myoxus glis*						
15.	*Pipistrellus*						
16.	*Rattus norvegicus*						
17.	*Sciurus vulgaris*				+	VIII	
18.	*Sorex araneus*				+	VIII	
19.	*Sorex minutus*				+	IV	
20.	*Spermophylus suslicus*						
21.	*Talpa europaea*				+	VIII	
22.	*Vulpes vulpes*			+		VIII	
REPTILIES, AMPHIBIES							
1.	*Anguis fragilis*						
2.	*Bufo bufo*						
3.	*Bufo viridis*	+					
4.	*Bombina bombina*	+			V		
5.	*Coronella austriaca*	+		+	IV	+	
6.	*Emys orbicularis*	+		+		+	
7.	*Lacerta viridis*	+					

8.	*Lacerta agilis*	+					
9.	*Natrix natrix*			+	III		
10.	*Pelobates fuscus*	+			IV	+	
11.	*Rana dalmatina*	+					
12.	*Rana ridibunda*						
13.	*Rana esculenta*						
14.	*Triturus vulgaris*						
15.	*Triturus cristatus*	+			IV	+	
16.	*Hyla arborea*	+					
17.	*Vipera berus*						

SPECIFICATIONS: ***Bern Convention*** *- Convention on the Conservation of European wildlife and natural habitats (Bern);* ***Bonn Convention*** *- Convention on the conservation of migratory species of wild animals (Bonn);* ***CITES****- Convention on international trade in endangered species of wild fauna and flora*

Specific fauna for the District Taraclia for the construction activities of the 400 kV OHTL will not have an important impact on the species of fauna existing in the project site.

5.3.3.1 Local and migratory birds

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, endangered and vulnerable not only on the territory of the RM, but also at the European and world level. Moreover, many characteristic species of birds are at the limit of their areal, being much more vulnerable and endangered than other populations of these species from the RM neighboring states.

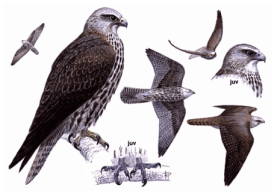
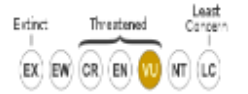
About 14,800 species of animals are reported in the Republic of Moldova. Out of the total number – 281 are species of birds, of which 104 are migratory aquatic species.

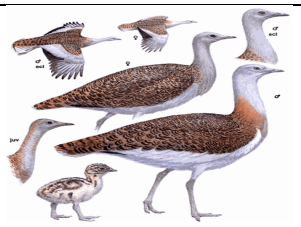
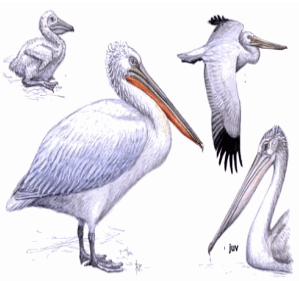
The status of birds' species in the Republic of Moldova, registered at the international level in the Red List of IUCN, sets forth 3 Endangered species, 7 Vulnerable species and 5 Near threatened species. The table no.5-7 provides for the status of birds' species in the Republic of Moldova included in the IUCN List (IUCN Red list of threatened species of birds[95]), being the most endangered species at the world level.

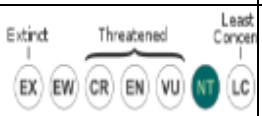
Table nr. 5-6. Status of birds' species in the Republic of Moldova included in the IUCN List 3.1

Species/ Status of the Red Book	Status IUCN	Pictures of species
Endangered species (**EN**) according to IUCN		

[95] www.iucnredlist.org

Species/ Status of the Red Book	Status IUCN	Pictures of species	
Falco cherrug (Șoim dunărean / Saker Falcon) Status: Critically Endangered (CR) Summer guest. In the passage. The population is estimated at 5-10 pairs - nesting.	 Endangered (IUCN 3.1)		
Neophron percnopterus (Hoitar /Egyptian Vulture) Status: Critically Endangered (CR) Population trend: decreasing.	 Endangered (IUCN 3.1)		
Oxyura leucocephala *(*Rață-cu-cap-alb/Headed Ducks Status: Critically Endangered (CR) In the autumn passage. It is now considered an extinct species	 Endangered (IUCN 3.1)		
Vulnerable species (**VU**) according to IUCN			
Anser erythropus (Gârliță-mică/Lesser White-fronted Goose) Status: Vulnerabile (VU) In the spring passage and in the autumn one, winters 30-90 e.g.	 Vulnerable (IUCN 3.1)		
Aquila clanga **(**Great Spotted Eagle) Status: Critically Endangered (CR) Very rare. Population trend: decreasing	 Vulnerable (IUCN 3.1)		
Aquila heliaca (Acvilă-de-câmp/ Eastern imperial eagle) Status: Critic periclitată (CR) Very rare. Population trend: decreasing	 Vulnerable (IUCN 3.1)		
Aythya ferina **(**Rață-cu-cap-castaniu/common pochard*)* Not included in the RB. It nests in spring and autumn. They nest 100-120 pairs, winter 50-200 ex.	 Vulnerable (IUCN 3.1)		

Species/ Status of the Red Book	Status IUCN	Pictures of species	
Branta ruficollis (Gâscă-cu-gât-roșu /Red-breasted Goose) Status: Vulnerabile (VU) Very rare. Population trend: decreasing.	 Vulnerable (IUCN 3.1)		
Falco verspertinus (Vânturelul-de-seara/Red-footed Falcon *)* Status: Vulnerabile (VU) Summer guest, nest. In the passage. The nesting population is estimated at 70-90 pairs	 Vulnerable (IUCN 3.1)		
Otis tarda (Dropie/Great bustard) Status: Critically Endangered (CR) Very rare, endangered species. It no longer nests in the Republic of Moldova.	 Vulnerable (IUCN 3.1)		
Pelecanus crispis (Pelicanul creț/Dalmatian pelican) Status: Critically Endangered (CR) Dozens of specimens in the ponds of the lower course of the Prut that appear episodically in summer and autumn after food from the Danube Delta.	 Vulnerable (IUCN 3.1)		
Near Threatened species (**NT**) according to IUCN			
Aegypius monachus (Cinereous Vulture) Not included in the RB. Accidental species. It does not nest.			
Anthus pratensis *(*Fâsă de luncă/Water pipit Not included in the RB. Summer guest, nest. In the passage.	 Near Threatened (IUCN 3.1)		

Species/ Status of the Red Book	Status IUCN	Pictures of species	
Limosa limosa (Sitar de mal/black-tailed godwit) Not included in the RB. Summer guest, nest. In the passage.	 Near Threatened (IUCN 3.1)		
Turdus iliacus (Sturzul viilor /Redwing***)*** Not included in the RB. In the passage of spring and autumn. Less often a winter guest.	 Near Threatened (IUCN 3.1)		

In the Republic of Moldova there is a list of endangered species, included in the 3rd edition of the Red Book[96] of the Republic of Moldova, published in 2015 and in Law no. 1538/1996 on the Fund of natural areas protected by the state. This red list is much larger than the IUCN Red List, as many species that are common outside of Moldova are rare within its borders. The current edition of the Red Book of the Republic of Moldova includes 62 species of birds from 12 orders.

The main species that wintered in the construction and adjacent areas of the OHL are: Anas platyrhynchos, Anas crecca, Egreta alba, Anser anser, Anser albifrons, Ardea cinerea, Larus ridibundus, Larus cachinnans, Larus canus, Cygnus cygnus, Cygnus olor, Recurvirostra avosetta, Tringa ocropus, Numenius arquata and others.

In the spring, the following migratory species made their presence in the construction and adjacent areas of the OHL in greater numbers: *Philomachud pygnax*, *Limosa limosa, Vanellus vanellus*, *Larus cachinnans*, *Larus ichthyaetus*, *Larus ridibundus*, *Tringa glareola*, *Tringa ochropus*, *Himantopus himantopus, Charadrius hiaticula, Motacilla alba, Tringa nebularia, Tringa erythropus, Ardea alba, Ardea cinerea, Fulica atra*, *Anas acuta*, *Podiceps cristatus*, *Anas platyrhynchos*, *Tadorna tadorna*, *Tadorna ferruginea*, *Aythya ferina*, *Aythya fuligula, Anas crecca*, *Anas clypeata*, *Anas querquedula*, *Anas penelope, Anser anser, Anas acuta, Anas strepera, Aythya nyroca, Phalacrocorax pygmaeus, Phalacrocorax carbo*.

List of target bird species, with national and international protection status, in the OHTL construction/operational areas are presented in the Avian Risk Assessment Reports[97].

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.

[96] https://zoology.md/sites/default/files/inline-files/Cartea%20Rosie_Partea%20II%20Animale_0.pdf
[97] The Avian Risk Assessment Reports are published on the MEPIU's web-site.

In the southern part of Moldova, the three routes get intercrossed, 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.

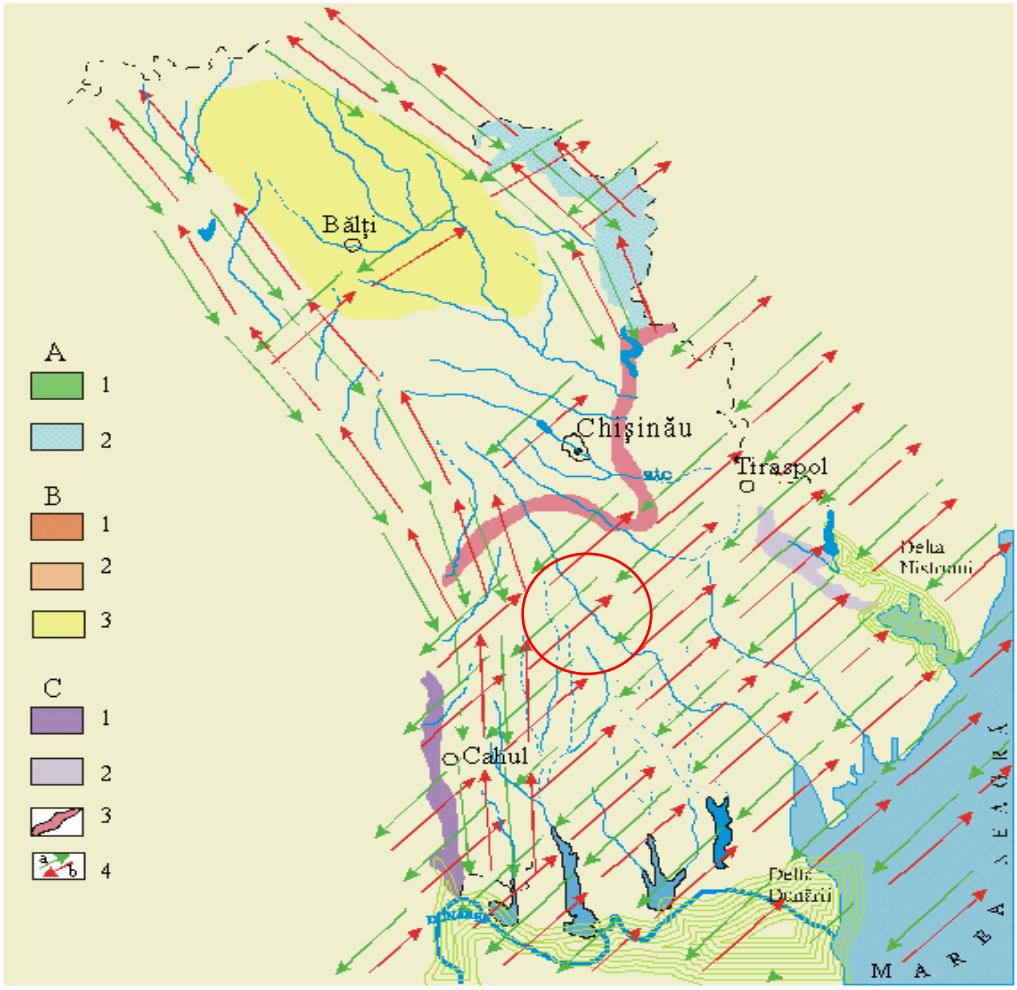


Figure no. 5-29: Bird migration routes

The legend: A - Steppe forest area: forest zoogeographic sectors: 1 - Codrii, 2 - Râbnița;
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

Monitoring the birds' species in the field of the OHL

In order to assess the avian risk in the OHL area, the Avian Risk Assessment and Mitigation Report was developed. According to the monitoring data in the Report, organized during the observation period end of December, 2021 and beginning of September, 2022, were observed in the OHL location area:

- **in the spring/summer/early autumn period:**
  55 bird species - in aquatic, semi-aquatic and palustric ecosystems (total: 3820 specimens)

72 bird species - in forest, steppe and semi-steppe ecosystems (total: 1663 specimens)

- **in the autumn-winter/early spring period:**

23 bird species - in aquatic, semi-aquatic and palustric ecosystems (total: 2652 specimens)
37 bird species - in forest, steppe and semi-steppe ecosystems (total: 1357 specimens).

***Assessing the electrocution risk*:**

Up to 32 birds' species were identified in the analyzed zone, which may be subject to electrocution risk. 12 of them have the status of *Critically endangered (CR),* and 1 – endangered (EN) and 3 – vulnerable (VU) according to their status of rarity in the RM (Red Book, 3rd edition), the list and image of which are provided in Table no.13, and other species have the status of low concern (LC), being mainly some common species for RM.

A lot of electrocutions on the designed high voltage line may occur during the periods with unfavorable weather conditions, during the spring migration and autumn migration time, as a result of the electrical arc formation, when the birds intend to stay on lines or pillars. To limit the mortality risk, as a result of the electrocution during these periods, it is necessary to undertake measures to reduce the impact, hence ensuring observance of environmental and biodiversity conservation conditions imposed by international treaties and set forth in the national legislation.

The majority of electrocutions on the designed high voltage line may occur during the periods with unfavorable weather conditions, during the spring migration and autumn migration time, as a result of the electrical arc formation, when the birds intend to stay on lines or pillars. To limit the mortality risk, as a result of the electrocution during these periods, it is necessary to undertake measures to reduce the impact during the entire the construction/operational period, hence ensuring observance of environmental and biodiversity conservation conditions/policies imposed by international conventions.

Assessing the collision risk

Taking into account that the suggested high voltage line is positioned perpendicularly to the birds' migration way, the analysis of the fields near the OHL, could not exclude none of the birds' species susceptible to collision, even though for some of them the produced impact may be low with no significant negative effects for birds' populations.

Hence, there were identified up to 162 birds' species, which may suffer due to collision with high voltage lines, at a higher or lower scale, with additional 29 species considered to be accidental, rare or very rare for the RM. Out of this number, 15 species are critically endangered, 4 are endangered and 16 are vulnerable, according to their status in the RM (Red Book). It is considered to detail the possible impact for the following species: great white pelican (*Pelecanus onocrotalus*), Dalmatian pelican (*Pelecanus crispus*), black stork (*Ciconia nigra*), saker falcon (*Falco cherrug*) and European roller (*Coracias garullus*).

The number of species which may be victims of collision shows that magnitude of the impact induced by a poorly designed high voltage line, with no measure to reduce the impact. Imposing

measures to reduce impact for these species will cover/ ensure the protection for the rest of migratory, nesting or sedentary species in the analyzed area – birds' species may become victims of collision with high, medium and low voltage lines.

Assessing the risk for habitat loss:

Disturbance of species in their usual breeding, feeding or resting places, as well as along migration routes, at the construction stage of the OHTL, may lead to displacement and exclusion of some species as a result, to the loss or displacement of their habitat. Bird species usually avoid areas in and around the construction zone, for example, due to increased traffic, human presence, as well as noise, dust, pollution, artificial lighting or vibrations caused in during or after the completion of the construction work.

The most affected may be the bird species related to the habitat of aquatic ecosystems such as the genera: Pelicanus, Rallus, Porzana, Fulica and Galinulla, Anas, which may have representatives that nest or pass through the respective habitat. All these species will mainly use the possibilities of moving from the construction area to other bodies of water in the area, such as the Manta and Beleu Lakes, Prut river, etc., a factor that will not affect their numbers in large quantities.

5.4 Cultural Heritage

Important archaeological sites as well as cultural monuments protected by the state are included in the national registers by the National Archeology Agency (NAA).

The National Archeology Agency examined the 400 kV OHTL corridor and issued Notice no. 19 of 07/09/2020. Following the examination of OHTL corridor, eight archaeological sites have been identified that benefit from state protection. The archaeological sites identified are located in the following localities:
1. Valul lui Traian de Jos at the Vulcanesti (pillar no. according to the plan: S1_03,4)
2. village Burlăceni Tumulus 10 (pillar no. according to the plan: 34)
3. village Burlăceni Tumulus 29 (pillar no. according to the plan: 34)
4. village Novosiolovca Tumulus 9 (pillar no. according to the plan: S1_08,76)
5. village Novosiolovca Tumulus 10 (pillar no. according to the plan: 73)
6. village Congaz Tumulus 23 (pillar no. according to the plan: 142)
7. village Ecaterinovca, Valul lui Traian de Sus (pillar no. according to the plan: 128-129)
8**.** village Hansca "Livada" Tumulus (pillar no. according to the plan: 48-49).

According to the Notices issued by the National Agency of Archeology stated that two tumulus/cairns was identified in the Taraclia District. The National Agency of Archeology carried out the procedure regarding the unloading of the archaeological load of all identified tumulus/cairns and issued the Certificates of unloading of the archaeological load specific for the Taraclia District are published on the MEPIU's web-site[98], but a specific excavation procedure

[98] Source: Archaeological Certificates specific for Taraclia District are published on the MEPIU and SE Moldelectrica web-sites.

shall be kept under control by MEPIU at the construction stage. Before starting the construction works, the contractor shall develop a Find Chance Procedure for excavation works and the procedure shall be approved by MEPIU. According to Find Chance procedure in case of the identification of archaeological objects, the contractor shall stop the construction (excavation) activity shall notify MEPIU and the National Archeology Agency.

Two important fragments are preserved on the territory of the Republic of Moldova: the Lower Wall and the Upper Wall. The first (lower wall) is dated to the 3rd century, its construction sometimes attributed to the Gothic king Athanaric. However, recent research has shown that the wave was built by the Romans during the time of Constantine the Great. The wave was a continuation of the wave around today's Galați, stretching 126 km from the town of Vadul lui Isac on the Prut, in Cahul district, to the east in Buceag, stopping at Sasîc lake 50 km west of the Dniester.

The Upper Wall (or Greuthungi's Wall) is attributed to the Goths of Greuthungi (4th century), being built to defend the border against Hun attacks. It stretches for 120 km from the Dniester, in Chițcani, near Tighina, to the Prut, the city of Leova, crossing the current districts of Căușeni, Cimișlia and Leova.

The tumulus represents, according to literature[99], a funerary construction made up of a mound of earth, raised over a grave, which may have one or more overlapping mantles. Initially, they represented several smaller mounds, which were later joined with a mantle of earth, and sometimes they were built with stone constructions that formed rings around them. Depending on construction, the tumuli can have different sizes (as a rule, between 1-3 m height and diameter between 30-60 m). They were raised both in isolation and in groups, which form tumulus necropolises. A burial mound could be intended for a single grave or for several, the number of which it can reach dozens of funerals. One of the main features of this type of monument is the fact that the mounds erected by the earlier communities sometimes were also used by later cultural groups. Thus, in a mound can be found burials from the Eneolithic to the Middle Ages.
According to the Law on Protection of the archaeological heritage (no. 218/2010), Article 18, the local public administration authorities in order to protect the archaeological heritage and comply with the legal provisions in this field, the local public administration authorities have the following main attributions:

a) cooperates with public bodies and institutions with responsibilities in the field of archaeological heritage protection for the implementation and follow-up of compliance with their decisions;

b) ensures the protection of the archaeological heritage resulting from systematic or preventive archaeological research and accidental archaeological discoveries located on the public property of the respective administrative-territorial units and may participate in the co-financing of these activities, under the law;

e) include in the programs of economic-social and urban development, respectively of territorial development, specific objectives regarding the protection of the archaeological heritage; approves urban planning and land development documentation, in accordance with the

[99] https://ibn.idsi.md/vizualizare_articol/70012

specialized opinions issued by the institutions and subdivisions of the Ministry of Culture, and elaborates or modifies such documentation for the purpose of establishing measures to protect the archaeological heritage highlighted by chance, according to the law;

f) collaborates with the National Archaeological Agency, sending it updated information regarding the requests for issuing building permits in areas with identified archaeological heritage;

g) specify in the urban planning certificate the regime of buildings located in areas with identified archaeological heritage;

h) undertake the appropriate administrative measures and notify the owners of lands with archaeological heritage, as well as the holders of the right to administer them, of their obligations to prevent the degradation of accidental archaeological discoveries.

The Specific attributions

In the field of protection of the archaeological heritage located on the lands of the administrative-territorial unit, the mayor, within the limits of the administered territory, has the following specific attributions:

a) orders the suspension of the building permit and the halting of any construction/demolition works in the case of the discovery of archaeological remains, announces, within 48 hours at most, the competent institutions within the Ministry of Culture about this, organizes the guarding of the archaeological discoveries that occur until they are taken over them by qualified specialists;

b) issues, based on and in accordance with the National Archaeological Agency's opinion, the construction/demolition authorization for works in areas with identified archaeological heritage, as well as for works in areas with accidentally highlighted archaeological heritage;

c) ensures the guarding and protection of the archaeological heritage, urgently signaling the competent institutions within the Ministry of Culture about any non-compliance with the law;

d) has updated copies of the National Archaeological Repertory and the Register of Archaeological Sites in the part that refers to the archaeological sites within the area of the administered locality and periodically verifies, based on these documents, the state of preservation of the sites;

e) informs the local population about the archaeological sites within the area of the administered locality, as well as about the measures to protect these cultural assets.

CHAPTER 6: ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT

6.1 General

Considering the location of the 400 kV OHTL corridor in the Taraclia District and the scale of the Project, the characteristics of the receiving natural and human environment it is expected the environmental and social impacts associated with the implementation will be site specific, localised, small scale and mostly temporary, i.e. limited to the construction stage. Such impacts can be mitigated through appropriate site management and construction organization by the contractor. Therefore, the proposed mitigation and enhancement measures are implemented in full, no irreversible and significant negative environmental and social impacts should occur as a result of location, design, construction or operation.

Once the 400 kV OHTL is in operation, the target population will benefit in terms of quality of electricity supply and economic development for Republic of Moldova. The implementation of the Project will strengthen the capacity of Republic of Moldova as a TSO in the region and will stimulate economic growth and generate new job opportunities.

Most commonly the significance of potential Project impacts is assessed based on the magnitude of the predicted effect and the sensitivity of the receiving environment. Once the environmental sensitivity and impact magnitude has been assessed (chapter 1.4), the two criteria are scaled and weighed by means of a matrix, to determine impact significance (Table 6-5). This chapter gives a brief overview of the types of impacts that may occur during construction or operation of the Project and assesses their respective magnitude. Impact significance is then assessed according to the methodology presented in chapter 1 of this report.

6.2 Sensitivity of Impacts during design, construction, operational and decommissioning phases

As mentioned in methodology chapter 1 (1.4), the **Sensitivity** of the receiving environment and social is one among two criteria to assess the **Significance** of impact.

The sensitivity of impact is determined by the following three main criteria:
a) special regime of protection (applicable ES laws of Republic of Moldova and WB's OPs, regulation, programs, etc.);
b) value of receptor (economic – use agricultural land, social – e.g. landscape or recreational, environmental – natural habitat, protected area, etc.);
c) direction & intensity (direction of impact: positive or negative (+ / -); intensity - high, moderate, low, negligible).
a) *special regime of protection*;
b) *value of receptor*;
c) *direction & intensity*.

6.2.1 Valued Environmental and Social Components

Taking into account the description of the initial state of the environment (biophysical and social), the valued environmental and social components are:
- Topography
- Ambient air quality
- Surface water resources (use, pollution)
- Soil resources (destruction, pollution)
- Biological resources (flora, fauna)
- Heritage (natural, cultural)
- Landscape & Aesthetics
- Human Receptors (Local communities, land use, nuisance, living conditions)

6.2.2 Special regime of protection

Within the 400 kV OHTL corridor context, in terms of special regime of protection, the most sensitive receptor of impact is physical, chemical, biological and socio-economic receptors.
Within the 400 kV OHTL corridor passing through the Taraclia District, in terms of special regime of protection, the most sensitive receptor (and so making its value Very High) of impact is – obviously – human receptor.

The second receptor to be mentioned is biodiversity. Despite the fact that the project area is largely modified by human activity (dominated by agricultural lands) there is still a certain probability to encounter within the 400 kV OHTL corridor some species of plants and animals that are legally protected. These are the species included in Republic of Moldova Red Data Book. Their possible presence is associated mainly with the nature monuments, forest nature monuments, Emerald protected sites, aquatic protected areas for birds within the Taraclia District. Thus, the most legally protected receptors are human receptors and biodiversity. This fact has influence on the weight attributed to these two valued environmental and social components when it comes to evaluate the intensity of impact.

6.2.3 Sources of Impacts

According to the Contractor's work plan, the construction of the 400 kV OHTL that could be sources of impact are presented in the table below.

Table 6-1: Source of impact (activities) specific for the project life cycle

DP	DESIGN PHASE
1	Topographical survey (LIDAR)
2	Site Survey (topographical survey and preliminary soil investigation)
3	Site organization in the Comrat District for office and storage area for equipment
4	Development and approval the Plans and Profiles (route approval)
5	Development of the draft Technical Design, the draft Site Specific ESIA/ESMP & the draft RAP specific for the Taraclia District
6	Adaptation and approval process for the DD (PP&TD) by the State Authority for design checking
7	Disclosure of the draft SS/ESIA/ESMP & RAP and organize public consultation
8	Revise the draft SS/ESIA/ESMP & RAP and approve
9	Submit DD, SS/ESIA/ESMP & RAP for issuing the Construction Permit
PP	**PROCUREMENT PHASE (**Submission and approval of Supplier Data -TDS)
1	Procurement Service for performing topographical survey at the design stage
2	Procurement Service for performing detailed soil survey at the design stage
3	Equipment purchase and perform equipment's FAT test (Conductor, earth wire, OPGW, Insulator, Hardware fittings & Accessories, Grounding Material, AWS, etc.)
4	Materials purchase to be used for performing civil works
5	Procurement Service for hiring subcontractor for executing civil works specific for construction stage
6	Procurement Service for hiring subcontractor(s) for installing bird's diverters and nests at the construction stage
CP	**CONSTRUCTION PHASE**
1	Right of way easement in the field
2	Access Road construction (removal of the black fertile soil, storage in a special place, etc.)
3	Detailed Soil Investigation works at each tower
4	Site preparation (stumps removal and transportation)
5	Foundation works execution (remove the black fertile soil & storage in a special place coordinated with LPA)
6	Tower erection works
7	Stringing (TSE Shifting, Pilot Wire Pulling, Conductor Pulling Rough Sag)
8	Installation of the birds' flight diverters
9	Nests Installation for Falcon Falcon (as recommended the Avian Risks Assessment Report specific for construction stage)
10	Testing and Commissioning
11	OHS

OP	OPERATIONAL PHASE
1	Operation of the new 400 kV equipment (stability and solidity of towers, conductor, earth wire, OPGW, Insulator, Hardware fittings & Accessories, Grounding Material, AWS, etc.)
2	Vegetation management
3	Wastes and hazardous materials management
4	Transportation and circulation
5	Purchase of goods/materials and services
6	Access to the new installed OHTL (Servitude contract with land owners)
7	OHS&SG
DS	**DECOMMISSIONING STAGE**
1	Removal of installations

2	Purchase of goods/materials and services
3	Transfer construction land in agricultural circuit
4	Wastes management
5	OHS

6.2.4 Intensity and Direction of Impact

The intensity of impact and its direction as well as possible interaction between components are reflected in the table below:

Table 6-2: Intensity & Direction of impact

Direction: (+) – positive impact; (-) – negative impact *Intensity:* High | Moderate | Low | Negligible

Environmental and Social Components	DESIGN PHASE							
	Topographical survey (LIDAR)	Archaeological Survey in field	Soil Survey	Waste management	Access roads in field	Mobilisation phase (Site organization in Comrat District for office and storage area)	Trees cutting	Use of local and national roads
DESIGN STAGE								
Topography	(-)	None	None	None	None	None	None	None
Ambient air quality	None	(-)	(-)	(-)	(-)	(-)	(-)	(-)
Surface water resources (use, pollution)	None	(-)	(-)	(-)	(-)	(-)	(-)	(-)
Soil resources (destruction, pollution)	None	(-)	(-)	(-)	(-)	(-)	(-)	(-)
Biological Resources (flora, fauna)	None	(-)	(-)	(-)	(-)	(-)	(-)	(-)
Heritages (Natural, Cultural)	None	(+)	(-)	(-)	(-)	(-)	(-)	(-)
Landscape & Aesthetics	None	(-)	(-)	(-)	(-)	(-)	(-)	(-)
Land use	None	(-)	(-)	(-)	(-)	(-)	(-)	(-)
Income and living conditions	None	(-)	(-)	(-)	(-)	(-)	(-)	(-)
OHS&SG	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)

Environ. & Social Components	CONSTRUCTION PHASE								
	ROW Easement	Access Road	Soil Investigation works	Site preparation	Foundation works	Tower Erection works	Stringing	Installation of birds' diverters/nests	Testing and Commissioning
Ambient air quality (noise & vibrations)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
Surface water resources (use, pollution)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
Soil resources (destruction, pollution)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
Biological Resources (flora, fauna)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
Heritages (Natural, Cultural)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
Landscape & Aesthetics	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
Land use	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
Income and living conditions	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
OHS&SG	(-)	(-)	(-)		(-)	(-)	(-)	(-)	(-)

Environ. & Social Components	OPERATIONAL PHASE					
	Operation of the new 400 kV equipment	Maintenance of the new 400 kV equipment	Vegetation management	Wastes & hazardous materials management	Transportation and circulation	Purchase of materials, goods and service
Ambient air quality	(-)	(-)	(-)	(-)	(-)	(-)
Surface water resources (use, pollution)	(-)	(-)	(-)	(-)	(-)	(-)
Soil resources (destruction, pollution)	(-)	(-)	(-)	(-)	(-)	(-)
Biological Resources (flora, fauna)	(-)	(-)	(-)	(-)	(-)	(-)
Heritages (Natural, Cultural)	(-)	(-)	(-)	(-)	(-)	(-)
Landscape & Aesthetics	(-)	(-)	(-)	(-)	(-)	(-)
Land use	(-)	(-)	(-)	(-)	(-)	(-)
Income and living conditions	(+)	(+)	(+)	(+)	(+)	(+)
OHS&SG	(-)	(-)	(-)	(-)	(-)	(-)

Environ. & Social Components	DECOMISSIONING PHASE						
	Development of the technical report for decommissioning process	Development of the SS/ESMP for decommissioning process & organize public consultations	Receive Demolition Authorisation	Purchase of materials/goods & services	Remove old/ obsolete installation	Wastes/ hazardous wastes management	Return the OHTL corridor in the agricultural circuit
Ambient air quality	(+)	(+)	(+)	(+)	(-)	(-)	(+)
Surface water resources (use, pollution)	(+)	(+)	(+)	(+)	(-)	(-)	(+)
Soil resources (destruction, pollution)	(+)	(+)	(+)	(+)	(-)	(-)	(+)
Biological Resources (flora, fauna)	(+)	(+)	(+)	(+)	(-)	(-)	(+)
Heritages (Natural, Cultural)	(+)	(+)	(+)	(+)	(-)	(-)	(+)
Landscape & Aesthetics	(+)	(+)	(+)	(+)	(-)	(-)	(+)
Land use	(+)	(+)	(+)	(+)	(-)	(-)	(+)
Income and living conditions	(+)	(+)	(+)	(+)	(-)	(-)	(+)
OHS&SG	(+)	(+)	(+)	(+)	(-)	(-)	(+)

6.2.5 Summary Assessment of Receptor Sensitivity

The following data presented in the Table 6-2, gives an overview of the sensitivity of the relevant components of the receiving environment and social against possible impacts during design, construction, operation and decommissioning stages.

As it was expected, during the **design stage**, the 3 environmental and social components were given a moderate level of sensitivity:

- land use – specific for executing soil survey and archaeological discharge works have been temporarily affected during the works in the field;
- income and living condition – all crops damages during executing soil survey and archaeological discharge works have been recorded and documented by MEPIU and all affected persons have to be paid for loss of income based on applicable laws of Republic of Moldova;
- OHS & SG - specific for executing soil survey and archaeological discharge works have been kept under control by Contractor and MEPIU.

The rest of the valued environmental and social components were attributed a low level of sensitivity.

As it was expected, during **the construction phase**, the environmental and social components were given a moderate level of sensitivity:

- surface water resources (water abstraction, possible pollution during works, increase of water consumption and waste water generation during construction works would continue to create pressure over the surface water recipients);
- soil resources (impact on fertile soil due to disturbed fertile layer, remove of black fertile soil within the working corridor, storage with permission of LPA of the black soil, remove of stumps, possible pollution, compaction, accidental leakage and spills, etc.);
- landscape and aesthetic (wastes generation, etc.)
- biological resources (likelihood of impacting endangered species during the works still exists – it makes this environmental component sensible enough to be taken into consideration; cutting a number of trees and shrubs is another factor that increases the level of sensitivity of this component);
- human receptors (benefitting from the legal protection of their rights and living standards that will be temporarily affected during the works, having a high value);
- OHS & SG - specific for construction works on site to be controlled by Contractor.

The rest of the valued environmental components were attributed a low level of sensitivity.

As it was expected, during the **operational and decommissioning phases**, the environmental and social components were given a moderate level of sensitivity:

- biological resources (monitor birds within the OHTL corridor);
- OHS & SG - specific for operational and decommissioning works on site to be controlled by Operator.

The rest of the valued environmental components were attributed a low level of sensitivity.

Table 6-3: Sensitivity of the receiving environment against potential Project impacts

Valued environmental / social components	Sensitivity
Design Phase	
Topography	**Low**
Ambient air quality	**Low**
Surface water resources (use, pollution)	**Low**
Soil resources (destruction, pollution)	**Low**
Biological Resources (flora, fauna)	**Low**
Heritages (Natural, Cultural)	**Low**
Landscape & Aesthetics	**Low**
Land use	**Moderate**
Income and living conditions	**Moderate**
OHS&SG	**Moderate**
Construction Phase	
Ambient air quality/noise and vibration	**Moderate**
Surface water resources (use, pollution)	**Moderate**
Soil resources (destruction, pollution)	**Moderate**
Biological Resources (flora, fauna)	**Moderate**
Heritages (Natural, Cultural)	**Moderate**
Landscape & Aesthetics	**Moderate**
Land use	**Moderate**
Income and living conditions	**Moderate**
OHS&SG	**Moderate**
Operational and Decommissioning Phases	
Biological Resources (flora, fauna)	**Moderate**
OHS&SG	**Moderate**

6.3 Magnitude of Impacts

The second criterion to assess impact significance is the **magnitude** of the impact. Impact magnitude is assessed by evaluating two factors:
a) *spatial extent* (spatial extent describes the geographical reach of an impact area or the range within which an effect is observable), and
*b) duration (*describes the length of time during which an impact is observable and also takes other related issues, such as timing and periodicity, into account)

6.3.1 Magnitude of Impacts during Detailed Design Phase

The key construction activities that may adversely affect the natural or the human environment will include but may not necessarily be limited to the following:

Topographical survey (LiDAR) will result in obtaining permit form Civil Avian Authority for performing flights on the selected corridor for the 400 kV OHTL from Vulcanesti to Chisinau. Given the limited scale of this activity there will be no significant permanent impacts on the key characteristics or important ecological functions in the area, nor will important natural habitats be permanently destroyed.

Archaeological survey will inevitably result in performing excavation works in the identified tumulus by the National Archaeological Agency (NAA) based on signed contract service with NAA. Given the limited scale of this activity there will be no significant permanent impacts on soil quality in the area, nor will important natural habitats be permanently destroyed.

Preliminary Soil Survey and wastes management will inevitably result in performing soil survey by taking samples from the different depth and taking samples using drilling installation performed by the Contractor. Given the limited scale of this activity there will be no significant permanent impacts on soil quality in the area, nor will important natural habitats be permanently destroyed.

OHS Risks during detailed design stage were kept under control by the contractor specific for soil survey and by the National Archaeological Agency (the Consultant) for performing archaeological survey. OHS risks may occur locally at any of the survey sites and are of temporary nature. Considering the limited numbers of workers involved the magnitude of potential OHS impacts could range from ***low*** *to* ***medium*** depending on the type of work considered. Overall, the type of survey works involved do bear some risks, however these risks can be considered as more or less 'standard' and can be manged by appropriate site management, training / sensitisation and OHS arrangements.

Access roads in agricultural field will result in construction of the access roads till the location of the planned tower and will result of destroying crops. All damages produced as a result of soil and archaeological investigation shall be paid from the Government contribution and all affected persons shall be included in the Government Decision for paying compensation. All temporary field roads may occur locally at any of the survey sites and are of temporary nature.

Site organisation (office and storage area) prepared by the Contractor in the Comrat District for storage equipment and materials for towers shall be kept under control by the contractor. Identified plot for storage area are a private property and organisation of all legal aspects are responsibility of Contractor. EHS risks may occur locally at the storage and office sites and are of temporary nature. Considering the limited numbers of workers involved the magnitude of potential EHSS impacts could range from ***low*** *to* ***medium*** specific for storage area and office activity. Overall, the type of survey works involved do bear some risks, however these risks can be considered as more or less 'standard' and can be manged by appropriate site management, training / sensitisation and OHS arrangements. Contractor shall develop an EHS Plan and seek approval from the Construction Supervision Engineer and MEPIU. Additionally, firefighting's, first aid, spill and leakage aspects shall be taken into consideration by Contractor for storage area.

Trees cutting shall inevitably result in the loss of trees and vegetation within the 400 kV OHTL corridor with cross the hedgerows, field trees curtains, forests, etc. Given the limited scale of these

losses there will be no significant permanent impacts on the key characteristics or important ecological functions in the area, nor will important natural habitats be permanently destroyed. Land Institute (IPOT) shall identified those area covered with trees and develop plans and based on these land plans

Community health & safety risks shall temporarily occur due to survey traffic and the local presence and movement of heavy machinery for soil survey in public spaces, by temporarily elevated levels of noise and vibrations, etc. Both road traffic and pedestrian traffic will be temporarily exposed to such risks and nuisances. The resulting impacts could be long term or even irreversible if heavy injuries or fatalities happen. The magnitude of community health & safety impact could be high if severe accidents occur. As already mentioned above and considering the nature and scope of the works, however, OHS risks can be assessed as fairly standard. Proper site management arrangements and sensitization of workers can usually reduce the potentially associated risks to acceptable levels.

6.3.2 Magnitude of Impacts during Construction Phase

The key construction activities that may adversely affect the natural or the human environment will include but may not necessarily be limited to the following:

ROW will result in providing access to and possession of the site including special and temporary ROW which are necessary for the construction works. All damages produced as a result of providing access to the site may occur locally at any of the survey sites and are of temporary nature. Overall, the magnitude of the potential impacts resulting from providing access to and possession of the site on local environmental and social receptors – including local communities - is thus classified as **moderate**.

Site clearance will inevitably result in extracting stumps of the trees and another vegetation present on site. The Contractor shall remove the black fertile top soil up to 50 cm within the OHTL corridor and storage in a special place agreed with LPA. The sterile rock shall be temporary storage on a polypropylene film in order not to mix with black fertile soil. Excess of sterile soil or rock shall be removed from the agricultural field previously agreed with LPA or a licensed quarry. Given the limited scale of these losses there will be no significant permanent impacts on the key characteristics or important ecological functions in the area, nor will important natural habitats be permanently destroyed. Impacts of construction of the site clearance in the OHTL corridor will be localized, mostly temporary and none will leave permanent measurable negative changes in the receiving environmental and social environment. Overall, the magnitude of the potential impacts resulting from the various construction activities on local environmental and social receptors – including local communities - is thus classified as **moderate**.

Access roads in agricultural field will result in construction of the access roads till the location of the planned tower and along within the construction corridor and will result of destroying crops and soil compaction. All damages produced as a result of detailed soil investigation for all towers shall be paid from the Government contribution and all affected persons shall be included in the

Government Decision for paying compensation. All temporary field roads may occur locally at any of the survey sites and are of temporary nature.

Impacts of construction of the temporary access roads in the agricultural field will be localized, mostly temporary and none will leave permanent measurable negative changes in the receiving environmental and social environment. Overall, the magnitude of the potential impacts resulting from the various construction activities on local environmental and social receptors – including local communities - is thus classified as **moderate**.

Soil Investigation works for each tower will result in performing soil sampling from each location of the 501 towers and the scope of this investigation is to established exactly the type of foundation taking into consideration the soil category.
Soil investigation impacts will be localized, mostly temporary and none will leave permanent measurable negative changes in the receiving natural or human environment. Overall, the magnitude of the potential impacts resulting from the various construction activities on local environmental and social receptors – including local communities - is thus classified as **moderate**.

Foundation works will result in excavation works and the black top soil shall be removed of up to 50 cm and storage temporary in a special place. Excess of sterile rock/soil shall be removed from the agricultural field and shall avoid mixture of sterile soil with black one. The magnitude of the potential impacts resulting from the various construction activities on local environmental and social receptors – including local communities - is thus classified as **moderate**.

Material and equipment transport*:* sand and gravel needed for the construction of basement shall be purchased from existing commercial suppliers. Material transport shall be via existing roads and close to the actual construction site temporary access roads will no need to be built.
Environmental and social impacts that may typically result from the above construction activities are:

- Localized ambient air pollution through gaseous emissions from construction vehicles & equipment; generation of dust;
- Noise & vibration impacts at the construction sites & off-site (e.g. from construction traffic);
- Impacts on soils (e.g. through accidental spills of hazardous materials such as fuel, oil etc.); soil erosion; generation of construction waste and inappropriate soil management practices incl. soil compaction;
- Temporary local traffic disruptions;
- Impact on community health and safety;
- Impact on employee's health and safety.

All of the above construction impacts will be localized, mostly temporary and none will leave permanent measurable negative changes in the receiving natural or human environment.
Overall, the magnitude of the potential impacts resulting from the various construction activities on local environmental and social receptors – including local communities - is thus classified as **moderate**.

To manage temporary and localized construction impacts of minor or moderate magnitude construction organisation and standard mitigation measures as presented in the ESMP. The scope

of the ESMP of this report shall be appropriate to effectively manage the possible Project impacts and to reduce possible environmental and social risks to acceptable levels.

Tower erection works will result in towers erection works by using works force and equipment for erection equipment. The magnitude of the potential impacts resulting from the tower erection process are specific for local environmental and social receptors – including contracted and subcontracted workforce and local communities - is thus classified as **moderate**. To manage temporary and localized construction impacts of minor or moderate magnitude construction organization and standard mitigation measures as presented in the ESMP. The scope of the ESMP of this report shall be appropriate to effectively manage the possible Project impacts and to reduce possible environmental and social risks to acceptable levels.

Stringing will result in using works force and equipment for stringing equipment. The magnitude of the potential impacts resulting from this activity are specific for local environmental and social receptors – including contracted and subcontracted workforce and local communities - is thus classified as **moderate**. To manage temporary and localized construction impacts of minor or moderate magnitude construction organization and standard mitigation measures as presented in the ESMP. The scope of the ESMP of this report shall be appropriate to effectively manage the possible Project impacts and to reduce possible environmental and social risks to acceptable levels.

Installation of bird's diverters/nests will result in installation of bird's diverters and nest on specific designated towers. The magnitude of the potential impacts resulting from this activity specific for local environmental and social receptors – including contracted and subcontracted workforce and local communities - is thus classified as **moderate**. To manage temporary and localized construction impacts of minor or moderate magnitude construction organization and standard mitigation measures as presented in the ESMP. The scope of the ESMP of this report shall be appropriate to effectively manage the possible Project impacts and to reduce possible environmental and social risks to acceptable levels.

Community Health and Safety (CHS) will result in affecting community health and safety by the construction activity in the field and using local roads for transportation of equipment. The magnitude of the potential impacts resulting from this activity specific for local environmental and social receptors – including contracted and subcontracted workforce and local communities - is thus classified as **moderate**. To manage temporary and localized construction impacts of minor or moderate magnitude construction organization and standard mitigation measures as presented in the ESMP. The scope of the ESMP of this report shall be appropriate to effectively manage the possible Project impacts and to reduce possible environmental and social risks to acceptable levels.

Community health & safety risks shall temporarily occur due to construction traffic and the local presence and movement of heavy machinery in public spaces, by temporarily elevated levels of noise and vibrations, etc. Both road traffic and pedestrian traffic will be temporarily exposed to such risks and nuisances. The resulting impacts could be long term or even irreversible if heavy injuries or fatalities happen. The magnitude of community health & safety impact could be high if severe accidents occur. As already mentioned above and considering the nature and scope of

the works, however, OHS risks can be assessed as fairly standard. Proper site management arrangements and sensitization of workers can usually reduce the potentially associated risks to acceptable levels.

Occupational Health and Safety (OHS) will result in affecting direct and contracted employees on construction site. The magnitude of the potential impacts resulting from the construction activity on construction site – including contracted and subcontracted workforce and local communities - is thus classified as **moderate**. To manage temporary and localized construction impacts of minor or moderate magnitude construction organization and standard mitigation measures as presented in the site-specific Occupational Health and Safety Plan which is a stand-alone document and shall be attached to this document. The scope of the site-specific OHS Plan is to identify, assess risks and establish mitigation measures ESMP of this report shall be appropriate to effectively manage the possible Project impacts and to reduce possible environmental and social risks to acceptable levels.
During construction typical occupational health & safety (OHS) risks could occur as a result of the following:

- Operation and movement of heavy machinery and equipment (e.g. excavator, bulldozer, backhoe, trucks);
- Excavation works > 1.2 m deep;
- Handling of bulky heavy equipment;
- Working at heights;
- Temporary exposure to elevated levels of noise, heat, dust and weather conditions;
- Material and equipment transport,
- Electrical equipment installation and testing.

OHS risks may occur locally at any of the construction sites and are of temporary nature. Considering the limited numbers of workers involved the magnitude of potential OHS impacts could range from ***low*** *to* ***medium*** depending on the type of work considered. Overall, the type of construction works involved do bear some risks, however these risks can be considered as more or less 'standard' and can be manged by appropriate site management, training / sensitisation and OHS arrangements.

Social and Gender (SG) will result in affecting direct and contracted employees on construction site. The magnitude of the potential impacts resulting from the construction activity on construction site – including contracted and subcontracted workforce and local communities - is thus classified as **moderate**. To manage temporary and localized construction impacts of minor or moderate magnitude construction organization and standard mitigation measures as presented in the ESMP.

6.3.2 Magnitude of impacts during the operational phase

The key activities that may adversely affect the natural or the human environment will include but may not necessarily be limited to the following:

- Works associated with maintenance and operation of the new 400 kV OHTL;
- Vegetation management,
- Waste and hazardous materials management;

- Transportation and circulation,
- Purchase of materials /goods and services.

The abovementioned activities are common for the operator as well as for the local population. One can say the local communities are used to such kind of activities and can easily tolerate or adapt to this type of disturbances. The results of these types of activities are: operational noise and vibration. However, these impacts are local and short-term in magnitude.

Operation and maintenance of the 400 kV OHTL will result in presence and operation of equipment, and inspection and maintenance of conductors and towers. The operation and maintenance process will result also in GHG emissions during operation released from the car fuel engine which consumes gasoline or diesel fuel and will result in a negligible increase of indirect GHG emissions in corridor. The magnitude of the operation and maintenance process is considered to be moderate and the beneficiary shall keep under control these aspects.

Vegetation management will result in cutting vegetation under the OHTL and removing vegetal wastes from the site. The magnitude of the vegetation management is considered to be moderate and the beneficiary shall keep under control these aspects.

Waste and hazardous materials management will result in wastes generation and hazardous materials from operation and maintenance of the OHTL. The magnitude of the waste management process is considered to be moderate and the beneficiary shall keep under control these aspects.

Transportation and circulation will result in transportation of goods and materials etc. and circulation of the beneficiary by using national and local roads in order to inspect the OHTL. The magnitude of this activity is considered to be moderate and the beneficiary shall keep under control these aspects.

Purchase of materials/goods and services will result in purchasing process of different good, materials and services

Health & Safety Risks & Impacts

The main OHS risks for the operator's staff will be related to:

- Maintenance electrical works. Risks associated with maintenance activities (electricity, working at height, moving objects, etc.).
- Small accidents (falls, collision with cars, electric shocks). The frequency of these accidents is not expected to be higher than in other medium-sized factories.

These risks can be considered as ‘standard’ and can thus be minimized by appropriate site management, training / sensitisation and OHS arrangements.

6.3.3 Summary of Key Project Activities and Impact Magnitude

The key activities associated with design, construction, operation and decommissioning of the 400 kV OHTL are listed in the Table 6-4 and based on iidentified impacts at the pre-design stage and

the assessment of timing, scale, size, and duration the magnitude of possible environmental impacts and risks identified at the detailed design stage is rated as follows:

Table 6-4: Key Project activities and magnitude of potential impacts

Activity/Effects	
Design phase	**Impact/ Risk magnitude**
Execute topographical survey using LiDAR equipment	**Low (-)**
Performed Archaeological Survey in field	**Low (-)**
Soil Survey	**Low (-)**
Waste management	**Low (-)**
Access roads in field	**Low (-)**
Mobilisation phase (Site organization in Comrat District for office and storage area)	**Low (-)**
Trees cutting	**Low (-)**
Use of local and national roads	**Low (-)**
OHS	**Moderate (-)**

Construction Phase	
ROW Easement	**Low (-)**
Access Road	**Low (-)**
Soil Investigation works	**Low (-)**
Site preparation	**Low (-)**
Foundation works	**Moderate**
Tower Erection works	**Moderate**
Stringing	**Moderate**
Installation of birds' diverters/nests	**Low (-)**
Testing and Commissioning	**Low (-)**
OHS (all construction activities)	**Moderate**
Operation Phase	
Operation of the new 400 kV equipment	**Low (-)**
Maintenance of the new 400 kV equipment	**Low (-)**
Vegetation management	**Low (-)**
Wastes & hazardous materials management	**Low (-)**
Transportation and circulation	**Low (-)**
Purchase of materials, goods and service	**Low (-)**
OHS	**Low (-)**
Decommission Phase	
Development of the technical report for decommissioning process	**Low (+)**
Development of the SS/ESMP for decommissioning process & etc.	**Low (+)**
Receive Demolition Authorisation	**Low (+)**
Purchase of materials/goods & services	**Low (+)**
Remove old/obsolete installation	**Moderate**

Wastes/hazardous wastes management	**Moderate**
Return the OHTL corridor in the agricultural circuit	**Low (+)**

6.4 Impact Significance

As was shown above, there are no environmental or human receptors that would be highly sensitive to potential Project impacts or risks during either design, construction, operation and decommissioning phases, in all cases the receptor sensitivity against potential changes and project impacts / risks would be 'medium' or 'low'.

As shown in the risk assessment matrix, the combination of 'moderate' or 'minor' sensitivities with 'medium' or 'low' impact magnitude cannot result in 'significant' negative impacts.

Table 6-5: Risk assessment matrix

Impact magnitude	**Sensitivity**		
	High	**Medium**	**Low**
Major	High	High	Moderate
Moderate	High	Moderate	Minor
Minor	Moderate	Minor	Negligible

The conclusion of this assessment is thus that potential adverse impacts caused by the 400 kV OHTL construction and operation will be of moderate to low significance or for the certain recipients even negligible.

Impacts of minor or moderate significance (residual impacts) can be effectively controlled by common on-site environmental management, OHS management arrangements and mitigation measures to be adopted during construction and operation of the Project. The identified impacts and the proposed mitigation measurements are provided in the chapter 7 of this report.

6.5 Potentially positive impacts

6.5.1 Construction Phase

The construction of the 400 kV OHTL will strengthen the capacity by connecting the new 400 kV OHTL and improve reliability of the power transmission system in Moldova. The final beneficiaries of the power transmission system are the people of the Republic of Moldova.

6.5.1.1 Biophysical Impacts

The construction activity will have generally negative impact on birds' migration corridor but a specific Avian Risk Assessment has been performed and were identified mitigation measures for having positive impacts on all birds and especially for Saker falcon (Falco cherrug). Specific for

Saker falcon will be installed nests on towers and installation of birds' diverters on towers in compliance with recommendation specified in the Avian Risks Assessment for construction stage.

6.5.1.2 Social Impacts on employment

Construction will create temporary job opportunities over a period that would last approximately 18 months. This will envisage both unskilled and skilled manpower, both man and women mainly recruited within the Taraclia District. The main staff-demanding activities will be civil works as well as associated support jobs. Another positive impact is building capacities – local managers and workers will be learning from applied modern EU works standards – from best environmental practice to Occupational and Health Safety standards. Impact on local economy Construction of adduction main will require local and imported materials and equipment which are likely to be provided by local retailers or wholesalers which will enhance local economy for a short period.

6.5.2 Operational and decommissioning Phases

6.5.2.1 Compliance with applicable ES laws

During operational and decommissioning phases, the Beneficiary shall ensure compliance with all applicable environmental and social laws specific for operational and decommissioning stages. The Beneficiary shall monitor and measure environmental and social performances and report to the stakeholders and all other interested parties.

In order to protect the environmental and social aspects, the beneficiary/operator shall establish, implement, maintain and continually improve an environmental and social management system (ESMS) including the company's processes needed and their interactions for operation and maintenance of the new 400 kV OHTL.

During the decommissioning stage, the beneficiary/operator shall comply with applicable law of Republic of Moldova regarding the demolition process and shall receive Demolition Authorization for the 400 kV OHTL. Identified the environmental and social mitigation measures in the present document shall be take into consideration for development of an ESMP as well as a Technical Design for demolition process.

6.5.2.2 Community Health and Safety

During operational phase the Beneficiary shall ensure that community health and safety are taken into consideration by monitoring and measuring the level of the noise and vibration, using local roads, installing informational panels, warning signs and communication procedure with community.

6.5.2.3 Opportunities for Gender balanced policy promotion

The Company SE Moldelectrica shall take into consideration possibilities on how to address gender concerns by eliminating discrimination against girls and women in employment opportunities process.

6.6 Potentially negative impacts

6.6.1 Construction Phase

6.6.1.1 Physical impact

Ambient Air

Air pollution in the works period will mainly consist of:

- Emission of dust caused by movements and operation of vehicles and heavy machinery (earthworks) as well as wind erosion from open areas and material stockpiles;
- Dust/particulate matter emission during access road construction;
- Exhaust gases produced by fuel combustion in vehicles, moving and stationary machinery.

Noise and Vibration

Noise will be mainly emitted by the work of machinery and equipment. Part of the constructing activities such as construction of towers' foundations will take place in populated area. The 400 kV OHTL will be done in the agricultural field far away from the localities. However, only one village is located within a distance of less than 250 m from the residential areas (able to produce some extra usual background noise). The planned, ordinary construction activities to erect or excavation works will not generate noise that will not exceed 55 dBA sound. This level of noise is the WHO / WB standard for residential zones. The main source of vibration is compaction works during the backfilling of trenches. Taking into consideration that the 400 kV OHTL will pass in the agricultural field the vibration impact will likely be insignificant.

Destruction / Erosion of Soil

Destruction or erosion of natural soil will mainly occur in the construction site located on agricultural field because of topsoil stripping and earthworks. Rain and wind may also cause loss of soil from stockpiles along the foundations excavated.
Soil pollution can be caused by:

(i) Accidental spills of fuels, oils and chemicals (e.g.: lubricants, paints, solvents, resins, acids, etc.) in the storage areas / at the Contractor's yard;
(ii) Accidental dripping or spill in the process of refueling and maintenance of vehicles and machinery at a construction site;
(iii) Infiltration of leachate from uncontrolled waste disposal and construction material;
(iv) Residual concrete from construction or discharged from concrete trucks during the construction.

Pollution of Surface Waters

Pollution of surface waters can be caused by:

- Direct discharge of pollutants or polluted waters into the water courses;
- Transfer of soil pollution to the water courses;
- Transport of soil particles, contaminated or not, mobilized by erosion of soils and stockpiles down to the water courses.

Pollution of groundwater can be most likely caused by transfer of soil pollution to the water table. This pollution can be of highest concern if the water table is used by the population trough wells and springs. Circulation and level of groundwater can be perturbed by earthworks undertaken for foundation works. Given the location of the works, this impact is not likely to affect the water level or yield of domestic wells.

6.6.1.2 Biological Impacts

Flora and fauna

The construction of the 400 kV OHTL will entail removal of a number of trees within the corridor. Perturbation of the Fauna Impact on terrestrial fauna will be mainly caused by:

- The movements of operating machinery, the noise emitted and the presence of workers in the worksites,
- Presence of excavations, open contained and other traps from which the transiting animal cannot escape easily,
- The loss of habitat resulting from tree cutting, vegetation cleaning and topsoil stripping along the 400 kV OHTL construction site.

6.6.1.3 Social impacts

Impact on workers' health and safety

Construction operations under the Project are not supposed to create concerning, highly risky situations such as use of explosives or very hazardous substances. However, the risks remain for workers, especially due to the necessary deep excavations.

The workers involved in the civil works will face usual risks factors associated with construction works such as:

- Crushing or striking by heavy mobile equipment, collision between mobile equipment and light vehicles, being trapped, entangled, or struck by machinery parts;
- Falling from heights, from ladders;
- Unstable excavation walls, collapsing excavations, loose objects on the side walls of excavations;
- Collapsing of excavated holes;
- Falling into deep excavation holes;
- Cutting or stabbing by sharp objects;
- Burns from hot or cold surfaces;
- Excessive exposure to dust, noise, vibration and exhaust fume (confined space),

- Electrical shock or burns;
- Eye impairment from welding;
- Extreme weather (cold/hot) working condition.

All these risks are increased if the workers are not sufficiently skilled, experienced, and trained. At the same time, it is to be especially emphasized that OHS risks are minimized by very strict requirements for OHS for contractors. Contractors and sub-contractors shall have the technical capability to manage the occupational health and safety issues of their employees, extending the application of the hazard management activities through formal procurement agreement[100]. International environmental and social standards are those of the World Bank Group and the Core Labour Standards of the International Labour Organization (ILO) and they are mandatory for implementation.

Impact on Health and Welfare of community

The health, safety and welfare of the local community may be affected by:

- Accidental risks associated with the open trenches, the workers' activities and the operation and movements of the Contractors vehicles and machinery;
- Accidental risks associated with the general road traffic disturbed by the works;
- The discomfort caused by noise emitted by works for the nearby urban dwellers.

Impact on Road traffic

The following impacts on road traffic are likely to occur (i) Traffic disruption on certain local roads and (ii) National traffic disruption on certain national roads.

Impact on private and public assets

The construction works of the 400 kV OHTL will take place also on the private lands and will affect by default the private and public assets by disturbing the fertile soil due to trenching, storage and camping activities. The existing communications could also be affected (e.g. underground electrical or telecommunication cables, gas supply pipes, etc.)

Impact on Natural Heritage

There are few monuments of geological and landscape values nearby the 400 kV OHTL corridor. However, the works will not affect them or threaten their integrity.

Impact on Aesthetics and Landscape

The 400 kV OHTL corridor will pass through the agricultural land mainly. It is a short impact and not supposed to spoil existing landscapes.

[100] The World Bank ESS no. 2 Labor and Working Conditions: https://thedocs.worldbank.org/en/doc/863471511809509053-0290022017/original/EnvironmentalSocialStandardESS2FactSheetWBESF.pdf

Impact on Cultural Heritage

No building of cultural interest is threatened by the Project works. Even if some archaeological artefacts have been fund, there is little chance to find such artefacts when excavating trenches in the agricultural field. However, the there is always a chance to discover archeological/historical objects and the Chance Find Procedure (CFP) will be applied.

6.6.2 Operational and Decommissioning Phases

6.6.2.1 Impact on Workers' Health and Safety

The personnel engaged in operation to maintain the new 400 kV OHTL equipment will have to follow the standard rules of OHS. No special negative impact on workers' health and safety during the operational phase is expected.

6.6.2.2 Physical Impact

Ambient air

Ambient air will not be negatively affected during the operational phase, except normal use of transportation means of the operator.

Impact on ambient noise

No extra noise will be generated by the operation of the new 400 kV OHTL in comparison to the general levels of background ambient noise.

Destruction erosion of soil

The only procedure when soil could be involved as receptor of impacts is excavation during repair interventions. This impact is of negligible magnitude – localized and short term.

Impacts on surface water quality

The operation of the new 400 kV OHTL will not have negative impact on water resources.

6.6.2.3 Biological Impact

Flora and Fauna

No impacts on flora and fauna are expected during the operational phase of the Project. The operator will have to cut vegetation from the OHTL corridor and monitor the birds along the corridor.

6.6.2.4 Social Impact

Impact on Health and Welfare of population

During operation of the 400 kV OHTL no negative impacts on the living conditions of local residents are identified. According to the provisions of the Government Decision no. 514/2002 Regulation regarding the protection of electrical networks, lands located in the protection zones of the electrical networks, will not be taken from the landowners, but will be used by them for agricultural works and other works in strict compliance with Regulation. The owners of the agricultural lands are obliged to take the necessary measures to ensure the integrity of these lines by not planting perennial cultures.

CHAPTER 7: MITIGATION MEASURES

7.1 General Approach

Considering the type and significance of the expected construction, operational and decommissioning impacts described in this document and Detailed Design, the mitigation measures to be implemented under this Project will be mostly the standard ones rather than site specific for construction and operational phases.

7.2 Mitigation Measures for Construction Phase

7.2.1 General

The requirements outlined in this ESMP are presented to assist the Contractors in developing the Contractor's Environmental and Social Management Plans (CESMPs).

The Contractor shall appoint one Health Safety, Environmental and Social Manager (HSSE), whose duties throughout the construction period will be primarily connected to environmental and social management and health and safety of the sites.

The Contractor shall appoint its environmental and social representative (Environmental and Social Manager) to act as the focal point during the construction phase of the project. This representative will coordinate the contractor's environmental and social activities with the construction and supervision engineer and MEPIU and the State Supervisory Agencies (Env. Protection Inspectorate, Territorial Centre for Public Health and State Technical Surveillance Agency, National Archaeological Agency, etc.) and Central Public Authorities (the Ministry of Infrastructure and Regional Development, Ministry of Environment, Ministry of Culture, Ministry of Agriculture, in implementation, supervision, reporting, and follow-up action with regard to the ESMP.

7.2.2 Mitigation of Environmental and Social impacts

7.2.2.1 Soil and subsoil protection

In order to protect geology and soils, minimize and reduce impacts on geology and soils and add new mitigation measures where possible offset the potential effects of the construction of the 400 kV OHTL the following mitigation measures will be implemented:

- Controlled storage of construction materials and waste generated during the construction works on distinct areas of the site;
- Avoidance of ground storage of materials that exposed to rainfall might lead to soil and groundwater aquifer infiltrations (sealing of storage areas);
- Minimize excavation and removal of surface cover in the areas affected by the construction of the 400 kV OHTL's activities;
- Provision of parking areas for the vehicles and equipment involved in Project's works. Work area shall be equipped with absorbent materials and/ or neutralizing substances for rapid intervention in case of accidental spillage of fuel and/or lubricants;

- Deposits of fertile soil resulting from the pits excavation will be placed in secure location with run-off and erosion prevented and close to the working area not affecting adjacent surfaces. During wet weather periods, open excavations will be protected by covering with polythene, off-road driving shall be avoided and ruts shall be repaired as soon as possible;
- Limit, where it is possible, vehicle movements in off-road areas mainly in areas with softer soils and on steeper slopes;
- Steep terrain shall be avoided during the transportation of construction material by using alternative routes or use light vehicles where appropriate. Suitable engineering will be undertaken to ensure that the stability of the slope is maintained, including in areas prone to slides;
- For the transport of construction elements and new equipment shall be used, wherever possible, existing roads and way-leaves;
- The waste and package waste generated during Project's activities will be managed in compliance with the relevant legal provisions (selective collection without contact with soil, water; reuse or disposal);
- Upon completion of works will be undertaken activities for land restoration and revegetation, including re-vegetation/ seeding with native species to complement natural vegetation regeneration and to improve ground cover;
- Detailed site investigation for establishing the final positions of OHTL towers, shall be performed during the construction stage of the Project in order to avoid eroded soils and landslides;
- Excavation of the fertile layer shall be done based in the provision of the DD and removed black soil shall be storage in a special place designated/agreed by/with the LPA and territorial Environmental Protection Inspectorate;
- The sterile soil shall be collected on construction site on a special place in order not to contaminate black agricultural soil and shall be removed from the field to a legal quarry or agree with LPA/EPI to storage the excess of construction soil;
- For construction activity, it is forbidden to open new quarry or to excavated for searching construction materials in the close proximity of construction site or outside the construction site;
- Construction activity shall be planned in a way to reduce the compaction of the black soil and at the end of construction compacted portion of plot shall be ploughed;
- In the wet and rainy weather, it is forbidden to use local and national roads with muddy wheels, wheels shall be washed at the exist form construction site;
- It is forbidden to set a fire for burdening dry vegetation, dry debris or other solid wastes.

7.2.2.2 Hydrology/water resources protection

In order to protect hydrology, minimize and reduce impacts on hydrology and add new mitigation measures where possible offset the potential effects of the construction of the 400 kV OHTL the following mitigation measures shall be implemented:

- Providing portable toilets for the workers involved in construction stage;
- Sign a contract service with the Taraclia District for portable toilets service and clean them 4 times a month;

- Evacuate the content of the mobile toilets (liquid wastes) to the closest wastewater treatment plant and monitor the execution of the requirement;
- Establishment of all construction zones alongside OHTL route at distance from nearby surface waters so that the impact on water to be diminished;
- Establishment, if possible, of tower foundations in dry locations with well consolidated geology, and avoiding wetland areas or floodplains. However, where this was not possible it was chosen drilled columns foundation types an environmental more friendly solution compared to classic solution foundation;
- Minimize work on soft ground in wet weather, wherever possible;
- Keep all engines in good working condition and repair any leaking equipment immediately in special areas;
- Prevent erosion and run-off of sediment from construction works, including roads, to watercourses;
- Controlled storage of construction materials and waste generated during the execution stage on distinct areas of the site;
- Avoidance of ground storage of materials that exposed to rainfall might lead to groundwater aquifer infiltrations (sealing of storage areas);
- Forbidding watercourse crossing by vehicles and machinery during construction
- Forbidding discharges of any water or other materials to watercourses, the storage of soil or other materials close to watercourses;
- Provision of oil/ storm water tank, placed bellow energy transformer on a concrete foundation for protection against transformer oil spill;
- In case of emergency situation, the leakage and spills kits shall be present in the construction site and all pollutant shall be collected and removed from the field;
- Emergency equipment shall be additionally present on construction site to prevent fire and other emergency situations;
- Rain water shall be evacuated from the construction site by covering the excavated pit with polyethylene/poly propylene sheet to avoid accumulation of rain water in the pit.

7.2.2.3 Air protection

In order to minimize and reduce impacts on air quality and identify new mitigation measures where possible offset the potential effects of the construction of the 400 kV OHTL the following mitigation measures shall be implemented:

- Minimize the open excavation areas and proper coordination of excavation activities (excavation, grading, compacting, etc.);
- The number of transport means used for materials and equipment's for OHTL's towers erection are rather small, in line with associated quantities;
- The equipment's used for erection of each OHL's tower shall not work simultaneously and shall respect the sequence works, according with specific technical norms;
- Apply water sprinkling measures to reduce dust, in case of visible dust generated by vehicles or other activities;
- Reduce speeds on unpaved roads until water sprinkling measures are in place;
- Maintain all construction machinery and equipment's in good working condition;
- Vehicles carrying aggregate materials will be sheeted at all times,

- According the Republic of Moldova's applicable environmental law it is forbidden to set the fire in the field or burn solid wastes (paper and cardboard, food, etc.) or dry vegetation and for other reason in the construction site,
- Dyes and solvents in the construction process shall be kept covered all time to avoid excess evaporation in the hot weather,
- Other measures.

7.2.2.4 Climate change

In order to minimize and reduce impacts on climate change and identify new mitigation measures where possible offset the potential effects of the construction of the 400 kV OHTL the following mitigation measures shall be implemented:

- Receive endorsements from all stakeholders for Basic Design (corridor) and approval received from the Beneficiary and LPAs by taking into consideration the main climate - meteorological condition at the construction works to protect OHTL towers, access route the OHTL, avoid the trees area, protect the river banks and lakes, etc.;
- In the construction process to avoid soils and landslides by covering excavated pit with covers in order to avoid water accumulation,
- An Emergency Response Plan shall be developed for potential risks and hazards (natural hazards and extreme events that may include floods, storms, lighting, landslides, soil erosion, seismic events) in order to protect the public health, safety and environment when hazards may create an emergency situation,
- A communication plan in case of emergency situation shall be developed and tested with contractor's personnel and local community,
- Site Organization shall not be located in the flooded area and eroded soil,
- For Site organization located in the UTA Gagauzia, the Contractor shall develop an OHS Plan and Environmental and Social Plan specific for this activity.

7.2.2.5 Noise and vibration

In order to minimize and reduce impacts on noise and vibration and identify new mitigation measures where possible offset the potential effects of the construction of the 400 kV OHTL the following mitigation measures shall be implemented:

- Use of vehicles and machines with a high degree of quietness, equipped with vibration damper with regular technical inspections carried out to date;
- Compliance with daily working hours;
- During day time, procedures will be established to reduce the noise causing nuisance and disturbances, both for workers and local communities;
- Activities during the holidays, nights or at the weekend will be avoided;
- Movement of the vehicles transporting material and equipment on dirt or ballasted with roads with speeds up to 20 km/h,
- The Contractor shall comply with the provisions of the Traffic Management Plan approved by MEPIU.

7.2.2.6 Natural protected areas

In order to minimize and reduce impacts on the natural protected areas the new identified mitigation measures where possible offset the potential effects of the construction of the 400 kV OHTL the following mitigation measures shall be implemented:

- The 400 kV OHTL Vulcănești - Chișinău route will not cross protected areas as follow: only the line between towers 141 – 142 will pass near the Stepa Bugeacului Emerald site (near to Borceag village) and about 10 km of line will cross Purcari – Etulia IBA (towers 01- 18).
- Performed inspection at the end of construction stag in order to check if all recommended protection devises are installed on the recommended poles by the contractor;
- Comply with requirements established in the Avian Risks Assessment Report specific for construction stage and check if all recommended measures are present on construction site by the Contractor.

7.2.2.7 Electrocution collision

In order to minimize and reduce impacts from electrocution collision the new identified mitigation measures where possible offset the potential effects of the construction of the 400 kV OHTL the following mitigation measures shall be implemented based on the Avian Risks Assessment Report specific for construction stage:

1. Birds flaps will be positioned 20 - 25 m distance on line between the towers specified in the Avian Risk Assessment Report;
2. Bird guards against electrocution in air gaps and on outer phases;
3. Birds flaps will be positioned 20 - 25 m distance on line between the towers specified in the Avian Risk Assessment Report;
4. Bird guards against electrocution in air gaps and on outer phases.
5. Birds flaps will be positioned 25 m distance on line between the towers specified in the Avian Risk Assessment Report;
6. Bird guards against electrocution in air gaps and on outer phases.

7.2.2.8 Forested land protection

In order to minimize and reduce impacts on the forested lands the new identified mitigation measures where possible offset the potential effects of the construction of the 400 kV OHTL the following mitigation measures shall be implemented:

- An appropriate vegetation management plan shall be developed in order to minimize the trees cutting within the working corridor and to ensure a proper management of cutting trees;
- For loss of trees within the working corridor, adequate compensation shall be established, by planting the same trees species in locations agreed with relevant authorities;
- The trees cutting will be outside the breeding and nesting period in the forests;
- It is forbidden to collect plants for the forest and other goods from the forest;
- It is forbidden to set the fire or burn the dry vegetation and debris;
- The Contractor shall remove the trees stumps and pass to the LPA;
- Trees shall be cut and removed by the SE Moldsilva and woods are the property of Moldsilva (trees from forests);

- In the vicinity of forest, it is forbidden to make noise or use horn or another source of noise;
- The trees cutting process is a subject for authorization from the Environmental Agency based on trees evaluation by the SE Moldsilva.

7.2.2.9 Access to land and land use

In order to minimize and reduce impacts on access to land and land use the identified mitigation measures where possible offset the potential effects of the construction of the 400 kV OHTL the following mitigation measures shall be implemented:

- Approve the corridor for the 400 kV OHTL (Basic Design) and based on this document identify affected persons and develop RAP;
- Approve detailed design based on approved Basic Design and positioning of towers in order to minimize impact on access to land;
- Inform stakeholders and affected people in the area about the construction activities and restriction in terms of access to land well before actual construction is begun;
- Plan the construction time with consideration to season and agricultural activities to minimise negative impacts linked to affected agriculture production;
- Disclose and consult RAP;
- Approve the corridor for the 400 kV OHTL through a GD (Cutt-off Date);
- Provide compensations for expropriated land and loosed incomes to all affected persons according to the RAP before commencing any construction works.

7.2.2.10 Industrial production and jobs

In order to minimize and reduce impacts on industrial production and jobs the new identified mitigation measures where possible offset the potential effects of the construction of the 400 kV OHTL the following mitigation measures shall be implemented:

- The contractor shall develop a Human Resource Procedure for promoting safety and health at work, the fair treatment, nondiscrimination and equal opportunity of all workers, for protecting all workers (including vulnerable workers such as women, persons with disabilities, children and migrant workers, contracted workers, community workers and primary supply workers, as appropriate), for preventing the use of all forms of forced labor and child labor, for supporting the principles of freedom of association and collective bargaining of project workers in a manner consistent with applicable laws of the Republic of Moldova and for providing project workers with accessible means to raise workplace concerns.;
- Develop and implement a communication procedure for reporting to the Construction Supervision Engineer and MEPIU/ME all aspects regarding Human Resource Policy implementation on site;
- Report all incidents and accident immediately to the Construction Supervision Engineer and MEPIU/ME.

7.2.2.11 Societal services and infrastructure

In order to minimize and reduce impacts on societal services and infrastructure the new identified mitigation measures where possible offset the potential effects of the construction of the 400 kV OHTL the following mitigation measures shall be implemented:

- Careful identification, detection and marking of existing infrastructure that is within the safety corridor during the construction, including underground cables, pipelines and other.
- Ensure that any roads or other infrastructure used/affected during construction phase is not left in worse condition after construction phase;
- Develop a communication procedure based on SEP and communicate with all stakeholders regarding terms of the project implementation;
- Install in the construction site an informational panel with all the project's information and channel of communication with contractor, CSE, MEPIU and Beneficiary;
- At the starting of the construction activity invite all local specific stakeholder in order to inform with working plan and specific tasks for project implementation,
- All technical documents shall be present in the construction site and shall be present at the requires of stakeholders;
- Develop a Traffic Management Plan, the plan shall be approved by CSE and MEPIU and contractor shall comply with provision of this plan;
- Any incidents/accidents shall be reported to CSE and MEPIU immediately with a Notification Report and after that incident/accident shall be investigated by Contractor and investigation results shall be submitted to CSE and MEPIU.

7.2.2.12 Scenery and visual amenity

In order to minimize and reduce impacts on scenery and visual amenity the new identified mitigation measures where possible offset the potential effects of the construction of the 400 kV OHTL the following mitigation measures shall be implemented:

- In final detailed design of OHTL route consideration of landscape formation should be taken to avoid unnecessary exposure of the towers on top of hills;
- Develop Basic Design for the corridor for 400 kV OHTL and approve it by the Beneficiary and stakeholders;
- Develop detailed design based on recommended requirements and approved by the Beneficiary and State Authorities for technical checking and approval;
- Endorse detailed design by the National Public Health Agency based on notice issued for this project.

7.2.2.13 Electric and magnetic fields (Community Health & Safety)

In order to minimize and reduce impacts from electric and magnetic fields the new identified mitigation measures where possible offset the potential effects of the construction of the 400 kV OHTL the following mitigation measures shall be implemented:

- Follow-up that workers and contractors comply to safety regulations provided in the approved Contractor's HSP;

- Ensure that contractor's and subcontractor's workers are healthy and able to work in the construction site;
- Ensure that zones with high risks of electric and magnetic fields are market and delimitated accordingly;
- Emergency response planning is required to be fulfilled by the contractor for emergency aspects;
- Ensure that the electric and magnetic field is measured by the contractor accordingly within inside and outside of the OHTL corridor;
- Ensure that fist aids kits and medical evacuation procedure and plan are present on construction site.

7.2.2.14 Public and occupational health

In order to minimize and reduce impacts on public and occupational health the new identified mitigation measures where possible offset the potential effects of the construction of the 400 kV OHTL the following mitigation measures shall be implemented:

- Ensure implementation and compliance with the Action Plan on Occupational Health and Safety.
- Preparation of Emergency Response Plan for construction site;
- Preparation of code of conduct to be adhered to by personnel and subcontractors involved in construction work linked to the OHTL;
- Preparation of Traffic Management Plan with defined routines for traffic and transportation to construction sites, especially considering safety issues linked to passing settlements, avoiding schools and close to habited places;
- Preparation of Training Plan to ensure that contractor's and subcontractor's workers are aware and comply with existing safety regulations and action plans;
- Preparation of Community HSP to ensure that community is safety during the project's implementation and sources of water, soil, air is not polluted by the construction works;
- Participate as an attendee at the SIMC meeting and take measures to eliminate nonconformities identified by the community representative in the field.

7.2.2.15 Cultural and archaeologic heritage

In order to minimize and reduce impacts on cultural heritage the new identified mitigation measures where possible offset the potential effects of the construction of the 400 kV OHTL the following mitigation measures shall be implemented:

During the construction stage, several good construction practices may be applied in order to mitigate cultural heritage aspects, such as:

- The Contractor shall develop a Chance Finds procedure to ensure that workers and subcontractors have proper routines to identify and take action whenever unknown/new archaeological artefacts or sites are found during construction work;
- The Contractor shall develop a Chance Finds Procedure and ensure that workers and subcontractors have proper communication channel to report to contractor staff, CSE, MEPIU and stop construction activity on construction site in order to safeguard already identified archaeological artefacts and sites.

- The Contractor shall ensure that a Training Plan is developed and Chance Finds procedure is relevant for employees and subcontractors in above mentioned protocols.

7.3 Operational Phase

7.3.1 General

The requirements outlined in this ESMP are presented to assist the Operator in developing the Operator's Environmental and Social Management System and Plans developed based on Global Industrial International Standards (ISO 14001, ISO 45001 and ISO 9001).

The Operator or Beneficiary shall appoint Environmental and Social (HS) Specialists for establishing, maintaining and continually improve ES management System, whose duties throughout the operational period shall be primarily connected with compliance with applicable to environmental and social laws of the Republic of Moldova and IFIs environmental and social requirements.

The Operator shall comply with applicable environmental and social requirements of Republic of Moldova and shall receive all permits and authorizations for their provided services and quality of their product.

7.3.2 Mitigation of Environmental and Social Impacts

7.3.2.1 Air protection

The mitigation measures proposed to minimize and reduce impacts on air quality for operation and maintenance of the new 400 kV OHTL are the following:

- Maintain all vehicles used for OHTL inspection and maintenance activities in good working condition;
- Measurements campaigns for ozone concentration among specific areas nearby the OHTL route are recommended to be performed in order to compare the measurement results with legal limits,
- According the Republic of Moldova's applicable environmental law it is forbidden to set the fire in the field or burn solid wastes (paper and cardboard, food, etc.) or dry vegetation and for other reason in the field site,
- Dyes and solvents in the O&M process shall be kept covered all time to avoid excess evaporation in the hot weather,
- The OHTL corridor shall be kept free of dry vegetation and it is forbidden to burn vegetation and debris in the field,
- It is forbidden to ignite the oil leakage and spills from vehicle in the field, these shall be collected in special bins and evacuate by the operator personnel,
- Other mitigation measures identified at the risk assessment process within ESMS.

7.3.2.2 Climate change

The mitigation measures proposed to minimize and reduce impacts on climate change for operation and maintenance of the new 400 kV OHTL are the following:

- Regular inspection of OHTL route as part of maintenance program shall be performed;
- Emergency response planning is required for natural hazards and extreme events (floods, storms, lighting, landslides, seismic events, etc.),
- To monitor the soil erosion and landslides on the OHTL corridor and in case of emergency report the State Authority;
- Other mitigation measures identified at the risk assessment process within ESMS.

7.3.2.3 Noise and vibration

The mitigation measures proposed to minimize and reduce impacts on noise and vibration for operation and maintenance of the new 400 kV OHTL are the following:

- The noise and vibration from OHTL line shall be reduced by using constructive methods (antivibrators and spacers),
- Measure the noise and vibration inside of the OHTL corridor and outside the corridor;
- Other mitigation measures identified at the risk assessment process within ESMS.

7.3.2.4 Vegetation management

The mitigation measures proposed to minimize and reduce impacts on the vegetation for operation and maintenance of the new 400 kV OHTL are the following:

- Integrated vegetation management approach shall be implemented consisting in removal of tall growing tree species and the encouragement of low-growing shrubs;
- It is forbidden to cut trees without cutting authorization issued by the Environmental Agency;
- It is forbidden to make noise in the close proximity of the forest in the period of the birds' breeding and nesting period;
- It is forbidden to cut dry trees and set fire in the forest or in the hedgerows;
- It is forbidden to collect plants and other goods from the forest;
- Other mitigation measures identified at the risk assessment process within ESMS.

7.3.2.5 Electrocution collision

The mitigation measures proposed to minimize and reduce impacts on the natural protected areas for operation and maintenance of the new 400 kV OHTL are the following:

- Regular inspection of OHTL route as part of maintenance program shall be performed;
- Emergency response planning is required for natural hazards and extreme events (floods, storms, lighting, landslides, seismic events, etc.),
- Comply with requirements established in the Avian Risks Assessment Report specific for operational stage by monitoring and measurements of the death birds by the Beneficiary SE Moldelectrica and report to the Environmental Agency annually;
- Establish a communication procedure with Environmental Agency for environmental performances reporting;

- Other mitigation measures identified at the risk assessment process within ESMS.

7.3.2.6 Electric and magnetic fields

The mitigation measures proposed to minimize and reduce impacts from electric and magnetic fields during operation and maintenance of the new 400 kV OHTL are the following:

- Regular inspection of OHTL route as part of maintenance program shall be performed;
- Emergency response planning is required to be fulfilled by the operator for emergency aspects;
- Personnel working with operation and maintenance of OHTL shall be informed and trained in safety procedures linked to work in environments where they are exposed to electric - and magnetic fields;
- Ensure that follow-up routines are in place and implemented to document that workers and contractors comply with safety regulations. In case of deviations ensure that actions are taken to rectify the situation;
- Ensure that the electric and magnetic field is measured by operator accordingly within inside and outside of the OHTL corridor;
- Develop a reporting mechanism within ESMS and inform workers regarding the result of EM measurement;
- Other mitigation measures identified at the risk assessment process within ESMS.

7.3.2.7 Occupational health and safety

The mitigation measures proposed to minimize and reduce impacts public and occupational health during operation and maintenance of the new 400 kV OHTL are the following:

- Ensure implementation and compliance with the Action Plan on OHS;
- Keep Emergency Response Plan updated and relevant for operation and maintenance;
- Routines for traffic and transportation linked to operation and maintenance of the OHTL is in place. Special attention should be given to safety when passing settlements, schools and close to habited places.
- Routines to follow-up and to ensure that all workers and contractors are aware and comply with existing safety regulations and action plans.
- Ensure that access to the towers is restricted and that safety measures to avoid people climbing towers are functional;
- Information material on towers displaying warning signs and instructions on what to do in case of accidents.

7.4 Decommissioning Phase

7.4.1 General

The requirements outlined in this ESMP are presented to assist the Beneficiary/Operator in the decommissioning process to be in compliance with applicable laws of Republic of Moldova.

During the decommissioning stage, the operator shall comply with applicable law of Republic of Moldova regarding the demolition process and shall receive Demolition Authorization for the 400

kV OHTL. Identified the environmental and social mitigation measures in the present document shall be take into consideration for development of an ESMP as well as a Technical Design for demolition process.

7.4.2 Mitigation of Environmental and Social Impacts

The Operator or Beneficiary shall develop the following documents specific for decommissioning process:

- Technical report,
- Development of the Site specific ESMP for decommissioning process,
- Organize public consultations and inform community and LPA,
- Receive Demolition Authorization,
- Purchase of materials/goods & services,
- Remove old/obsolete installation,
- Manage wastes and hazardous wastes,
- Manage OHS risks,
- Return the OHTL corridor in the agricultural circuit.

Environmental and Social Management Plans (ESMPs) have been prepared specific for construction and operational stages as part of the present ESIA in order to define the implementation mechanism for the above-described mitigation measures and preventive actions.

In the table 7-1 is presented mitigation measures for Construction Stage.

Table 7-1: Mitigation measures presented in the ESMP for Construction Phase

Type of Impact & Potential Negative Impact	Environmental & Social mitigation measures	Location	Executing agency	Supervising agency	Budget	Timing
ENVIRONMENT						
PHYSICAL ENVIRONMENT						
Impacts on geology and soils	The Contractor shall develop a Contractor's ESMP taking into consideration mitigation measures presented in the chapter 7.2	Corridor of 400 kV passing through the Taraclia District	Contractor	CSE/MEPIU/ME LPA II Taraclia IPM Taraclia CSP Taraclia AST, ANA	Contractor's Budget	Contractor's work plan
Impacts on hydrology	The Contractor shall develop a Contractor's ESMP taking into consideration mitigation measures presented in the chapter 7.2	Corridor of 400 kV passing through the Taraclia District	Contractor	CSE/MEPIU/ME LPA II Taraclia IPM Taraclia CSP Taraclia AST, ANA	Contractor's Budget	Contractor's work plan
Impacts on air quality	The Contractor shall develop a Contractor's ESMP taking into consideration mitigation measures presented in the chapter 7.2	Corridor of 400 kV passing through the Taraclia District	Contractor	CSE/MEPIU/ME LPA II Taraclia IPM Taraclia CSP Taraclia AST, ANA	Contractor's Budget	Contractor's work plan
Impacts on climate change	The Contractor shall develop a Contractor's ESMP taking into consideration mitigation measures presented in the chapter 7.2	Corridor of 400 kV passing through the Taraclia District	Contractor	CSE/MEPIU/ME LPA II Taraclia IPM Taraclia CSP Taraclia AST, ANA	Contractor's Budget	Contractor's work plan
Impacts on noise and vibration	The Contractor shall develop a Contractor's ESMP taking into consideration mitigation measures presented in the chapter 7.2	Corridor of 400 kV passing through the Taraclia District	Contractor	CSE/MEPIU/ME LPA II Taraclia IPM Taraclia CSP Taraclia AST, ANA	Contractor's Budget	Contractor's work plan
BOLOGICAL ENVIRONMNET						

Type of Impact & Potential Negative Impact	Environmental & Social mitigation measures	Location	Executing agency	Supervising agency	Budget	Timing
Impacts on natural protected areas	The Contractor shall develop a Contractor's ESMP taking into consideration mitigation measures presented in the chapter 7.2	Corridor of 400 kV passing through the Taraclia District	Contractor	CSE/MEPIU/ME LPA II Taraclia IPM Taraclia CSP Taraclia AST, ANA	Contractor's Budget	Contractor's work plan
Impacts on electrocution collision	The Contractor shall develop a Contractor's ESMP taking into consideration mitigation measures presented in the chapter 7.2	Corridor of 400 kV passing through the Taraclia District	Contractor	CSE/MEPIU/ME LPA II Taraclia IPM Taraclia CSP Taraclia AST, ANA	Contractor's Budget	Contractor's work plan
Impacts on forested lands	The Contractor shall develop a Contractor's ESMP taking into consideration mitigation measures presented in the chapter 7.2	Corridor of 400 kV passing through the Taraclia District	Contractor	CSE/MEPIU/ME LPA II Taraclia IPM Taraclia CSP Taraclia AST, ANA	Contractor's Budget	Contractor's work plan
SOCIO-ECONOMIC ENVIRONMENT						
Impacts on access to land and land use	The Contractor shall develop a Contractor's ESMP taking into consideration mitigation measures presented in the chapter 7.2	Corridor of 400 kV passing through the Taraclia District	Contractor	CSE/MEPIU/ME LPA II Taraclia IPM Taraclia CSP Taraclia AST, ANA	Contractor's Budget	Contractor's work plan
Impacts on income	The Contractor shall develop a Contractor's ESMP taking into consideration mitigation measures presented in the chapter 7.2	Corridor of 400 kV passing through the Taraclia District	Contractor	CSE/MEPIU/ME LPA II Taraclia IPM Taraclia CSP Taraclia AST, ANA	Contractor's Budget	Contractor's work plan
Impacts on industrial production and jobs	The Contractor shall develop a Human Resource Procedure within the Contractor's ESMP taking into consideration mitigation measures presented in the chapter 7.2	Corridor of 400 kV passing through the Taraclia District	Contractor	CSE/MEPIU/ME LPA II Hincesti IPM Hincesti CSP Hincesti	Contractor's Budget	Contractor's work plan

Type of Impact & Potential Negative Impact	Environmental & Social mitigation measures	Location	Executing agency	Supervising agency	Budget	Timing
				AST, ANA		
Impacts on societal services and infrastructure	The Contractor shall develop a Traffic Management Plan within the Contractor's ESMP taking into consideration mitigation measures presented in the chapter 7.2	Corridor of 400 kV passing through the Taraclia District	Contractor	CSE/MEPIU/ME LPA II Taraclia IPM Taraclia CSP Taraclia AST, ANA	Contractor's Budget	Contractor's work plan
Impacts on economic conditions in the region	The Contractor shall develop a Human Resource Procedure within the Contractor's ESMP taking into consideration mitigation measures presented in the chapter 7.2 and engage local workforce	Corridor of 400 kV passing through the Taraclia District	Contractor	CSE/MEPIU/ME LPA II Taraclia IPM Taraclia CSP Taraclia AST, ANA	Contractor's Budget	Contractor's work plan
Potential impacts on demographics	The Contractor shall develop a Contractor's Social & Gender Management Plan taking into consideration mitigation measures presented in the chapter 7.2	Corridor of 400 kV passing through the Taraclia District	Contractor	CSE/MEPIU/ME LPA II Taraclia IPM Taraclia CSP Taraclia AST, ANA	Contractor's Budget	Contractor's work plan
Potential impacts on worker health, safety, and welfare	The Contractor shall develop the Contractor's own OHS Plan taking into consideration mitigation measures presented in the site specific OHS Plan developed at the DD stage	Corridor of 400 kV passing through the Taraclia District	Contractor	CSE/MEPIU/ME LPA II Taraclia IPM Taraclia CSP Taraclia AST, ANA	Contractor's Budget	Contractor's work plan
Impact of social tension (due to political situation in country)	The Contractor shall observe and use in the construction process communication criterion established in Stakeholders Engagement Plan for an open and transparent process with regard to construction activity on site. Participate at the SIMC meeting as attendee party.	Corridor of 400 kV passing through the Taraclia District	Contractor with support of MEPIU	CSE/MEPIU/ME LPA II Taraclia IPM Taraclia CSP Taraclia AST, ANA	Contractor's Budget	Contractor's work plan
Impacts on scenery and visual amenity	The Contractor shall develop a Contractor's ESMP taking into consideration mitigation measures presented in the chapter 7.2	Corridor of 400 kV passing through the Taraclia District	Contractor	CSE/MEPIU/ME LPA II Taraclia IPM Taraclia	Contractor's Budget	Contractor's work plan

Type of Impact & Potential Negative Impact	Environmental & Social mitigation measures	Location	Executing agency	Supervising agency	Budget	Timing
				CSP Taraclia AST, ANA		
Impacts from electric and magnetic fields	The Contractor shall develop a Contractor's OHS Plan taking into consideration mitigation measures presented in the Site Specific OHS Plan and chapter 7.2	Corridor of 400 kV passing through the Taraclia District	Contractor	CSE/MEPIU/ME LPA II Taraclia IPM Taraclia CSP Taraclia AST, ANA	Contractor's Budget	Contractor's work plan
Impacts on public and occupational health	The Contractor shall develop a Contractor's own Health and Safety Plan within the Contractor's ESMP taking into consideration mitigation measures presented in chapter 7.2 The Contractor shall develop a Contractor's Social Management Plan taking into consideration mitigation measures presented in the chapter 7.2	Corridor of 400 kV passing through the Taraclia District	Contractor	CSE/MEPIU/ME LPA II Taraclia IPM Taraclia CSP Taraclia AST, ANA	Contractor's Budget	Contractor's work plan
Impacts on cultural heritage	The Contractor shall develop a Find Chance Procedure within the Contractor's ESMP taking into consideration mitigation measures presented in the chapter 7.2	Corridor of 400 kV passing through the Taraclia District	Contractor	CSE/MEPIU/ME LPA II Taraclia IPM Taraclia CSP Taraclia AST, ANA	Contractor's Budget	Contractor's work plan

Table 7-2: Mitigation measures presented in the ESMP for Operational and Decommissioning stages

Type of Impact & Potential Negative Impact	Environmental & Social mitigation measures	Location	Executing agency	Supervising agency	Budget	Timing
Operational Phase						
Operation and maintenance of the OHTL	1. The ESMS establishes, implements and maintains by the Beneficiary. 2. Operational Criterion shall be identified by the Beneficiary to be in compliance with applicable RM legal requirements and IFIs 3. Reporting ES performances to the Environmental Agency other stakeholders	The new 400 kV OHTL	Moldelectrica	MoEn. AST ANSP AM APL	Beneficiary's Budget	O&M Plan
Vegetation management						
Birds protection						
Wastes and hazardous wastes management						
Transportation and circulation						
Purchase of materials/goods and services						
OHS						
Decommissioning Phase						
Wastes and hazardous wastes management	Decommissioning Criterion shall be in compliance with applicable RM legal (Development of technical report for decommissioning process)	The new 400 kV OHTL	Moldelectrica	MoEn. AST ANSP AM APL	Beneficiary's Budget	O&M Plan

CHAPTER 8: CAPACITY BUILDING

8.1 General

The World Bank Group Strategy[101] sets out the corporate goals of ending extreme poverty and promoting shared prosperity in all its partner countries. Securing the long-term future of the planet, its people and its resources, ensuring social inclusion, and limiting the economic burdens on future generations will underpin these efforts. The two goals emphasize the importance of economic growth, inclusion and sustainability - including strong concerns for equity.

According to definition, the Capacity-building is defined as the process of developing and strengthening the skills, instincts, abilities, processes and resources that organizations and communities need to survive, adapt, and thrive in a fast-changing world.

An essential ingredient in capacity-building is transformation that is generated and sustained over time from within; transformation of this kind goes beyond performing tasks to changing mindsets and attitudes. The sustainable development includes targets for capacity-building, including increasing technology and innovation in least developed countries and improving data collection and monitoring for the achievement of the SDGs themselves. Universities in particular can serve as centers of capacity-building through research, innovation and data collection and analysis.

8.2 Capacity building for construction phase

The implementation of the Site Specific ESIA/ESMP requires specific knowledge and competence for Contractor and subcontractor that shall be engaged in the construction phases for the 400 kV OHTL.

The contractor shall ensure that each worker receives adequate safety and health training, in particular in the form of information and instructions specific to his workstation or job:
(i) on recruitment,
(ii) in the event of a transfer or a change of job,
(iii) in the event of the introduction of new work equipment or a change in equipment, and
(iv) in the event of the introduction of any new technology.
The training shall be adapted to take account of new or changed risks, and repeated periodically if necessary.

Respectively, the construction of the 400 kV OHTL shall support relevant trainings on knowledge and information on topics such as the Site Specific ESIA/ESMP implementation, ES performances reporting, etc. The capacity building and training plan for construction stage is presented in Table 8-1 below.

101 https://openknowledge.worldbank.org/bitstream/handle/10986/16093/32813_ebook.pdf?sequence=#:~:text=The%20World%20Bank%20Group%20(WBG,goals%20in%20a%20sustainable%20manner.

Table 8-1: Capacity building and training program for Construction Phase

#	Training subject	Time and duration	Recipients	Organizer	Cost
A	**ENVIROMENTAL AND SOCIAL**				
1	Induction training for the provision of the Site Specific ESIA/ESMP	Before starting the construction works	Contractor/ Subcontractor	Contractor	Contractor cost
2	Induction for visitors, supply chain, community, etc.	Before starting the construction works	Contractor/ Subcontractor	Contractor	Contractor cost
3	Induction regarding requirements of the Find Chance Procedure	Before starting excavation works	Contractor/ Subcontractor	Contractor	Contractor cost
4	Waste management requirements	Before starting construction works and periodically	Contractor/ Subcontractor	Contractor	Contractor cost
5	Social & Gender requirement at the working place	Before starting construction works and periodically	Contractor/ Subcontractor	Contractor	Contractor cost
6	HR policy requirements (Child labor, non-discrimination and equal opportunity, etc.)	Before starting construction works and periodically	Contractor/ Subcontractor	Contractor	Contractor cost
7	The provision of the Social Management Plan	Before starting construction works and periodically	Contractor/ Subcontractor	Contractor	Contractor cost
8	TiP, SH, HIV/AIDS and STD requirements	Before starting construction works and periodically	Contractor/ Subcontractor	Contractor	Contractor cost[102]
9	Traffic Management Plan	Before starting construction works and periodically	Contractor/ Subcontractor	Contractor	Contractor cost
10	Community HS Plan	Before starting construction works and periodically	Contractor/ Subcontractor	Contractor	Contractor cost
11	Installation of devices for birds	After towers installation	Contractor/ Subcontractor	Contractor	Contractor cost
12	Nests installation on towers	After towers installation	Contractor/ Subcontractor	Contractor	Contractor cost
B	**OCCUPATIONAL HEALTH AND SAFETY**				
11	General Health and Safety Plan requirements	Before starting construction works and periodically	Contractor/ Subcontractor	Contractor	Contractor cost
12	Excavation works/Confined space	Before starting construction works and periodically	Contractor/ Subcontractor	Contractor	Contractor cost
13	Working at heights on site	Before starting construction works and periodically	Contractor/ Subcontractor	Contractor	Contractor cost
14	Electrical requirements on site	Before starting construction works and periodically	Contractor/ Subcontractor	Contractor	Contractor cost

[102] The Contractor shall select an external service provider based on contract.

#	Training subject	Time and duration	Recipients	Organizer	Cost
15	Wear of PPE on site	Before starting construction works and periodically	Contractor/ Subcontractor	Contractor	Contractor cost
16	Noise and vibration on site	Before starting construction works and periodically	Contractor/ Subcontractor	Contractor	Contractor cost
17	Crane and forklift requirement on site	Before starting construction works and periodically	Contractor/ Subcontractor	Contractor	Contractor cost
18	Requirements for smoking and drinking on site	Before starting construction works and periodically	Contractor/ Subcontractor	Contractor	Contractor cost
19	Electrical requirements on site	Before starting construction works and periodically	Contractor/ Subcontractor	Contractor	Contractor cost

The contractor shall ensure that subcontractor workers engaged in work have in fact received appropriate instructions regarding OHS risks during their activities in his undertaking and /or establishment. Workers' representatives with a specific role in protecting the safety and health of workers shall be entitled to appropriate training. The training must take place during working hours or in accordance with national practice either within or outside the undertaking and/or the establishment.

8.3 Capacity building for operational phase

In order to achieve the World Bank Goals, emphasizing the economic growth, inclusion and sustainability, the Beneficiary shall implement the present Capacity Building Plan, presented in the Table 8-2.

The implementation of the Site Specific ESIA/ESMP specific for operational phase requires specific knowledge and competence for the Beneficiary personnel to operate and maintain the new 400 kV OHTL.

The Beneficiary Moldelectrica shall ensure that workforce receives adequate OHS training, in conformity with applicable Republic of Moldova and the World Bank specific for the new 400 kV OHTL (i) on recruitment, (ii) in the event of a transfer or a change of job, (iii) in the event of the introduction of new work equipment or a change in equipment, and (iv) in the event of the introduction of any new technology.

The training shall be adapted to take account of new or changed risks, and repeated periodically if necessary. The plan for capacity building and training plan for operational stage is presented in Table 8-2 below.

Table 8-2: Capacity building and training program for Operational Phase

#	Training subject	Time and duration	Recipients	Organizer	Cost, Euros
1	Requirements of the international standards (ISO 9001, ISO 14001, ISO 45001)	2024 3 days	Moldelectrica	MEPIU/ Moldelectrica	TBI
2	World Bank ES Standards (include biodiversity protection, etc.)	2024 2 days	Moldelectrica	MEPIU/ Moldelectrica	TBI
3	Risk Assessment Procedure (the new Law for ESIA procedure (in force from October 2023)	2024 2 days	Moldelectrica	MEPIU/ Moldelectrica	TBI
4	Social and Gender aspects including SH, SEA, TiP, STD, HIV/AIDS, etc.	2024 2 days	Moldelectrica	MEPIU/ Moldelectrica	TBI
Total[103]					**TBI**

[103] Here shall be included the price for event location at the hotel, meal, materials, etc.

CHAPTER 9: PERFORMANCE EVALUATION

9.1 Monitoring, measurement, analysis and performance evaluation

9.1.1 General

Environmental and social monitoring and measurement is necessary to track the performance of the mitigation measures for the new 400 kV OHTL. It aims to ensure that the project is functioning within the limits of the environmental and social assessment and is compliant with legislative and regulatory requirements.

The monitoring and measurement program outlined below covers the environmental, social and occupational health and safety conditions of the new 400 kV OHTL. It will provide sufficient information to identify conditions which require corrective action or for which additional impact analysis and mitigation measures may be required. The monitoring program is based on the environmental and social impacts that were predicted and the mitigation measures that were identified.

The costs estimates include cost estimates for the purchase of monitoring equipment or services and other monitoring operational costs.

An ESMP is a living document that is periodically revised to reflect the current understanding of site conditions, with the continued growth of the knowledge base throughout the life of the project. Monitoring programs must also be revised and updated to generate the most relevant data and information to characterize evolving environmental and social as well as environmental and social program performance.

Implementation of these programs will provide the data and information needed to identify, anticipate, and further mitigate the changing environmental and social conditions in the 400 kV OHTL over time. The monitoring program plays an important role in achieving sustainability and transparency.

Each of the monitoring programs shall be the responsibility of key management personnel defined in the Monitoring Plan table. They will have the authority to adjust and modify operating conditions should the monitoring outcomes identify that such corrective actions are warranted.

9.1.2 Monitoring and measurement during Construction Phase

The following activities will be continuously monitored during construction phase:

- Implementation of approved Detailed Design for the 400 kV OHTL;
- Implementation of the ESIA/ESMP for the 400 kV OHTL specific for Taraclia District;
- Implementation of the Stakeholders Engagement Plan (SEP) specific for the Taraclia District;
- Implementation of the Code of Conduct;
- Implementation of the Health and Safety Plan;

- Implementation of the Community Health and Safety Plan and Traffic Management Plan;
- Implementation of the Resettlement Action Plan.

9.1.3 Monitoring and measurement during Operation Phase

The operation of the new 400 kV OHTL must be regularly monitored during the operational phase to be in line with the requirements and procedure stipulated in the applicable Laws of the Republic of Moldova.

As it was already mentioned the measures are standard ones and will cover: O&M, energy efficiency, biodiversity, waste management, OHS, etc.
In this context, during the operational phase the key institutions to which the ME will enter into juridical relation with are:

- Ministry of Energy;
- Environmental Agency/Environmental Protection Inspectorate (regular inspections of compliance with the environmental standards);
- National Agency for Public Health (regular medical control for workers);
- Labor Inspection (compliance with the OHS standards);
- State Department for Emergency Situations (fire protection measures and training);
- National Archaeological Agency and the Ministry of Culture, etc.

Table 9-1: Monitoring and Measurement Plan for Construction Stage

WHAT parameter is to be monitored	WHERE is the para-meter to be monitored	HOW is the parameter to be monitored	WHEN is the parameter to be monitored	WHO is to monitor the parameter	Cost	WHOM to report to (decision making institutions)
HEALTH, SAFETY AND ENVIRONMENT (DOCUMENTS AND RECORDS)						
Construction Authorization	Construction Site (CS)	To be present on CS	Before starting construction works (CW)	MEPIU, CSE, LPA, SLI	ME	MEPIU (MPR) to MoEn
Approved corridor for 400 kV	Receive endorsement approval from stakeholders	To be submit to stakeholders for approval	Before DD is approved by state authorities of RM	CSE, MEPIU, ME	Contractor's costs	MEPIU (MPR) to MoEn
Approved Detailed Design & Site Specific ESIA/ESMP	Construction Site (CS)	To be present on CS	Before starting construction works	MEPIU/ME CSE, LPA SLI	Contractor's costs	MEPIU (MPR) to MoEn
Risk Register	Construction Site (CS)	To be present on CS	Before starting construction works	MEPIU/ME CSE	Contractor's costs	MEPIU (MPR) to MoEn
CESMP	Construction Site (CS)	To be present on CS	Before starting construction works	MEPIU/ME CSE	Contractor's costs	MEPIU (MPR) to MoEn
COHSP	Construction Site (CS)	To be present on CS	Before starting construction works	MEPIU/ME CSE, LPA	Contractor's costs	MEPIU (MPR) to MoEn
CoC	Construction Site (CS)	To be present on CS	Before starting construction works	MEPIU/ME CSE, LPA	Contractor's costs	MEPIU (MPR) to MoEn
Communication procedure (GRM for workforce)	Construction Site (CS)	To be present on CS	Before starting construction works	MEPIU/ME CSE	Contractor's costs	MEPIU (MPR) to MoEn
Social & Gender Plan	Construction Site (CS)	To be present on CS	Before starting construction works	MEPIU/ME CSE	Contractor's costs	MEPIU (MPR) to MoEn
TiP, HIV/AIDS, STD, SH Plan	Construction Site (CS)	To be present on CS	Before starting construction works	MEPIU/ME CSE	Contractor's costs	MEPIU (MPR) to MoEn
HSSE Training Plan (for direct and indirect workers)	Construction Site	Signing the minutes of training on CS	Before Work on site	MEPIU/ME CSE	Contractor's costs	MEPIU (MPR) to MoEn
Emergency Preparedness and Response Plan	Construction Site (CS)	To be present on CS	Before starting construction works	MEPIU/ME CSE	Contractor's costs	MEPIU (MPR) to MoEn
Community HSP	Construction Site (CS)	To be present on CS	Before starting construction works	MEPIU/ME CSE, LPA	Contractor's costs	MEPIU (MPR) to MoEn
Traffic Management Plan	Construction Site (CS)	To be present on CS	Before starting construction works	MEPIU/ME CSE, LPA	Contractor's costs	MEPIU (MPR) to MoEn
Information Board on Site	Construction Site (CS)	To be present on CS	Before starting construction works	MEPIU/ME CSE, LPA	Contractor' s costs	MEPIU (MPR) to MoEn
Daily Log	Construction Site (CS)	To be present on CS	Before starting construction works	MEPIU/ME CSE	Contractor's costs	MEPIU (MPR) to MoEn

WHAT parameter is to be monitored	WHERE is the para-meter to be monitored	HOW is the parameter to be monitored	WHEN is the parameter to be monitored	WHO is to monitor the parameter	Cost	WHOM to report to (decision making institutions)
List of workers on site	Construction Site (CS)	To be present on CS	Before starting construction works	MEPIU/ME CSE	Contractor's costs	MEPIU (MPR) to MoEn
Visitors Log	Construction Site (CS)	To be present on CS	Before starting construction works	MEPIU/ME CSE	Contractor's costs	MEPIU (MPR) to MoEn
Accident Log and reporting procedure	Construction Site (CS)	To be present on CS	Before starting construction works	MEPIU/ME CSE, SLI	Contractor's costs	MEPIU (MPR) to MoEn
Emergency and First Aids kits on site	Construction Site (CS)	To be present on CS	Before starting construction works	MEPIU/ME CSE	Contractor' s costs	MEPIU (MPR) to MoEn
Environmental collection kits (spills & leaks)	Construction Site (CS)	To be present on CS	Before starting construction works	MEPIU/ME CSE, EPI	Contractor' s costs	MEPIU (MPR) to MoEn
General working condition on site (camp site, sanitation accommodation, resting rooms, washrooms and toilets, canteen, etc.)	Construction Site (CS)	To be present on CS	Before starting construction works	MEPIU/ME CSE, SLI	Contractor' s costs	MEPIU (MPR) to MoEn
ENVIRONMENTAL PERFORMANCES						
Excavation	Construction Site	Field inspection	Before starting excavation works	MEPIU, ME, CSE, NAA	Contractor costs	MEPIU (MPR) to MoEn
Protection of black fertile soil	Construction Site	Field inspection	When deemed necessary	MEPIU, ME, CSE, LPA, EPI	Contractor costs	MEPIU (MPR) to MoEn
Tracks Oil spills on soil	Construction Site	Field inspection	When deemed necessary	MEPIU, ME, CSE, EPI	Contractor costs	MEPIU (MPR) to MoEn
PE Cover of excavated soil piles	Construction Site	Field inspection	When deemed necessary	MEPIU, ME, CSE, EPI	Contractor costs	MEPIU (MPR) to MoEn
Noise (measure the noise level)	Construction Site	Measurement of dB level on CS	During the work of heavy machinery	MEPIU, ME, CSE, NAPH	Contractor costs	MEPIU (MPR) to MoEn
Ozon	Construction Site	Measurement of Ozon concentration	After OHTL in operation	MEPIU, ME, CSE, NAPH	Contractor costs	MEPIU (MPR) to MoEn
EMF	Construction Site	Measurement of EMF	After OHTL in operation	MEPIU, ME, CSE, NAPH	Contractor costs	MEPIU (MPR) to MoEn
Dust (presence of sprays and tracks hauls cover liner)	Construction Site	Measurement of quantity of water used for dust suppressed on CS	During the work of heavy machinery	MEPIU, ME, CSE, NAPH, EPI	Contractor costs	MEPIU (MPR) to MoEn
Waste Management	Construction Site	Check of permits for dumping the waste at the local authorized damp site& wastes records traceability	Before work starts and during the work when deemed necessary.	MEPIU, ME CSE, EPI	Contractor's costs	MEPIU (MPR) to MoEn

WHAT parameter is to be monitored	WHERE is the para-meter to be monitored	HOW is the parameter to be monitored	WHEN is the parameter to be monitored	WHO is to monitor the parameter	Cost	WHOM to report to (decision making institutions)
Hazardous waste (PCBs) management (if any)	Construction Site	Presence of PPE (respirators, gloves, glasses, coverall, special containers, etc.))	Periodically (ones in a month)	MEPIU/ME CSE, EPI, SLI	Contractor's costs	MEPIU (MPR) to MoEn
Consumption of resources	Construction Site	Measure the consumption	Monthly	MEPIU/ME CSE, EPI, SLI	Contractor's costs	MEPIU (MPR) to MoEn
SOCIAL PARAMETERS						
Workforce Committee (GRM)	Construction Site	Boxes to be installed on construction site	Ensure that box is installed and safety condition	MEPIU, ME, CSE	Contractor's costs	MEPIU (MPR) to MoEn
Number of meetings, seminar, booklets, etc. on social mitigating risks (CoC, TiP, SH, HIV & STD) conducted with workers	Construction Site	Training reports	Monthly	MEPIU CSE	Contractor's costs	MEPIU (MPR) to MoEn
Numbers of grievances received from construction site personnel	Construction Site	Complaints	Monthly	MEPIU, CSE	Contractor's costs	MEPIU (MPR) to MoEn
Medical control of personnel	Construction Site	Surveillance medical report, Invoice	Once a year	MEPIU, ME CSE, NAPH EA/EPI	Contractor's costs	MEPIU (MPR) to MoEn
OCCUPATIONAL HEALTH AND SAFETY						
PPE	Construction Site	Workers must wear PPE	Every day	MEPIU, ME CSE	Contractor's costs	MEPIU (MPR) to MoEn
Electrical special PPE	Construction Site	Workers must wear PPE	Every day	MEPIU, ME CSE	Contractor's costs	MEPIU (MPR) to MoEn
Crane and forklift	Construction Site	O&M for crane and forklift	Before starting construction work	MEPIU, ME CSE	Contractor's costs	MEPIU (MPR) to MoEn
Weather condition	Construction Site	Special PPE for cold period and water for hot season	Depends of weather conditions	MEPIU, ME CSE	Contractor's costs	MEPIU (MPR) to MoEn
Work Permits	Construction Site	Obtain WP from ME	Before starting construction work	MEPIU, ME CSE	Contractor's costs	MEPIU (MPR) to MoEn
OHS Signs	Construction Site	Install OHS signs on site	Before starting construction work	MEPIU, ME CSE	Contractor's costs	MEPIU (MPR) to MoEn
Smoking	Construction Site	Install a smoking place	Before starting construction work	MEPIU, ME CSE	Contractor's costs	MEPIU (MPR) to MoEn
Cleanness	Construction Site	Site Inspection	Before starting construction work and regularly	MEPIU, ME CSE	Contractor's costs	MEPIU (MPR) to MoEn

Table 9-2: Monitoring and Measurement Plan for Operational Stage

WHAT parameter is to be monitored	WHERE is the para-meter to be monitored	HOW is the parameter to be monitored	WHEN is the parameter to be monitored	WHO is to monitor the parameter	Cost	WHOM to report to (decision making institutions)
ENVIRONMENTAL						
Establishment an ESMS	ME	Compliance with ES applicable national laws and international requirements (if any)	Monthly / Yearly	Company's designated and technical staff	Company's costs	International Companies
Energy consumption/ transportation	ME	Compliance with ES applicable laws	Monthly / Yearly	Company's technical staff	Company's costs	NAER Energy Supplier
Dead birds under OHTL	ME	Compliance with ES applicable laws	Monthly / Yearly	Company's technical staff	Company's costs	Env. Agency, EPI
Generated solid wastes	ME	Compliance with ES applicable laws	Monthly / Yearly	Company's technical staff	Company's costs	EA, EPI
Ozon generation	ME	Compliance with ES applicable laws	Monthly / Yearly	Company's technical staff	Company's costs	EA, EPI
EMF	ME	Compliance with ES applicable laws	Monthly / Yearly	Company's technical staff	Company's costs	EA, EPI
Generated liquid wastes	ME	Compliance with ES applicable laws	Monthly / Yearly	Company's technical staff	Company's costs	EA, EPI
Spare parts	ME	Compliance with ES applicable laws	Monthly / Yearly	Company's technical staff	Company's costs	MoEn
Monitoring & measurement (M&M) equipment	ME	Compliance with ES applicable laws	Monthly / Yearly	Company's technical staff	Company's costs	Moldova Standard
M&M of working environ. parameters	ME	Compliance with ES applicable laws	Monthly / Yearly	Company's technical staff	Company's costs	EA/EPI, NAPH
M&M of pollutant release into the atmosphere	ME	Compliance with ES applicable laws	Monthly / Yearly	Company's technical staff	Company's costs	EA, EPI
Equipment maintenance	ME	Compliance with ES applicable laws	Monthly / Yearly	Company's technical staff	Company's costs	MoEn
Emergency situations	ME	Compliance with ES applicable laws	Monthly / Yearly	Company's technical staff	Company's costs	Firefighting department
Equipment safety	ME	Compliance with ES applicable laws	Monthly / Yearly	Company's technical staff	Company's costs	Technical Surveillance Agency
SOCIAL						
Compliance with ES requirements	ME	Compliance with ES applicable laws	Yearly	Company's technical staff	Company's costs	EA/EPI NAPH, SLI
Human Resources Policy	ME	Compliance with HR applicable laws	Monthly/ Yearly	Company's HR staff	Company's costs	EA/EPI NAPH, SLI
CoC	ME	Compliance with ES applicable laws	Monthly / Yearly	Company's HR staff	Company's costs	EA/EPI NAPH, SLI
Health & Safety Plan	ME	Compliance with HS applicable laws	Monthly / Yearly	Company's HS staff	Company's costs	EA/EPI NAPH, SLI
Medical surveillance control of personnel	ME	Compliance with social applicable laws	Monthly / Yearly	Company's staff	Company's costs	NAPH, SLI
M&M equipment	ME	Compliance with social applicable laws	Monthly / Yearly	Company's staff	Company's costs	Moldova Standard, NAPH, SLI
Vehicles maintenance	ME	Compliance with road applicable laws	Monthly / Yearly	Company's staff	Company's costs	Specialized Company

9.1.4 Monitoring the compliance with ES requirements

9.1.4.1 Compliance with requirements of WB

The Detailed Design shall be approved by ME and MEPIU and shall receive non-objection from the World Bank.

At the detailed design stage, an Environmental and Social Impact Assessment (ESIA) proportionate to the potential risks and impacts of the 400 kV OHTL and commensurate with its nature, size and location shall be carried out according to World Bank's OP 4.01 Environmental Assessment and identified high risks shall be part of ESMP.

Additionally, at the detailed design stage the Stakeholder Engagement Plan (SEP) shall be revised and map engagement during project implementation and external reporting.

9.1.5 Compliance with applicable RM requirements

9.1.5.1 Construction Permit issuance

The construction permit/authorization is issued by the LPA based on the Beneficiary application, which indicates the location of the construction site, within 30 working days from the date of its registration.

The following documents will be attached to the request:
- The Urbanism Certificate for Design issued by the Local Public Authority;
- Approved Detailed Design with the report on the project verification;
- Contract on the author's supervision, signed by the applicant and the Contractor;
- The ESIA/ESMP specific for the Taraclia District;
- The Resettlement Action Plan with information specific for Taraclia District;
- Notice from the National Council of Historical Monuments attached to the Ministry of Culture on the approval of the execution design, in case of designing interventions at history, art or architecture monuments or in-built areas registered in the Monuments Register of the Republic of Moldova, protected by the state;
- The archaeological discharge certificate issued by the National Archaeological Agency;
- The Environmental Agreement issued by the Environmental Agency.

9.2 Internal audit

The Construction Supervision Engineer shall conduct internal audits at planned intervals to provide information to MEPIU on whether the Site Specific ESIA/ESMP: (i) CESMP is developed by Contractor by taking into consideration all requirements from Site Specific ESIA/ESMP and (ii) is effectively implemented and maintained by Contractor and Subcontractors.

9.3 Management Review

For the Construction phase, the Construction Supervision Company shall be responsible for environmental and social performances reporting to MEPIU on the implementation of the requirements established in the present Site Specific ESIA/ESMP.

CHAPTER 10: EVALUATION OF COMPLIANCE WITH REQUIREMENTS OF ESMP

10.1 General

Non-conformity represents non-fulfillment of requirements of the present document or occurrence arising out of, or in the course of, work that could or does result in injury and ill health. Non-conformity represents also incidents and accidents.

The provisions of the site specific ESIA/ESMP shall be implemented **during construction phase** by the Contractor and the Construction Supervision Engineer shall monitor the implementation process of the present document in an open and transparent manner and monitoring and measurement performances shall be reported monthly to MEPIU.

The provisions of the site specific ESIA/ESMP shall be implemented **during operational phase** by the Operator/Beneficiary and State Supervision Agency (Environmental, Health and Safety, Social, etc.) shall monitor the implementation process of the present issued legal permits (Authorizations, Permits, Notices, etc.) in an open and transparent manner and monitoring and measurement performances shall be reported monthly to MEPIU.

Non-compliance with provisions established in the site specific ESMP or non-conformity (ies) shall be recorded by the Construction Supervision Engineer in the Non-conformity Report. Non-conformity Report shall establish necessary correction actions and take actions to control and correct non-conformity (ies).

10.2 Incidents

10.2.1 Incidents occurring during construction phase

Incident means occurrence arising out of, or in the course of, work that could or does result in injury and ill health. An incident where injury and ill health occurs is sometimes referred to as an "accident". An incident where no injury and ill health occurs, but has the potential to do so, may be referred to as a “near-miss”, “near hit” or “close call”.
Although there can be one or more nonconformities related to an incident, an incident can also occur where there is no nonconformity.

Any Incident occurring on the Construction site of the Project or caused by the Construction activities shall be reported by the Contractor/ subcontractor to the CSE and MEPIU as soon as possible and not later than 24 hours after the incident occurred.

The Incident Report form is presented in the Annex 1.

10.2.1 Incidents occurring during operational phase

The operator or beneficiary shall comply with applicable laws of Republic Moldova and legal permit issue by the State Supervision Agency based on its ESMS.

10.3 Nonconformity and corrective action

10.3.1 Identified non-conformity during construction phase

Nonconformity means non-fulfilment of a requirement established in the present Site Specific ESIA/ESMP. Nonconformity relates to requirements established in this document for construction stage shall be kept under control and corrective actions shall be implemented on site.

The nonconformity and corrective action process are a reactive process, in that it is triggered after a noncompliance with requirements established in the present document. In essence, the process uses the principles of root cause analysis. A basic approach to problem solving is “cause” and “effect”, and it is the cause that needs to be eliminated. Action taken shall be appropriate and proportionate to the impact of the nonconformity. As part of the corrective action process, the effectiveness of action taken must be checked to ensure it is effective.

Corrective action means to eliminate the cause(s) of a nonconformity or an incident and to prevent recurrence. The main aim of the corrective action process, described in the present document, is to eliminate the noncompliance causes of actual problems so as to avoid recurrence of those problems.

The Nonconformity and Corrective Actions Report form is presented in the Annex 2.

10.3.2 Identified non-conformity during operational phase

Nonconformity relates to requirements established in this document for managing environmental and social aspect during operational stage are responsibility of the beneficiary. The Company shall establish, implement and maintained an ESMS based on national and international requirements.

Corrective action means to eliminate the cause(s) of a nonconformity or an incident and to prevent recurrence, and reporting the State Supervision Agency shall be kept under control by the beneficiary based on requirements of its own ESMS. The main aim of the corrective action process is to eliminate the noncompliance causes of actual problems so as to avoid recurrence of those problems.

The nonconformity and corrective action process are a reactive process, in that it is triggered after a noncompliance with requirements established in the present document. In essence, the process uses the principles of root cause analysis. A basic approach to problem solving is “cause” and “effect”, and it is the cause that needs to be eliminated. Action taken shall be appropriate and

proportionate to the impact of the nonconformity. As part of the corrective action process, the effectiveness of action taken must be checked to ensure it is effective.

CHAPTER 11. INSTITUTIONAL ARRANGEMENTS

11.1 Institutional responsibilities

The overall responsibility for monitoring the Project implementation is the Ministry of Energy (MoEn), and shall ensure that role and responsibilities are defined and with sufficient resources for project implementation accepted for the Bank and Government.

11.2 Project Management Unit

The Ministry of Energy (MoEn)[104] is the central specialized body, which promotes state policy in the field of infrastructure and regional development and operates in accordance with the Constitution and Laws of the Republic of Moldova, Parliamentary Decisions, Acts of the President of the Republic of Moldova, Government Decisions and Orders, as well as other normative acts.

The Ministry of Energy aims to create an efficient, sustainable, and competitive energy sector, which will ensure the security of the country's energy supply. To achieve this, MoEn focuses on the following objectives: (i) Development of the power sector, (ii) Development of the thermal energy sector, (iii) Development of the natural gas and petroleum products sector and (iv) Promoting energy efficiency and capitalizing on renewable energy sources. The Republic of Moldova must improve and streamline its thermal energy system, develop alternative energy systems, and diversify its natural gas and electricity supply sources.

11.3 Project Implementation Unit

Moldova Energy Projects Implementation Unit (MEPIU)[105], is an independent, non-profit legal entity established by the Government Decision no. 1276 in December 2000. The task of MEPIU is to ensure the efficient implementation of the projects in the energy sector through their administration, monitoring and coordination in accordance with the Donors'/international financial institutions' requirements.

During its activity MEPIU has implemented various projects, strategically important for the Republic of Moldova, such as Energy Project, Energy II Project (Heating and Electrical Components), "Interconnection gas pipeline between the Natural Gas Transmission System of Romania and the Natural Gas Transmission System of the Republic of Moldova on the Iaşi (Romania) – Ungheni (Moldova) direction", „Feasibility Study on Synchronous Interconnection of Ukrainian and Moldovan Power Systems to ENTSO-E Continental Europe Power System", "Capacity building to the Ministry of Economy in the area of energy efficiency and renewable energy in Moldova", Moldova Energy Sector Reform and Efficiency Improvements Project, and has performed many other activities in the energy sector, covering financial, investment and technical aspects.

[104] Source: https://midr.gov.md/ro/portofoliu/energie
[105] Source: https://mepiu.md/eng/about-us

Currently, MEPIU implements projects related to modernization of the centralized district heating system, diversification of natural gas supply sources, and interconnection of power grids of the Republic of Moldova and Romania.

MEPIU operates in accordance with the legislation in force of the Republic of Moldova, its Statute (Regulations), procedures and standards of the World Bank and other international financing organizations.

11.4 The Beneficiary SE Moldelectrica

The Government Decision no. 1000 of 02.10.2000 "Regarding the creation of state enterprises in the electric energy sector" served as the basis for the formation of the State Enterprise "Moldelectrica" by order of the Ministry of Industry and Energy of the Republic of Moldova no. 92 of October 19, 2000.

The state enterprise "Moldelectrica" is a company specialized in the centralization of operational transport and dispatching services of the energy system of the Republic of Moldova. Within its activity, the Transport System Operator is responsible for two main groups of tasks: (i) electricity transport and (ii) the implementation of a single operative-technological management of the energy system of the Republic of Moldova.

11.5 Construction Supervision Engineer

The main objective of the assignment for the Consultant is to assist the Employer/MEPIU in the administration and supervision of the Design, Supply and Installation Contracts on the construction of a new 400 kV Vulcanesti-Chisinau overhead transmission line, Upgrade of 330 kV Chisinau Substation and extension of 400 kV Vulcanesti Substation with due diligence, to carry out the duties assigned to him in the Contract and provide other services.

The Construction Supervision Engineer hired by MEPIU for daily supervision over the implementation of civil works will be responsible for supervising the timely, proper and reliable implementation of works and measures, as provided by the Site Specific ESIA/ESMPs for the 400 kV OHTL Vulcanesti – Chisinau and Substations.

MEPIU shall oversee the environmental and social aspects of all activities implemented for 400 kV OHTL and the Chisinau Substation (the component no. 1 and component no. 2 of the Project) to ensure that mitigation measures are designed and implemented properly to prevent and minimize likely adverse environmental and social impacts.

The Construction Supervision Engineer shall also ensure that all necessary agreements and permits are obtained by appropriate contractors from relevant state and local authorities before the construction works are start. MEPIU may request to check if such permits are issued and valid as well as if the ESMP mitigation and monitoring aspects are implemented on the ground during the construction of the 400 kV OHTL and Substations according to applicable the Republic of Moldova

environmental and social legislation.

11.6 General Contractor

The General Contractor, during construction phase, shall take the responsibility for physical implementation of mitigation measures provided under the Site Specific ESIA/ESMP, as well as for obtaining all construction activities related permits and agreements in accordance contractual documents and applicable environmental and social legislation of the Republic of Moldova.

The Construction Supervision Company will employ an Environmental Health and Safety (HSE) Manager who will ensure that the Constructor carry out day-to-day implementation of the ESMP in line with the environmental and social clauses included in contractual documents. The Contractor will have to appoint (as it will be required by contract provisions) HSE Offices who will actually organize the process of implementation of mitigation measure on Site, during the Construction Phase.

11.7 Monitoring Supervising Agencies

11.7.1 Roles and responsibilities of the State Supervision Agencies for design phase

Monitoring and supervising agencies are in charge of monitoring the extent of implementation and the effectiveness of the mitigation and enhancement measures and of adjusting the program if needed. Monitoring agencies will be responsible for covering all measures requiring some sort of monitoring by MEPIU/ME.

The organizational layer of the ESMP for monitoring and supervision is presented in figure below.

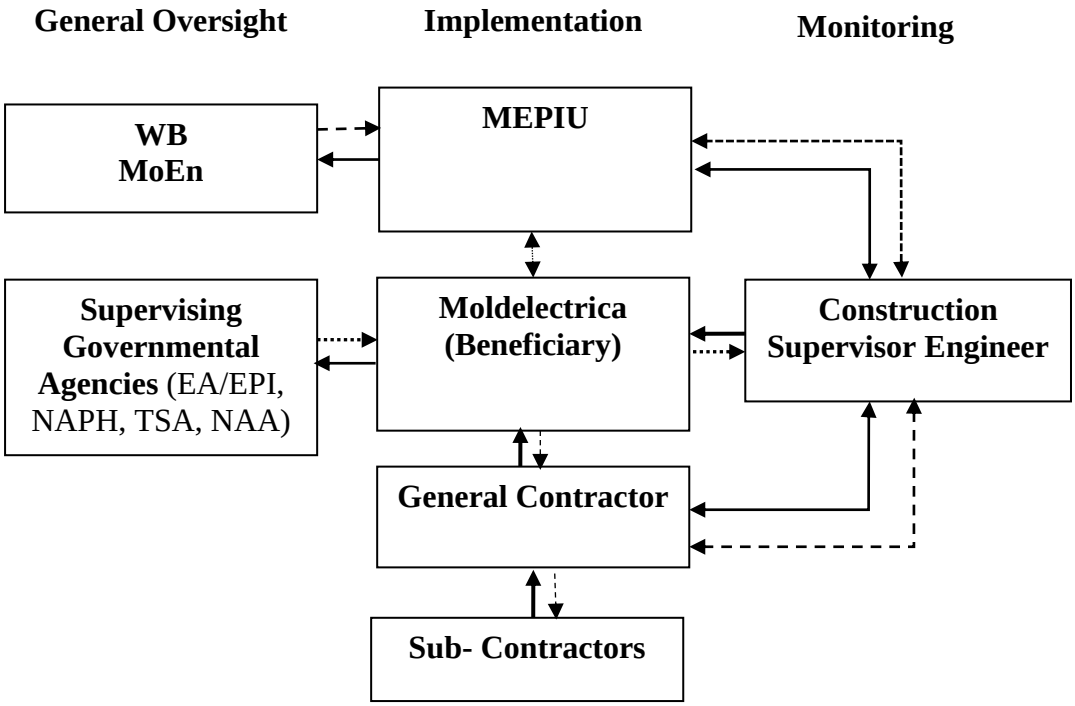


Figure 10-1: Organizational layer of the ESMP
(⋯→ information, → reporting channels)

The state government agencies shall be involved in the monitoring activities, as a part of their mandate, in particular:

1. The Environmental Agency (EA) within the Ministry of Environment, is responsible for assessment of the EIA process and perform state ecological expertise,
2. The Environmental Protection Inspectorate (EPI) and its territorial offices, within the Ministry of Environment, are responsible for the monitoring of the implementation of the provisions established in the Environmental Permit and finally attend at the reception of works completion,
3. The National Agency for Public Health and its territorial offices within the Ministry of Health, are responsible for approval of the Detailed Design & Site Specific ESIA/ESMP,
4. The Technical Surveillance Agency within the MoEn is responsible for issue the Notice for the design process and finally attend at the reception of works completion.

11.7.1 Roles and responsibilities of the State Supervision Agencies for operational phase

Monitoring and supervising agencies are in charge of monitoring and measurement the extent of implementation and the effectiveness of the mitigation and enhancement measures specific for operational phase based on issued notices, permits, endorsements, etc. The beneficiary is

responsible for covering all measures requiring some sort of monitoring stated in the legal document issued by the State Agencies.

CHAPTER 12: STAKEHOLDER ENGAGEMENT AND PUBLIC CONSULTATIONS

12.1 Public Consultations and Disclosure

12.1.1 Public Consultation Meetings

Within the development of the draft site specific environmental and social impact assessment during the detailed design stage for the construction of the 400 kV OHTL, public consultation shall be organized at the Taraclia District Council by inviting the community and local public authority from the villages Albota de Sus, Albota de Jos, Balabanu, Novosiolovca, Aluatu, Salcia, Musaitu and Vinogradovca and the scope of the public consultation is to ensure that identified environmental and social risks specific for the corridor 400 kV OHTL passing through the villages Albota de Sus, Albota de Jos, Balabanu, Novosiolovca, Aluatu, Salcia, Musaitu and Vinogradovca from the Taraclia District are provided to the community of the villages Albota de Sus, Albota de Jos, Balabanu, Novosiolovca, Aluatu, Salcia, Musaitu and Vinogradovca. The effective information of the community from villages Albota de Sus, Albota de Jos, Balabanu, Novosiolovca, Aluatu, Salcia, Musaitu and Vinogradovca regarding the construction of the new 400 kV OHTL environmental and social risks is to develop a strong, constructive and responsive relationship that are important for the Site Specific ESIA/ESMP improvement.

The following stakeholder engagement activities have been performed so far:

Table 12-1: Previous Public Consultation during the pre-construction stage

Periods	Topics	Consultation sessions (No.)	Consulted localities/persons (No.)	Details	Notes
February 25 – March 12, 2021	Prior research in accordance with the GD no. 660/2006	6 (1 online session and 5 sessions with physical participation).	35 representatives of local public authorities from 35 localities along the route of the Vulcanesti-Chisinau OHTL (members of Commission for preliminary assessment for declaring the Project as public utility of national interest).	A commission for preliminary research for the declaration of the project as public utility project of national interest was established through GD no. 2/2021. The commission has voted the necessity to declare the Project as public utility of national interest.	Project description leaflet distributed. On May 12, 2022, the Parliament of the Republic of Moldova adopted Law no. 120 on declaration of public utility of national interest of the construction works for construction of the 400 kV OHTL Vulcanesti - Chisinau & the Vulcanesti Back-to-Back station
May 2022	Declaration of the Project as public utility of national interest, including also the components of the Project, the benefits, the stages of implementation and the GRM at the Project level.	Voted in 2 lectures	The draft law was consulted with: Ministry of Justice Ministry of Finance Ministry of Environment National Anticorruption Centre ANRE IPOT Cadaster Agency	The Parliament of RM adopted the Organic Law no. 120/2022	MoIRD used online platform for consultation process particip.gov.md The Law no. 120/2022 was published in the Official Gazette of Republic of Moldova
June 2022	MEPIU Request District Concilium's to publish Law no. 120/2022 on District Concilium web-page	8 Districts	Ialoveni District Council Hâncești District Council Cimișlia District Council Leova District Council Taraclia District Council ATU Gagauzia The Bacioi Local Council	Not RC informed the community about declaration the Project of national interest	Law was published on Concilium web page

Periods	Topics	Consultation sessions (No.)	Consulted localities/persons (No.)	Details	Notes
May 25 – July 10, 2022	Design development for 400 kV Vulcanesti-Chisinau OHTL, including preliminary soil survey, types of work and affected surface by this survey, procedure for assessing damages & paying compensation for lost crops.	31	31 localities and 200 persons affected by preliminary soil survey, including SIMCs' members (in total, about 300 landowners are affected by the preliminary soil survey).	Information materials were distributed in all localities affected by the Project (announcements on GRM operation and WB's GRS, Poster on GRM operation).	Basic Design (Plans and Profiles were approved by the Construction Supervision Engineer and Moldelectrica.
December 13 - 16, 2022	The Environmental and Social Impact Assessment and Site-Specific ESMP (including general aspects of RAP) for the construction of the 400 kV OHTL Vulcanesti – Chisinau and the Chisinau SS. Information and Consultation of the Law no. 120/2022	8 Districts (Ialoveni, Hincesti, Cimislia, Leova, Cahul, Taraclia, ATU Gagauzia and Commune Bacioi)	138 persons	The informative PCs were organized to inform about the progress of preparing the site-specific ESIA & ESMPs and RAP to the public and also to provide the identified main environmental & social possible impacts and mitigation measures proposed.	Most of the discussions, questions and proposals raised during consultations were linked with the land needs and land acquisition process, mechanism for land valuation & schedule of compensation, restrictions to agricultural land during construction/ operation, HS issues regarding OHTL electromagnetic influences, project related job opportunities.
November 23-29, 2023	The ESIA & ESMPs specific for sites for the construction of the 400 kV OHTL Vulcanesti – Chisinau and upgrading the Chisinau SS.	8 Districts (Ialoveni, Hincesti, Cimislia, Leova, Cahul, Taraclia, ATU Gagauzia and Commune Bacioi)	101 persons	The informative PCs were organized based the draft final ESIA & ESMPs Reports specific for sites by providing main ES mitigation measures for risks controlling.	Most of the discussions, questions and proposals raised during consultations were linked with payment for land acquisition process, electromagnetic influences on community health, job opportunity.

The public consultation events shall be carried out by MEPIU together with consultants before starting the construction works and with support of LPAs based on identified specific environmental and social risks for the new 400 kV OHTL. The public consultation process specific for the villages Albota de Sus, Albota de Jos, Balabanu, Novosiolovca, Aluatu, Salcia, Musaitu and Vinogradovca is an important instrument for an open and transparent engagement between community from the villages Albota de Sus, Albota de Jos, Balabanu, Novosiolovca, Aluatu, Salcia, Musaitu and Vinogradovca and MEPIU.

The public consultation process at the detailed design stage ensures that relevant, understandable and accessible information from the Site Specific ESIA/ESMP are provided to the community from the villages Albota de Sus, Albota de Jos, Balabanu, Novosiolovca, Aluatu, Salcia, Musaitu and Vinogradovca. The communication procedure shall generate mutual trust, respect and transparency between MEPIU and community from the villages Albota de Sus, Albota de Jos, Balabanu, Novosiolovca, Aluatu, Salcia, Musaitu and Vinogradovca aiming to receive feed-back in order to improve the Site Specific ESIA/ESMP and finally the community to be satisfied by the construction of the 400 kV OHTL.

In order to comply with WB's requirements for an open and transparent consultation process, MEPIU with the support of the villages Albota de Sus, Albota de Jos, Balabanu, Novosiolovca, Aluatu, Salcia, Musaitu and Vinogradovca created a Social Impact Monitoring Committee. The scope of SIMC is to monitor the environmental and social impact of the construction activity on community.

The detailed Public consultation Plan has been developed by MEPIU and is attached to this document.

12.1.2 Consultations Feedback/Grievance Redress Mechanism

The draft Site Specific ESIA/ESMP shall be presented to WB to receive non-objection and after that the document shall be submitted to the Taraclia District Council to be consulted by community from the villages Albota de Sus, Albota de Jos, Balabanu, Novosiolovca, Aluatu, Salcia, Musaitu and Vinogradovca, SIMC members and all interested parties.

The information disclosure package consists of the following documents (i) The Site Specific ESIA/ESMP, (ii) the provision of the Environmental Permit issued by the Environmental Agency, (iii) the provision of the Law no. 120/2022 for the declaration of the project work of public utility and national interest, (iv) the approved Plan and profiles specific for this affected corridor in the Taraclia District, (v) leaflet and (vi) mechanism for grievances, (vii) RAP. The documents shall be published on the MEPIU, Moldelectrica and the Taraclia District web sites.

The document Site Specific ESIA/ESMP shall be publicly disclosed and consulted for a minimum of 30 days and comments, proposals, objections shall be sent to the MEPIU via e-mail provided in the leaflet and valuable comments shall be incorporated in the document. Direct comments will be possible to be provided during public consultations, before meeting or after. Also, during Project implementation GRM will work and feedback can be received via different channels of

communications: phone, email, webpages, SIMCs and the villages Albota de Sus, Albota de Jos, Balabanu, Novosiolovca, Aluatu, Salcia, Musaitu and Vinogradovca and Taraclia District Council, etc.

The feed-back for proposals of the improvement of the Site Specific ESIA/ESMP shall be submitted to the following e-mail: (i) MEPIU at mepiu@mepiu.md, (ii) at the Moldelectrica e-mail: anticamera@moldelectrica.md and (iii) the Taraclia District Council, the entity responsible for issuance of the Urbanism Certificate for Design (UCD). Moldelectrica representatives are responsible for technical aspects, the Taraclia District Council is responsible for requirements established in the UCD and MEPIU has overall responsibility for revising the present document by including proposals for improvement, grievances, complaints and other information and finally submit revised document to the Taraclia District Council for receiving Construction Authorization.

The form for providing feed-back from interested parties in presented in the Annex 3.

Table 12-2: Communication channel for submitting feed-back or grievances from community

MEPIU	**S.E. Moldelectrica**	**The Taraclia[106] District Council**
Chisinau, 1, Alecu Russo str., office 163 Tel.: (+373) 22 496790, (+373) 22-49-67-90 Email: mepiu@mepiu.md	Chisinau, 78, V. Alecsandri str. Tel.: (+373) 22 22-22-70 Fax: (+373) 22 25-31-42 Email: anticamera@moldelectrica.md	MD-7402 Taraclia, 59 Stefan cel Mare str. Phone: 0(294) 24-6-50 E-mail: anticamera-rs@mail.ru
Verbal complaints addressed to Project staff could be recorded in writing by the receiver and submit to MEPIU for revising the final Site Specific ESIA/ESMP and PC Report.		

12.1.3 Framework for Future Public Consultations

MEPIU plan to submit the document the Site Specific ESIA/ESMP to the Taraclia District and organize public consultation in November 2023, based on public consultation schedule.

Table 12-3: Public Consultation Schedule[107]

No.	**Districts**	**CP planning**	**Revised ESIA/ESMP & PC Report**	**Receive the Construction Permit**		
				Duration	**Start**	**Finish**
1	Chisinau District	23.11.23	15.12.2023	30 days	Q-1, 2024	Q-1, 2024
2	Ialoveni District	23.11.23	15.12.2023	30 days	Q-1, 2024	Q-1, 2024
3	Cimislia District	24.11.23	15.12.2023	30 days	Q-1, 2024	Q-1, 2024
4	Hincesti District	24.11.23	15.12.2023	30 days	Q-1, 2024	Q-1, 2024
5	Cahul District	28.11.23	15.12.2023	30 days	Q-1, 2024	Q-1, 2024
6	Leova District	28.11.23	15.12.2023	30 days	Q-1, 2024	Q-1, 2024
7	UTA Gagauzia	29.11.23	15.12.2023	30 days	09.10.2023	09.11.2023
8	Taraclia District	29.11.23	15.12.2023	30 days	Q-1, 2024	Q-1, 2024

[106] Source: https://raiontaraclia.md/ro/contacte/
[107] This table shall be revised based on Work Plan revised by the Contractor and approved by the Construction Supervision Engineer.

Public consultation shall be organized by the Taraclia District Council and the scope of this consultation is to provide the draft final Site Specific ESIA/ESMP for the construction of the 400 kV OHTL for consulting SIMC members and Albota de Sus, Albota de Jos, Balabanu, Novosiolovca, Aluatu, Salcia, Musaitu and Vinogradovca local community and finally the Site Specific ESIA/ESMP shall be revised by MEPIU/Consultant by incorporating the new proposed mitigation measures and submitting the entire package of documents to the Chairman of the Taraclia District to issue the Construction Authorization.

12.1.4 Grievance Redress Mechanism for consultation process

MEPIU shall organize public consultation at the Taraclia District Council by inviting the affected community from the villages Albota de Sus, Albota de Jos, Balabanu, Novosiolovca, Aluatu, Salcia, Musaitu and Vinogradovca at the public consultation process and material used at the public consultation process is the final draft Site Specific ESIA/ESMP for the construction of the 400 kV OHTL presented in Romanian language. At the public consultation process, the revised leaflet shall be used with specific Project's information and objectives and participants shall use grievance redress mechanism (GRM) specific for improvement of the Site Specific ESIA/ESMP.

For Public Consultation process, a Non-technical Report shall be developed based on mitigation measures presented in the site specific ESMP in the Romanian language to be accessible for local community in a simple and understandable format. The Non-Technical Report shall be submitted to the community from villages Albota de Sus, Albota de Jos, Balabanu, Novosiolovca, Aluatu, Salcia, Musaitu and Vinogradovca and the Taraclia District and shall be published on the web page of the District.

The following web sites can be accessed to and are available for find out much more information about the project implementation process: (i) www.mepiu.md and (ii) www.moldelectrica.md.

12.2 Installation of the Site Informational Panel on the construction site

The site informational panel shall be displayed on the construction site at a visible place at the main entrance to the site or in another place after consultation with MEPIU/ME.

The information panel shall be made of waterproof and reinforced materials, which will contain the following information: Contract Name, Financing Entities, Employer, Beneficiary, Contractor, Engineer/Consultant, Contract value, Contract duration, Start and finish of the works.
The site information panel will be located after obtaining the Construction Authorisation, from the start of the construction works until the final acceptance of the object.

The site informational panel shall contain the communication channels with GRM (e-mail addresses, phone numbers, etc.) for submitting feed-back or grievances from community and other interested parties of the (i) Employer, (ii) Beneficiary, (iii) Contractor, (iv) Engineer/Consultant, the Leova District, and present all three levels of communication channels (for Level I (SIMC Commune), Level II District SIMC and Level III

(MEPIU/MoEn/WB) and include e-mails addresses , phone numbers, etc. for submitting feed-back or grievances from community and other interested parties.

12.3 Consultation and Participation

12.3.1 Consultation and participation of workers

Contractor shall consult workers and / or their representatives and allow them to take part in discussions on all questions relating to safety and health at work.

This presupposes (i) the consultation of workers, (ii) the right of workers and/or their representatives to make proposals, and (iii) balanced participation in accordance with national laws and /or practices.

Workers or workers' representatives with specific responsibility for the safety and health of workers shall take part in a balanced way, in accordance with applicable OHS law of Republic of Moldova and WB, or shall be consulted in advance and in good time by the employer with regard to any measure which may substantially affect safety and health and other aspects.

Workers' representatives with specific responsibility for the safety and health of workers shall have the right to ask the contractor to take appropriate measures and to submit proposals to him to that end to mitigate hazards for workers and/or to remove sources of danger.

12.3.1 Consultation and participation of the community

The community play a key role in the project implementation by monitoring social aspect of not disturbing community day-to day activities at home or in the field. The SIMC procedure is described in the SIMC Regulation developed by MEPIU. The SIMC procedure shall be implemented by MEPIU with the support of the Construction Supervision Engineer.

The site informational panel shall be displayed on the construction site at a visible place at the main entrance to the site or in another place after consultation with Taraclia District Council/SIMC members and all interested parties and community can use available channels of communication or the Grievance Redress Mechanism for submitting complaints, proposals, information, petitions, etc. to be analyzed and discussed at the SIMC meetings.

In this sense a Social Impact Monitoring Committee (SIMC) has been created in the Taraclia District (level II) and for level I (construction sites) in the villages Albota de Sus, Albota de Jos, Balabanu, Novosiolovca, Aluatu, Salcia, Musaitu and Vinogradovca. Affected people from the villages Albota de Sus, Albota de Jos, Balabanu, Novosiolovca, Aluatu, Salcia, Musaitu and Vinogradovca shall submit in written form the complaint, request for change, proposal for improvement of the construction process to the SIMC of level I established in each village. The SIMC from each village shall organize the meeting and shall discuss and identify solution for solving non-conformity. Not solved problem at level I SIMC, the problem shall be solved at the SIMC level II, by the specialists from the Taraclia District.

The Chairman of the SIMC (level II) is the Chairman of the Taraclia District and the representative of the CSE is the secretary. All social aspect coming from people has to be discussed at the SIMC meeting and all nonconformities have to be solved together with the Contractor. The Contractor representative shall be present at the SIMC meeting as the invitee member.

Since the 400 kV OHTL passes through various communities, an integrated approach will be in communicating with each locality in order to see its specifics. In particular, we are talking about elderly people, national minorities, vulnerable people from an economic, health point of view, etc. In each locality we will make sure that all these people know about the Project, about the impact that the activities will have on their lives and on the locality; health and safety, environmental, social, economic and cultural risks and mitigation measures proposed. We will also provide detailed information about PAPs and how it will be - temporary or permanent impact, direct or indirect impact. Likewise, we will inform in the language he understands best what his rights are and the ways to obtain the information he/she is interested in, as well as where can file a complaint if necessary.

In this regard, a community satisfaction survey shall be carried out in a three-stages survey to determine the level of community satisfaction on the engagement process in the Project implementation specific for (i) starting the construction works/design stage, (ii) during the construction works and (iii) completion of the construction works. Satisfaction Survey Report shall be part of the present document.

13 Annexes

13.1 The Incident Report template
13.2 The Nonconformity and Corrective Actions Report template
13.3 The feedback form for public consultation process template
13.4 The Public Consultation Report template
13.5 The Human Resource Plan template (is part of the LMP)
13.6 Avian Risk Assessment Report specific for construction stage (is a stand-alone document and is published on MEPIU’s web site)
13.7 Avian Risks Assessment Report specific for operational stage (is a stand-alone document and is published on MEPIU’s web site)
13.8 Resettlement Action Plans (is a stand-alone document)
13.9 Stakeholder Engagement Plan
13.10 Archaeological Certificates issued by the national Archaeological Agency are published on MEPIU’s web site
13.11 Labor Management Plan (LMP) (is a stand-alone document)

Annex 13.1: The Incident Report form

INCIDENT REPORTING FORM			
General Information			
Project Name, Activity			
Name of Project Implementing Agency			
Name of Contractor and subcontractors			
Name, position and company of main person(s) involved with/ causing the Incident			
Details about Accident / Incident			
Date and time of incident			
Location of incident			
Type of incident	*E.g. Fatality, Injury, major oil spill, social unrest, outbreak of violence, labor strikes etc.*		
Detailed description of incident (attach photos if needed)	*Describe in detail what has happened in a chronological manner. Who was involved? Which activities were performed? Under which external circumstances did the incident occur? What was the reason for the Incident? Etc.*		
Describe victims and damage	*Fatalities (including number deceased and differentiating between employee/ contractor fatalities and members of the public).* *Number injured (mention hospitalizations/ loss of limb).* *Number of injured in the community (if any).* *Loss/ damage to company facilities or operating environment.* *Environmental damage (e.g. water pollution, etc.).*		
Describe immediate response	*Which immediate activity was taken? E.g. construction activities interrupted, first aid given, injured person taken to hospital, police informed, task force implemented etc.*		
Describe long-term response	*Describe long-term activities to prevent this incident to happen again. Describe further investigations if any. Describe how lessons learned will be shared among employees.*		
Incident Report Approval			
	Position	**Name**	**Date**
Prepared by			
Approved by			

Annex 13.2: The Nonconformity and Corrective Actions Report form

Part A: Nonconformity Report			
Non-conformance (To be completed by NCR Preparer or Auditor):			
Title of NCR:			
NCR Number:		**Date Issued:**	
NCR Prepared By:		**NCR Issued To:**	
Job Title		**Job Title**	
CS Engineer		**Contractor**	
EHSS Expert		**Subcontractor**	
Details of the Non-conformance (To be completed by NCR Preparer or Auditor)			
Major ☐		**Minor** ☐	
Description Insert a clear and concise description of the Non-conformance identified and any additional supporting documents (such as reports, drawings, photographs, etc.) evidencing the situation/problem identified, and attach to the NCR.			
Requirement relating to the Non-conformance Insert details of the relevant governance document(s) such as contract, procedure, specification or standard, as applicable (including any Document Reference Numbers)			
Part B: Classification of aspects and dangers			
For reporting/benchmarking purposes, Non-conformances are classified into at least one of six categories. Tick the most appropriate options below			
	To be completed by NCR Preparer or Auditor		
	1	**Materials**	
	2	**Machine & equipment**	
	3	**Measurement (monitor and control by management)**	
	4	**Manpower (training included)**	
	5.	**Methods (workmanship included)**	
	6	**Health and safety**	
	7.	**Environment and Social**	
Details of the Root Cause Documentation Refer any internal meetings, investigations, audits that took place to identify and confirm root cause and attach any relevant records (Minutes, reports etc.)			
Time table:			
Proposed by: Name:		Date:	
Reviewed by: Name:			

Signature: Date:			
Part C: Remedial (Correction) and Corrective Action(s) to address Non-conformance			
Correction Actions (To be completed by the Responsible Manager) Insert a clear and concise description of the Correction (Remedial Action to be taken to rectify the Major Non-conformance identified)			
Proposed by **Name of Responsible Manager:**		**Job Title:**	
Planned Completion Date: (Specify an appropriate and realistic date)		**Signature:**	
Reviewed by (Name of NCR Issuer or Issuer Line Manager)	**Date:**	**Signature**	
Corrective Action(s) (To be completed by Responsible Manager): Please insert details of the Corrective Action to be taken to prevent recurrence of the identified Non-conformance.			
Proposed by: **Name of Responsible Manager:**		**Job Title:**	
Expected Timescale: (Specified date; monthly; periodic; on-going; etc.)		**Signature:**	
Reviewed by (Name of NCR Issuer or Issuer Line Manager)	**Date:**	**Signature**	
Part D: Closure of Non-conformance			
Verification of completion of the Corrective Action(s) (To be completed by NCR Preparer or Auditor)			
Verified Complete (Select as applicable)	**Yes** □ **No** □	**The Corrective Action(s) above have been satisfactorily completed by the relevant Responsible Manager.**	
Comments:			
Verified by NCR Preparer or Auditor:			
Name:		**Date:**	
Job Title:		**Signature:**	
Reviewed/Approved by: (Lead Auditor, Quality Manager or other Senior Manager as per applicable NCR Procedure)			
Name:		**Date:**	
Job Title:		**Signature:**	

Annex 13.3: The feedback form for public consultation process

Reference No: *(to be completed by MEPIU)*	Received by: _____ Solved by: _____ Date of initial response: _____
Full Name: *(to be completed by the person lodging the complaint)* *Note: you can remain anonymous if you prefer or request not to disclose your identity to the third parties without your consent*	My first name: _____ My last name: _____ Company/Position in the company: _____ ☐ I wish to raise my grievance anonymously ☐ I request not to disclose my identity without my consent
Contact Information: *(to be completed by the person lodging the complaint)* Please mark how you wish to be contacted (mail, telephone, email).	☐ By Post: Please provide mailing address: _____ ☐ By phone: _____ ☐ By e-mail: _____
Preferred Language for Communication: *(to be completed by the person lodging the complaint)*	☐ Romanian ☐ Russian
Description of Complain or Request: (to be completed by the person lodging the complaint)	☐ Yes ☐ No
Description of Complain or Request: *(to be completed by the person lodging the complaint)*	What can happen? Where and How could it happen? What are the consequence / impact of this issue?
Date of Complain/Request: *(to be completed by the person lodging the complaint)*	DD / MM / YYYY _____
What would you like to see happening in order to solve this issue? _____ _____ _____ _____ _____ _____ _____	

Annex 13.4: Public Consultation Report template

1. Purpose of stakeholder engagement within the site specific ESIA/ESMP – short description why needs to engage stakeholders, responsible for engagement in the risk assessment process specific for design phase;
2. Stakeholder engagement and consolation processes for Chisinau Substation – here should be provided preliminary plan of engagement with scoping of engagement, objectives, stakeholders who will be engaged, activities during engagement and main documents that will be consulted.
3. Previous SE and Consultations – here should be described consultations that have already been conducted with attached as Annex evidence (photos, protocols, feedbacks).
4. Stakeholder Engagement Plan – short description of this document and link to the Annex where it should be attached. Also link where this document was disclosed.
5. Public disclosure of and consultations for the ESIA and associated documents – here need to describe disclosure procedure of ES risk assessment and describe consultations inputs that will be made during disclosure with photo evidence, protocols, feedbacks.

Annex 13.5: The Human Resource Procedure template

The Human Resource Procedure

1. Introduction
2. Objectives
3. Scope of application
4. Requirements for compliance with applicable laws of Republic of Moldova and WB
5. Requirements for employment process and terms of employment
6. Requirements for workforce protection
7. Requirements specific for Grievance Redress Mechanism (GRM) specific for HR process,
8. Requirements for monitoring the HR process and management of document,
9. Requirements for reporting process to Construction Supervision Engineer and MEPIU,
10. Records management

Annex 13.6: Public Consultation Report for ESIA&ESMP specific for the 400 kV OHTL and Chisinau SS.

POWER SYSTEM DEVELOPMENT PROJECT

(P160829)

THE DETAILED DESIGN STAGE

ENVIROMENTAL AND SOCIAL IMPACT ASSESSMENT & ESMP FOR 400 KV OHTL VULCANESTI – CHISINAU

Public Consultation Report

November 2023

Table of content

1. INTRODUCTION 203

2. PUBLIC DISCLOSURE 203

3. PUBLIC HEARING 205

4. MAIN COMMENTS AND PROPOSALS 206

5. CONCLUSION 207

6. APPENDIX 209

6.1 MINUTES OF MEETINGS 209
6.2 Letters to Rayonal Councils and SIMCs about organization of public Consultations 216
6.3 Public consultations pictures by locality 219
6.4 The list of attendances by locality 226
6.5 The list of media sources that reflected the public consultations 240

1. Introduction

The initial public consultation was organized in District Centers and Mayoralty of the Commune Bacioi (Chisinau Mayoralty) to bring the progress of preparing ESIA & ESMP at the design stage to community, SIMC members and other interested parties and also to provide the identified main environmental & social impacts and proposed mitigation measures for controlling risks. Also, it was presented the specific information about the Project context and plans for works.

According to the environmental and social requirements specified in the Environmental Permit[108] no. 1/4745 of December 31 2019 4745/2019 issued by the Environmental Agency for the Project PDSE, the environmental and social impact assessment at the design stage with mitigation measures in ESMPs shall be public disclosed and consulted with affected localities and affected peoples. ESIA & ESMPs Reports have been published on the websites of MEPIU an Moldelectrica on September 2023 for Cahul District and the Bacioi Commune and October 31, 2023 for the rest Districts Ialoveni, Hincesti, Cimislia, Leova, Taraclia, ATU Gagauzia in order to be consulted by community, stakeholders and other interested parties and use communication channel for submitting proposals, suggestions for improvement, complaints and other information. A Non-technical Summary Report with information from ESIA & ESMP has been developed and published on web pages of MEPIU, Moldlectrica and Districts. Summary hard copies of these documents were accessible to public and at the offices of local authorities of the Project area. The disclosure period for the ESIA&ESMP report is 30 days.

Stakeholder engagement formally ensured through public hearing meetings to be held after the 30 days disclosure period with involvement of all stakeholders. The records of these public consultations, announcements, minutes and lists of attendees, etc. will be presented to the WB who will file them in their operational portal for their own records. The records including minutes should be made publicly available at the local head office for the resident's information in a format appropriate for disclosure (ie. without any personal data).

2. Public disclosure

A Non-technical Summary Report[109] and grievance form was published on MEPIU's website on October 2, 2023 and on web pages of Districts.

The draft final ESIA/ESMPs[110] were published on MEPIU web site[111] on September and October. The letters to Districts have been sent within 15 days before organization of the public consultation (November 1st, 2023) and requested Administration of Districts to host the public meeting. A PPT was presented to the audience for environmental & social aspects. MEPIU also provided leaflets in Romanian and Russian languages to each participant with information

[108] Source: https://www.moldelectrica.md/files/docs/md_ro_project/Acord_de_Mediu_BtB_LEA_400%20kV_Vulcanesti-Chisinau.pdf
[109] Source: Documentația de evaluare a impactului de mediu și social și a planurilor de management de mediu și social specific amplasamentelor pentru LEA 400 kV și Stația Electrică Chișinău, elaborate la etapa de proiectare detaliată (mepiu.md)
[110] Source: Proiectul de Dezvoltare a Sistemului Electroenergetic (PDSE) (mepiu.md)
[111] Source: https://www.mepiu.md/eng/current-projects/power-system-development-project-psdp-1

about Project and contact information of MEPIU, Moldelectrica and the World Bank. Several posters for each mayoralty were provided to be placed in respective settlements.

Posters applicable within the public consultation process (small and big formats)

3. Public hearing

The public meetings were scheduled as follows:

Date	Hour	Locality	Location
23.11.23	10.00	Bacioi	Commune Bacioi Mayoralty
	12.00	Ialoveni District	District Council Hall
24.11.23	10.00	Cimislia District	District Council Hall
	13.00	Hancesti District	District Council Hall
28.11.23	10.00	Cahul District	District Council Hall
	13.00	Leova District	District Council Hall
29.11.23	10.00	Comrat (UTA Gagauzia)	District Council Hall
	13.00	Taraclia District	District Council Hall

The team of presenters was:
- Mr. Veaceslav Vladicescu, Environmental Individual Consultant
- Mr. Anatol Burlacu, EHS Specialist of MEPIU
- Mrs. Ala Rotaru, Social Specialist of MEPIU
- Mrs. Elena Junghina, Communication and Public Information Specialist of MEPIU

Also, representatives Contractor were presented at the public consultation.
Total number of participants were 101, in 8 meetings. From which 38% - women.

Meeting location	Men	Women	Total
Cahul	8 or 72.7 %	3 or 27.3 %	**11**
Leova	10 or 66.7 %	5 or 33.3 %	**15**
Bacioi	6 or 35.3 %	11 or 64.7 %	**17**
Ialoveni	7 or 53.8 %	6 or 46.1 %	**13**
Hancesti	6 or 66.7 %	3 or 33.3 %	**9**
Cimislia	9 or 90 %	1 or 10 %	**10**
Comrat	10 or 71.4 %	4 or 28.6 %	**14**
Taraclia	7 or 58.3 %	5 or 41.7 %	**12**
Total	**63 or 62.4 %**	**38 or 37.6 %**	**101**

At the public consultation the following environmental and social topics were presented to the interested public with support from MEPIU and Contractor specialists:
- General information about purpose of ESIA documentation and the Project context;
- Detailed design elements of the project in the area of locality;
- Project's positive involvements on the community through SIMCs and role and responsibilities;
- Specific identified possible impacts on the environment and population;
- Specific mitigation measures proposed;
- Grievances redress mechanism (GRM);

- SIMC role and responsibilities;
- Contact information of stakeholder (GRM) (MEPIU, MoEn, Moldelectrica, WB, SIMC)

4. Main comments and proposals

Cahul

1. *The LPA from rayon but also mayoralties is supporting this project. The population did not see any problems if they will receive a good price for their lands.*
2. *The questions probably will be in each locality related with particular cases of valuation of land plots and access to their lands during construction.*
3. *Related with environmental and social no any questions as Environmental Agency already issued the Environmental Permit.*

Leova

1. *The Head of the Leova District mentioned about need for a long- term support for the rayon regarding compensation for lands of owners.*
2. *The representants of affected community - Borogani mentioned that the OHTL route was changed with about 130 m from previous location due to first public consultations and following letters and discussions with MEPIU (now the distance from the village is more than 250 m). The mayor is still not sure if OHTL is sufficient far from locality related with health of population and have concerns about influence of OHTL electromagnetic waves to population.*
3. *Also, it was concerns if electromagnetic waves can affect the agricultural production in OHTL protection zones and surrounding areas.*
4. *Mayor also asked if mayoralty will receive compensations for public land transferred to state. Also, for private lands that is acquired from PAPs and transferred to state mayoralty will lose a source of income for local budget (local taxes), even this is a small amount over the years can be an important sum.*
5. *Concerns that grievances from population and participation on SIMC will be an additional job time-consuming for LPA.*

Bacioi

1. *The main concern is about land price that will be proposed.*
2. *The possibility to change the other OHTL in the village to be relocated to avid the village area.*

Ialoveni

1. *Access to agricultural lands needs to be maintained properly during the construction stage, mentioned LPA.*
2. *The PAP asked what will be if he has already detailed design ready for warehouse in the protection zone of the OHTL.*

Hancesti

1. *Deputy chairman of district do not see the role and implications of the District Council in resettlement issues. He did not see the need of SIMC at the rayon level but just at the local level.*
2. *Concerns that grievances from population will be an additional job time-consuming for LPA.*
3. *Also, he is looking for some financial benefit for rayon from this Project.*

Cimislia

1. *Deterioration of local and agricultural roads due to OHTL construction activities*
2. *The rayon LPA have extensive experience in land acquisitions as they offered support in already 2 greenfield road projects (Porumbrei and Cimislia bypasses financed by IFIs).*
3. *The need for better explanation to PAPs is needed in the future consultations with PAPs related with land valuation process and servitude contracts in the future.*

Comrat (UTAG)

1. *Mayors are concerned about possible restrictions in land use for OHTL protection zones and how this will affect the agricultural incomes.*
2. *They mentioned also about importance of fair compensation of all PAPs.*
1. *Deterioration of local & agricultural roads due to OHTL construction activities.*
3. *Asks about possibility of local job creation by Project (temporary & permanent jobs).*
4. *Question about if works will be in the harvest period the people will be compensated for lost.*
5. *Question about influence on birds.*

Taraclia

1. *If the Detailed design was consulted with rayon authorities, received urbanism certificate.*
2. *If the surveys were done in the fields or just from existing maps.*
3. *Express concerns if electromagnetic waves can affect the agricultural production in OHTL protection zones and surrounding areas.*
4. *Asks about possibility of local job creation by Project thru mayoralty as they know better the specialists in their locality.*
5. *Questions about land prices.*
6. *Deterioration of soil, local and agricultural roads due to OHTL construction activities.*

5. Conclusion

Most of the discussions, questions and proposals raised during public hearings were linked with:

- Land acquisition processes & mechanism of land valuations & schedule of land compensations.
- Restrictions to agricultural use during and after Project interventions.
- Health & Safety issues regarding OHTL electromagnetic influences near the localities

- Possibility to provide local jobs linked to OHTL construction.
- Concerns related with mayoralty incomes due.
- Concerns that grievances from population will be an additional job / time-consuming for LPA
- Necessity to ensure a higher level of communication and information to the population, more preferably through the mass-media.

6. Appendix

o 6.1 MINUTES OF MEETINGS

Minutes of meeting
Environmental & Social Impact Assessment for OHTL and Chisinau SS

	Date	28.11.2023
	Time	10.00 - 11.00
	Location	**Cahul District Council**
	Consultants/ moderators	Mr. Veaceslav Vladicescu, Mr. Anatol Burlacu, Mrs. Ala Rotaru, Mrs. Elena Junghina
	No. of participants	11 | List of attendance - attached
	Topics presented by Consultant	- General information about purpose of ESIA documentation - General information about Project - Detailed design elements of the project & location in the area of locality - Project's involvements for the community and impact corridor. - Specific identified possible impacts on the environment and population - Specific mitigation measures proposed. - Grievances redress mechanism (GRM) - Contact information of stakeholder (MEPIU, Moldelectrica, MoEn, WB etc.) - SIMC role and responsibilities - About RAP and future public consultations in each affected locality.
	The questions raised and/or received proposals of participants:	***Answers / comments of moderators / consultants:***
1	*The LPA from rayon but also mayoralties is supporting this project.*	The Project is for entire country so the supporting from each level is important.
2	*The population did not see any problems if they will receive a good price for their lands*	The RAP document and RAP public consultations will answer to all questions related with land acquisitions and compensations. The price will be established by the IPOT, according to the provisions of the land sale-purchase legislation
3	*The questions probably will be in each locality related with particular cases of valuation of land plots and access to their lands during construction.*	In each affected locality will be the RAP consultations organized in a few months after the draft RAP document will be accepted by WB and publicly disclosure.
4	*Related with ES no any questions as Environmental Agency already issued the Environmental Permission*	Yes, the *Environmental Agency already gave the Environmental Permission and is valid for the entire construction period.*
	Conclusion	**Acceptance of the Project is High. Limited concerns still appear especially on the land issues.**

Minutes of meeting
Environmental & Social Impact Assessment for OHTL

	Date	28.11.2023
	Time	10.00 - 11.30

	Location	Leova District Council	
	Consultants/ moderators	Mr. Veaceslav Vladicescu, Mr. Anatol Burlacu, Mrs. Ala Rotaru, Mrs. Elena Junghina	
	No. of participants	15	List of attendance - attached
	Topics presented by Consultant (inclusive PPT)	- General information about purpose of ESIA documentation - General information about Project - Detailed design elements of the project and location in the area of locality - Project's involvements for the community and impact corridor. - Specific identified possible impacts on the environment and population - Specific mitigation measures proposed. - Grievances redress mechanism - Contact information of stakeholder (MEPIU, Moldelectrica, MIRD, WB etc.) - SIMC role and responsibilities - About RAP and future public consultations in each affected locality.	
	The questions raised and/or received proposals of participants:		***Answers / comments of moderators / consultants:***
1	*The Head of Leova Rayon mentioned about need for a long-term support for the rayon and mayoralty not just compensation for lands of owners.*		The GoM is supporting LPAs from other budget lines and with finances from IFIs on social, education, roads, etc.
2	*The representants of affected community - Borogani mentioned that the OHTL route was changed with about 130 m from previous location due to first public consultations and following letters & discussions with MEPIU.*		It is considered positive feedback from LPA
3	*Also, it was concerns if electromagnetic waves can affect the agricultural production in OHTL protection zones & surrounding areas.*		According to local and international data, no evidence impact of electromagnetic waves to agricultural production.
4	*The Mayor is still not sure if OHTL is sufficient far from locality related with health and environmental protection. Population have concerns about influence of OHTL electromagnetic waves to health.*		It was mentioned that in country there are OHTL constructed near settlements. Afraid about H&S is understandable but the safety corridor of 70 m is ensured more than double need.
5	*Mayor also asked if mayoralty will receive compensations for public land transferred to state. Also, for private lands that is acquired from PAPs and transferred to state mayoralty will lose a source of income for local budget (local taxes), even this is a small amount over the years can be an important sum.*		Not. This is a Project for national purpose and public land has different status including in LPA administration. Transferring one land from municipality to other state body according to the Law is for free. Related with lost of local taxes is considered neglectable as small surfaces of land for each locality will be transferred. But these questions regarding local taxes are not within the scope of the project and it was recommended to address the MF for clarifications on the transposition of fiscal legislation.
6	*Concerns that grievances from population and participation on SIMC will be an additional job time-consuming for LPA.*		The first stage of submitting grievances is SIMC of level I with the support of the Construction Supervision Engineer, who will resolve them and inform MEPIU. The SIMC Level1 competences has roles and responsibilities to receive and solve grievances from SIMC level I. In case it will not be possible to solve the problems by the LPA or SIMC, within 3 days, according to the legislation, they can redirect the complaint to other responsible authorities and with a copy to the MEPIU.

		Anyway, at all stages of the Project's implementation, MEPIU will provide any support to SIMC for the resolution of all grievances and has designated responsible specialists in this regard.
	Conclusion	**Acceptance of the Project is moderate.**

Minutes of meeting
Environmental & Social Impact Assessment for OHTL and Chisinau SS

	Date	23.11.2023	
	Time	10.00 - 11.15	
	Location	**Bacioi LPA premises**	
	Consultants/ moderators	Mr. Veaceslav Vladicescu, Mr. Anatol Burlacu, Mrs. Ala Rotaru, Mrs. Elena Junghina	
	No. of participants	17	List of attendance - attached
	Topics presented by Consultant (inclusive PPT)	- General information about purpose of ESIA documentation - General information about Project - Detailed design elements of the project and location in the area of locality - Project's involvements for the community and impact corridor. - Specific identified possible impacts on the environment and population - Specific mitigation measures proposed. - Grievances redress mechanism - Contact information of stakeholder (MEPIU, Moldelectrica, MoEn, WB etc.) - SIMC role and responsibilities - About RAP and future public consultations in each affected locality.	
	The questions raised and/or received proposals of participants:		***Answers / comments of moderators / consultants:***
1	*The main concern is about land price that will be proposed*		The RAP document is under development and will answer to these questions. Another meeting specially on RAP will be organized in the next months with SIMC members and affected people.
2	*The possibility to change the other OHTL in the village to be relocated to avid the village area. (not part of this Project)*		A separate meeting on these issues has to be organized with Moldelectrica. The density of lines near Chisinau SS is high and there are limitations in changes of OHTL route.
	Conclusion		**The Project has good acceptance.**

Minutes of meeting
Environmental & Social Impact Assessment for OHTL

	Date	23.11.2023	
	Time	12.00 - 13.30	
	Location	**Ialoveni Rayonal Council**	
	Consultants/ moderators	Mr. Veaceslav Vladicescu, Mr. Anatol Burlacu, Mrs. Ala Rotaru, Mrs. Elena Junghina	
	No. of participants	13	List of attendance - attached
	Topics presented by Consultant (inclusive PPT)	- General information about purpose of ESIA documentation - General information about Project - Detailed design elements of the project and location in the area of locality - Project's involvements for the community and impact corridor. - Specific identified possible impacts on the environment and population - Specific mitigation measures proposed.	

		- Grievances redress mechanism - Contact information of stakeholder (MEPIU, Moldelectrica, MoEn, WB etc.) - SIMC role and responsibilities - About RAP and future public consultations in each affected locality.
	The questions raised and/or received proposals of participants:	***Answers / comments of moderators / consultants:***
1	*Access to agricultural lands needs to be maintained mentioned LPA even during construction period.*	The access to the land that will not be permanently affected can be restricted temporary. If some restriction will be during harvest period the compensations will be provided according to RAP provisions.
2	*The PAP asked what will be if he have already detailed design ready for warehouse in the protection zone of the OHTL.*	This question has to be examined separately but in the 70m of OHTL protection zone is not possible to build any constructions.
3	The representatives of the business company from the v. Costesti were satisfied that their complaints were resolved positively, by making the necessary changes in the technical project for the redesign of the 400 kV overhead power line (LEA).	It is considered positive feedback from LPA
	Conclusion	**Project Public acceptance - high**

Minutes of meeting
Environmental & Social Impact Assessment for OHTL

	Date	24.11.2023	
	Time	13.00 - 13.45	
	Location	**Hancesti District Council**	
	Consultants/ moderators	Mr. Veaceslav Vladicescu, Mr. Anatol Burlacu, Mrs. Ala Rotaru, Mrs. Elena Junghina	
	No. of participants	9	List of attendance - attached
	Topics presented by Consultant (inclusive PPT)	- General information about purpose of ESIA documentation - General information about Project - Detailed design elements of the project and location in the area of locality - Project's involvements for the community and impact corridor. - Specific identified possible impacts on the environment and population - Specific mitigation measures proposed. - Grievances redress mechanism - Contact information of stakeholder (MEPIU, Moldelectrica, MoEn, WB etc.) - SIMC role and responsibilities - About RAP and future public consultations in each affected locality.	
	The questions raised and/or received proposals of participants:	***Answers / comments of moderators / consultants:***	
1	*Deputy president of rayon do not see the role and implications of rayon council in resettlement issues. He did not see the need of SIMC at the rayon level but just at the local level.* *Concerns that grievances from population will be an additional job time-consuming for LPA.*	The MEPIU team explained the role Rayon LPA in this project and this is in the Law no. 120/2022. Also, the role of LPA and created SIMCs Level I and II l is to be a liaison between population & MEPIU. It was mentioned, that at all stages of the Project's implementation, MEPIU will provide any support to SIMCs Level I & II for the examination of all grievances and has designated responsible specialists in this regard.	
2	*Also, he is looking for some financial benefit for rayon from this Project.*	The benefit will be for entire county.	

	Conclusion	**Project Public acceptance - high**

Minutes of meeting
Environmental & Social Impact Assessment for OHTL

	Date	24.11.2023	
	Time	10.00 - 11.30	
	Location	**Cimislia District Council**	
	Consultants/ moderators	Mr. Veaceslav Vladicescu, Mr. Anatol Burlacu, Mrs. Ala Rotaru, Mrs. Elena Junghina	
	No. of participants	10	List of attendance - attached
	Topics presented by Consultant (inclusive PPT)	- General information about purpose of ESIA documentation - General information about Project - Detailed design elements of the project and location in the area of locality - Project's involvements for the community and impact corridor. - Specific identified possible impacts on the environment and population - Specific mitigation measures proposed. - Grievances redress mechanism - Contact information of stakeholder (MEPIU, Moldelectrica, MoEn, WB etc.) - SIMC role and responsibilities - About RAP and future public consultations in each affected locality.	
	The questions raised and/or received proposals of participants:		***Answers / comments of moderators / consultants:***
1	*Deterioration of local and agricultural roads due to OHTL construction activities*		The used roads by Contractor have to be leaved at least in the same conditions as before the Project. So, Contractor is obliged if damaged of some portion of the road to restore the road at the initial conditions.
2	*The rayon LPA have extensive experience in land acquisitions as they offered support in already 2 greenfield road projects (Porumbrei and Cimislia bypasses financed by IFIs).*		Yes, your experience in land acquisition will be very valuable in the Project and speedup the process of finding PAPs and working with papers. It is considered positive feedback from LPA
3	*The need for better explanation to PAPs is needed in the future consultations with PAPs related with land valuation process and servitude contracts in the future.*		Yes, in each locality will be organized public consultations with PAPs on RAP and after will be separately confidential negotiations on land issues. The price will be established by the IPOT, according to the provisions of the land sale-purchase legislation.
4	The representatives of the District Council recommended the cooperation with the local Television, for better information and communication procedures with the population.		The recommendation was considered acceptable and welcome. MEPIU representatives took the coordinates of the local Television office
	Conclusion		**Project Public acceptance - high**

Minutes of meeting
Environmental & Social Impact Assessment for OHTL

	Date	29.11.2023	
	Time	10.00 - 11.30	
	Location	**Comrat Municipality, ATU Gagauzia premises**	
	Consultants/ moderators	Mr. Veaceslav Vladicescu, Mr. Anatol Burlacu, Mrs. Ala Rotaru, Mrs. Elena Junghina	
	No. of participants	14	List of attendance - attached

	Topics presented by Consultant (inclusive PPT)	- General information about purpose of ESIA documentation - General information about Project - Detailed design elements of the project and location in the area of locality - Project's involvements for the community and impact corridor. - Specific identified possible impacts on the environment and population - Specific mitigation measures proposed. - Grievances redress mechanism - Contact information of stakeholder (MEPIU, Moldelectrica, MIRD, WB etc.) - SIMC role and responsibilities - About RAP and future public consultations in each affected locality.
	The questions raised and/or received proposals of participants:	***Answers / comments of moderators / consultants:***
1	*The mayors are concerned about possible restrictions in land use for OHTL protection zones and how this will affect the agricultural incomes.*	Some restrictions of course will be: a) carrying out constructions, capital repairs, reconstructions or demolition buildings and constructions; b) execution of any mining, loading-unloading, dredging, dynamiting works and improvement, planting and cutting trees and shrubs, installing dams, trellises for vineyards and orchards; c) the passage of cars and mechanisms, with or without a load, having a height over 4.5 m from the road surface; d) planting green areas with perennial plantations; e) the location of car fueling stations and other fuel depots and lubricants demolition or reconstruction of buildings, bridges, tunnels, railways, roads and other constructions in the places where overhead power lines etc.
2	*They mentioned also about importance of fair compensation of all PAPs.*	All these aspects are described in RAP and will be discussed on other meeting but *fair compensation of all PAPs is one of the most important criteria of good implementation and a key monitoring indicator.* The price will be established by the IPOT, according to the provisions of the land sale-purchase legislation. Consultations on the RAP will be organized in each locality separately, with the participation of the owners of the affected lands
3	*Deterioration of local and agricultural roads due to OHTL construction activities*	The used roads by Contractor have to be leaved at least in the same conditions as before the Project. So, Contractor is obliged if damaged some portion of the road to restore to it initial conditions.
4	*Asks about possibility of local job creation by Project (temporary & permanent jobs).*	Contractor reported that already established his office and warehouse/storage area in the v. Chirsova, UTAG. They, hired already locals and intend to do more in the future depending of Project needs.
5	*Question about if works will be in the harvest period the people will be compensated for lost.*	The access to the land that will not be permanently affected can be restricted temporary. If some restriction will be during harvest period the compensations will be provided according to RAP provisions.
6	*Question about influence on birds.*	A special birds impact survey (avifauna) was developed in 2022. This study identified the corridors of migration of birds, most vulnerable and endangerers species and proposed mitigation measures that are part of ESIA/ESMP. Also, in the design the artificial nesting places will installed to several polls.
	Conclusion	**Acceptance level of Project is high.**

Minutes of meeting

Environmental & Social Impact Assessment for OHTL

	Date	29.11.2023	
	Time	14.00-15.00	
	Location	**Taraclia, House of Culture**	
	Consultants/ moderators	Mr. Veaceslav Vladicescu, Mr. Anatol Burlacu, Mrs. Ala Rotaru, Mrs. Elena Junghina	
	No. of participants	12	List of attendance - attached
	Topics presented by Consultant (inclusive PPT)	- General information about purpose of ESIA documentation - General information about Project - Detailed design elements of the project and location in the area of locality - Project's involvements for the community and impact corridor. - Specific identified possible impacts on the environment and population - Specific mitigation measures proposed. - Grievances redress mechanism - Contact information of stakeholder (MEPIU, Moldelectrica, MoEn, WB etc.) - SIMC role and responsibilities - About RAP and future public consultations in each affected locality.	
	The questions raised and/or received proposals of participants:		***Answers / comments of moderators / consultants:***
1	*If the Detailed Design was consulted with rayon authorities, received urbanism certificate and other permission documents.*		The DD was approved by state institutions. The DD cannot be started without Urbanism Certificates. The District authorities has to receive the design in order to be able to sign the Construction authorization. Partially, some of rayon already delivered to MEPIU the Construction authorizations.
2	*Deterioration of soil, local and agricultural roads due to OHTL construction activities.*		The soil layer, has to be removed and separately stored, used roads by Contractor have to be leaved at least in the same conditions as before the Project. So, Contractor is obliged if damaged some portion of the road to restore to the initial conditions.
3	*If the surveys were done in the fields or just from existing maps.*		The topographic survey and geological investigations were done in the field at the beginning of the project. The respective reports with pictures and locations are available and was used for DD and in the taken decision process.
4	*Express concerns if electromagnetic waves can affect the agricultural production in OHTL protection zones and surrounding areas*		According to local and international data, no evidence of impact because electromagnetic waves to agricultural production on OHTL protection zone of 70 meters.
5	*Asks about possibility of local job creation by Project thru mayoralty as they know better the specialists in their locality.*		Implication of mayoralty in helping Contractor to find specialists in the Project area are welcomed. This will be a useful help for both parties: Contractor and employees.
6	*Questions about land prices. The experience in the region with land expropriations for road construction was positive, especially on roads projects. The people received better prices than from the market.*		This is treated in RAP procedures. The price will be established by the IPOT, according to the provisions of the land sale-purchase legislation. Consultations on the RAP will be organized in the near future in each locality separately, with the participation of the owners of the affected lands.
	Conclusion		**The acceptance of the project is high.**

6.1 Letters to District Councils & SIMCs about organization of Public Consultations

UNITATEA CONSOLIDATĂ PENTRU IMPLEMENTAREA PROIECTELOR ÎN DOMENIUL ENERGETICII (UCIPE)

MOLDOVA ENERGY PROJECT IMPLEMENTATION UNIT (MEPIU)

str. Alecu Russo 1, bloc A1, of. 163, MD-2068, Chişinău
tel. +373-22-49-67-90, fax +373-22-49-67-90
E-mail: Pagina web:

1, Alecu Russo str., block A1, of. 163, Chisinău, MD-2068
tel. +373-22-49-67-90, fax +373-22-49-67-90
E-mail: Web page:

nr. 11/2-530 10.11. 2023

UAT Conform Listei

Copie:

Ministerul Energiei

Î.S. Moldelectrica

Prin prezenta, ne referim la implementarea Proiectului de Dezvoltare al Sistemului Electroenergetic din Republica Moldova pentru construcția liniei electrice aeriene (LEA) 400 kV Vulcănești-Chișinău și a stației electrice (SE) Chișinău, lucrările de construcție fiind declarate de utilitate publică și interes național în conformitate cu prevederile Legii nr. 120/2022 din 12.05.2022.

Astfel, la etapa de proiectare au fost evaluate riscurile de mediu și sociale specific fiecărui raion, iar măsurile propuse pentru controlul riscurilor de mediu și sociale urmează a fi consultate cu părțile interesate. Măsurile propuse pentru control al riscurilor sunt descrise succint în Rezumatul Non-tehnic. Rezumatul Non-tehnic urmează a fi publicat pe paginile web al Consiliilor Raionale pentru a asigura accesul publicului interesat la informația de mediu și socială specifică activității de construcție, iar comunicarea între părțile interesate și UCIPE/Beneficiarul Î.S. Moldelectrica se va asigura prin utilizarea mecanismului pentru soluționarea reclamațiilor descris în rezumat.

În acest sens, UCIPE solicită respectuos organizarea consultărilor publice de către Consiliile Raionale prin asigurarea prezenței reprezentanților Consiliilor Raionale, Primăriilor localităților afectate de activitățile proiectului, dar și a membrilor Comitetelor de monitorizare a impactului social (CMIS), create în localitățile afectate de lucrările de construcție, pentru a fi consultați despre măsurile de control al riscurilor de mediu și social de către Consultanții de mediu și social și suportul UCIPE și Î.S. Moldelectrica.

Anexă: Rezumat Non-tehnic Evaluarea impactului de mediu și social specific amplasamentului și PMMS/PAS pentru LEA 400 kV și stația electrică Chișinău

Cu respect,

Director **Ruslan SURUGIU**

Ex. Burlacu Anatol
e-mail:
tel. 068388796

Lista Consiliilor Raionale:

1. Consiliul Local Băcioi (mun. Chişinău)
2. Consiliul Raional Ialoveni
3. Consiliul Raional Hînceşti
4. Consiliul Raional Cimişlia
5. Consiliul Raional Leova
6. Consiliul Raional Cahul
7. Consiliul Raional Taraclia
8. Primăria mun. Comrat şi Vulcăneşti (UTAG)

Graficul de organizare a consultărilor publice în UAT:

Data	Ora	Locaţia
23.11.2023	10.00	Consiliul Local Băcioi
	12.00	Consiliul Raional Ialoveni
24.11.2023	10.00	Consiliul Raional Cimişlia
	13.00	Consiliul Raional Hînceşti
28.11.2023	10.00	Consiliul Raional Cahul
	13.00	Consiliul Raional Leova
29.11.2023	10.00	Consiliul Raional Comrat
	13.00	Consiliul Raional Taraclia

Lista Comitetelor de monitorizare a impactului social (CMIS)

Nr.	Denumire UAT	Numărul Comitetelor CMIS înfiinţate în UAT	Localităţi (sate şi comune)
1	Comuna Băcioi	1	Com. Băcioi
2	Raionul Ialoveni	4	Zîmbreni, Costeşti, Hansca şi Molesti
3	Raionul Cimişlia	10	Ivanovca Noua, Lipoveni, Gura Galbenei, Gradiste, Valea Perjei, Ecaterinovca, Javgur, Cenac, Topala şi or. Cimislia
4	Raionul Hînceşti	2	s. Buţeni, s. Fîrlădeni
5	Raionul Cahul	3	Burlaceni, Iujnoe şi Borceag
6	Raionul Leova	1	Borogani
7	UTA Găgăuzia	6	Dezghingea, Congazcicul de Jos, Chirsova, Congaz, Svetlii şi or. Vulcanesti
8	Raionul Taraclia	8	Albota de Sus, Albota de Jos, Balabanu, Novosiolovca, Aluatu, Salcia, Musaitu şi Vinogradovca

UNITATEA PENTRU IMPLEMENTAREA PROIECTELOR ÎN DOMENIUL ENERGETICII (UCIPE)

MOLDOVA ENERGY PROJECT IMPLEMENTATION UNIT (MEPIU)

str. Alecu Russo 1, bloc A1, of. 163, MD-2068, Chișinău
tel. +373-22-49-67-90, fax +373-22-49-67-90
E-mail: mepiu@mepiu.md, Pagina web: www.mepiu.md

1, Alecu Russo str., block A1, of. 163, Chisinău, MD-2068
tel. +373-22-49-67-90, fax +373-22-49-67-90
E-mail: mepiu@mepiu.md, Web page: www.mepiu.md

No. 11/2-568 of November 15, 2023

Attn: **KEC International Ltd., Association Siemens Energy SRL, Electromontaj S.A. & Energotech S.A., Power Grid Corporation of India**

Copy: **S.E. Moldelectrica**

Project: **Moldova Power System Development Project (PSDP)** - *Contract no. 6380 – A1, Contract no. 6380 – A2 and Contract no. 6380-A7.*

Subject: **Public Consultation for Site Specific ESIA/ESMPs for construction of 400 kV OHTL and for upgrade of 330 kV Chisinau Substation**

Hereby, we refer to the implementation of the Power System Development Project in the Republic of Moldova.

Thus, MEPIU has disclosed ESIA & ESMPs specific for construction of the 400 kV OHTL and for upgrading of the 330 kV Chisinau Substation on MEPIU and the Beneficiary (S.E. Moldelectrica) web sites in order to be consulted by the project's stakeholders and other interested parties and receiving feed-back from stakeholders for documents improvement.

The disclosed environmental and social documents can be download at the following link: https://www.mepiu.md/rom/proiecte-curente/proiectul-de-dezvoltare-a-sistemului-electroenergetic-pdse

Sincerely,

Director **Ruslan SURUGIU**

Ex. Burlacu Anatol
E-mail: anatol.burlacu@mepiu.md

6.2 Public consultations pictures by locality

CAHUL DISTRICT


LEOVA DISTRICT

BACIOI MAYORALTY

IALOVENI DISTRICT

HANCESTI DISTRICT

CIMISLIA DISTRICT

COMRAT CITY ATU GAGAUZIA

TARACLIA DISTRICT


Район Тараклия
Център
на българите
в Молдова

6.3 The list of attendances by locality

LISTA PARTICIPANȚILOR LA CONSULTĂRILE PUBLICE

Proiect: PROIECTUL DE DEZVOLTARE A SISTEMULUI ELECTROENERGETIC DIN REPUBLICA MOLDOVA

Componenta A1 A2: Proiectarea LEA 400 kV Vulcănești – Chișinau și a SE Chișinău

Locație: Primăria Comunei Băcioi

Data: 23 noiembrie 2023

Ora: 10:00

Temei: Evaluarea riscurilor de mediu și sociale la etapa de proiectare tehnică a LEA 400 kV și a SE Chișinău

Temă: Divulgarea și prezentarea informației de mediu și socială părților interesate și menținerea unui proces continuu de comunicare cu părțile interesate prin utilizarea mecanismului de redresare a reclamațiilor (MRR)

N. d/o	Nume și prenume	Funcția	Denumirea autorității/ Instituției publice	Date de contact (număr de telefon)	Semnătura
1.	Burlacu Anatolie	Responsabil Mediu/SSM	UCIPE	068388796	
2.	Rotaru Oleg	sp. I-cal	UCIPE	07962392	
3.	Jenghina Elena	sp comunicare	UCIPE	68828460	
4.	Moldovan Roman	Logistic/ AutoCad Eng	KEC	0603947382	
5.	NIRMALENDU HUI	Sr. officer	KEC	062186628	Nirmalendu Hui
6.	Țonu Maria	Jurist	Primăria com. Băcioi	06963279	

N. d/o	Nume și prenume	Funcția	Denumirea autorității/ Instituției publice	Date de contact (număr de telefon)	Semnătura
7.	Tulba Ana	Specialist	Primărie com. Băcioi	068257842	[signature]
8.	Breahna Aliona	specialist principal	Primărie com. Băcioi	068765661	[signature]
9.	Borș Elena	specialist	Primăria com. Băcioi	060262407	[signature]
10.	Bivol Lilia	specialist	Primăria com. Băcioi	069295385	[signature]
11.	Drosu Mihai	specialist	Primăria com. Băcioi	079526006	[signature]
12.	Galupa A-drei	Expert mediu și social KEC Int.	KEC International	068203919	[signature]

N. d/o	Nume și prenume	Funcția	Denumirea autorității/ Instituției publice	Date de contact (număr de telefon)	Semnătura
13.	Stanila [illegible]	Specialist [illegible]	Primăria Băcioi	069712312	[signature]
14.	Iacub Iulia	special.	Prim. Băcioi	068115207	[signature]
15.	Babaliei Natalia	Specialist	Primăria Băcioi	060063326	[signature]
16.	Chiochiu Natalia	Specialist	Primăria com. Băcioi	068150394	[signature]
17.	Udagan Eugen	Arh.	Primăria com. Băcioi	069812702	[signature]
18.					

LISTA PARTICIPANȚILOR LA CONSULTĂRILE PUBLICE

Proiect: PROIECTUL DE DEZVOLTARE A SISTEMULUI ELECTROENERGETIC DIN REPUBLICA MOLDOVA

Componenta A1 A2: Proiectarea LEA 400 kV Vulcănești – Chișinau și a SE Chișinău

Locație: Consiliul Raional ialoveni

Data: 23 noiembrie 2023

Ora: 13:00

Temei: Evaluarea riscurilor de mediu și sociale la etapa de proiectare tehnică a LEA 400 kV și a SE Chișinău

Temă: Divulgarea și prezentarea informației de mediu și socială părților interesate și menținerea unui proces continuu de comunicare cu părțile interesate prin utilizarea mecanismului de redresare a reclamațiilor (MRR)

N. d/o	Nume și prenume	Funcția	Denumirea autorității/ Instituției publice	Date de contact (număr de telefon)	Semnătura
1.	Burlacu Anatolie	Specialist Mediu/SSM	UCIPE	068-388-796	[signature]
2.	Rotaru Ala	Sp. social	UCIPE	079623152	[signature]
3.	Elena Iunghiu	Sp. comunic.	UCIPE	069828460	[signature]
4.	Samatioz Emilia	inginer funciar	Hansca	068755093	[signature]
5.	Borta Fiodor	Inginer cadastral	s. Costești	06803037	[signature]
6.	GALUPA ALEXANDRU	SPECIALIST PE MEDIU ȘI SOCIAL	KEC INTERNATIONAL	068203919	[signature]

N. d/o	Nume și prenume	Funcția	Denumirea autorității/ Instituției publice	Date de contact (număr de telefon)	Semnătura
7.	Molodtov Roman	Logist	KEC	060347382	[illegible]
8.	NIRMALENDU HUI	Sr. officer	KEC	062186628	Nirmalendu Hui
9.	STICI MARCEL	ARHITECT-ȘEF R-NUL IALOVENI	C.R. IALOVENI	068070422	[illegible]
10.	Uzoro Emilia	șef adjunct OT Chișinău	Cancelaria de Stat	068330762	[illegible]
11.	Vasile Ana	Adm. G.T. Sula Ana Andrei	G.T. „Sula Ana Andrei”	060282344	Vasile
12.	Moceanu Raisa	ing. cadastru Zîmbreni	pr. Zîmbreni	069095904	[illegible]

N. d/o	Nume și prenume	Funcția	Denumirea autorității/ Instituției publice	Date de contact (număr de telefon)	Semnătura
13.	GȚ „Bivol Rodica Luca” Bivol Constantin	administrator		069225100	[illegible]
14.					
15.					
16.					
17.					
18.					

LISTA PARTICIPANȚILOR LA CONSULTĂRILE PUBLICE

Proiect: PROIECTUL DE DEZVOLTARE A SISTEMULUI ELECTROENERGETIC DIN REPUBLICA MOLDOVA

Componenta A1 & A2: Proiectarea LEA 400 kV Vulcănești – Chișinau și a SE Chișinău

Locație: Consiliul Raional Cimislia

Data: 24 noiembrie 2023

Ora: 10:00

Temei: Evaluarea riscurilor de mediu și sociale la etapa de proiectare tehnică a LEA 400 kV și a SE Chișinău

Temă: Divulgarea și prezentarea informației de mediu și socială părților interesate și menținerea unui proces continuu de comunicare cu părțile interesate prin utilizarea mecanismului de redresare a reclamațiilor (MRR)

N. d/o	Nume și prenume	Funcția	Denumirea autorității/ Instituției publice	Date de contact (număr de telefon)	Semnătura
1.	Burlacu Anatolie	Specialist Mediu/ SSM	UCIPE	068388796	
2.	NIRONALENDU HUI	Sr-Hica	KEC	062786628	Nironalendu Hui
3.	GALUPA ALEXANDRU	SPECIALIST MEDIU SI SOCIAL	KEC	068209319	
4.	Moldtov Roman	Logist/ AutoCaval Eng.	KEC	0603447382	
5.	Comerzan Igor	specialist principal APDT con. Cimișlia	consiliul raional Cimișlia	079425204	
6.	Mușteață Victor	Spe. în dom. fiscale.	Primăria s. Topala	07455290	

N. d/o	Nume și prenume	Funcția	Denumirea autorității/ Instituției publice	Date de contact (număr de telefon)	Semnătura
7.	Berejan Florin	Specialist SAUC, CR Cimislie	CR Cimișlia	067150864 069250864	[signature]
8.	Luposcu Vasile	Arhitect șef.	CR. Cimișlia	067109741 067488815	[signature]
9.	Rotaru Olga	Sp. social	UCIPE	079623191	[signature]
10.	Vladicescu Veronica	Consultant de mediu	Chișinău	069239520	V. Vl[illegible]
11.					
12.					

LISTA PARTICIPANȚILOR LA CONSULTĂRILE PUBLICE

Proiect: PROIECTUL DE DEZVOLTARE A SISTEMULUI ELECTROENERGETIC DIN REPUBLICA MOLDOVA

Componenta A1 & A2: Proiectarea LEA 400 kV Vulcănești – Chișinau și a SE Chișinău

Locație: Consiliul Raional Hincesti

Data: 24 noiembrie 2023

Ora: 13:00

Temei: Evaluarea riscurilor de mediu și sociale la etapa de proiectare tehnică a LEA 400 kV și a SE Chișinău

Temă: Divulgarea și prezentarea informației de mediu și socială părților interesate și menținerea unui proces continuu de comunicare cu părțile interesate prin utilizarea mecanismului de redresare a reclamațiilor (MRR)

N. d/o	Nume și prenume	Funcția	Denumirea autorității/ Instituției publice	Date de contact (număr de telefon)	Semnătura
1.	Elena Serghina	sp. comunicare	UCIPE	065898460	[signature]
2.	Rotaru Ala	sp. social	UCIPE	069623192	[signature]
3.	Vladicescu Vaceslav	consultant de mediu	Chișinău	069239520	V. Vla
4.	GALUPA ALEXANDRU	SPECIALIST MEDIU ȘI SOCIAL	KEC	068209319	[signature]
5.	Bogos Alina	Secretar CL Budeni	s. Budeni	068029140	Bogos
6.	NIRMALENKO HUS	Sr. officer	KEC	062886628	Nirmalenko H.

N. d/o	Nume și prenume	Funcția	Denumirea autorității/ Instituției publice	Date de contact (număr de telefon)	Semnătura
7.	Roșcovin Victor	Șef Serviciu relații funciare și cadastru	Consiliul raional Hîncești	068101213	[signature]
8.	Vasile Secu	Vicepreședintele raionului Hîncești	Consiliul raional Hîncești	067770000	[signature]
9.	Burlacu Anatolie	Specialist de mediu	UCIPE	068388796	[signature]
10.					
11.					
12.					

LISTA PARTICIPANȚILOR LA CONSULTĂRILE PUBLICE

Proiect: PROIECTUL DE DEZVOLTARE A SISTEMULUI ELECTROENERGETIC DIN REPUBLICA MOLDOVA

Componenta A1 & A2: Proiectarea LEA 400 kV Vulcănești – Chișinau și a SE Chișinău

Locație: Primaria mun. Comrat

Data: 29 noiembrie 2023

Ora: 10:00

Temei: Evaluarea riscurilor de mediu și sociale la etapa de proiectare tehnică a LEA 400 kV și a SE Chișinău

Temă: Divulgarea și prezentarea informației de mediu și socială părților interesate și menținerea unui proces continuu de comunicare cu părțile interesate prin utilizarea mecanismului de redresare a reclamațiilor (MRR)

N. d/o	Nume și prenume	Funcția	Denumirea autorității/ Instituției publice	Date de contact (număr de telefon)	Semnătura
1.	Burlacu Anatol	spec. mediu	UCTPE		
2.	Rotaru Ala	spec. social	UCIPE	079623192	
3.	Jurgutica Elena	spec. comunicare	UCTPE	069828460	
4.	GALUPA ALEXANDRU	SPECIALIST mediu și social	KEC INTERNATIONAL	068203913	
5.	NIRMALENDU HUI	Sr. officer	KEC	062/86628	Nirmalendu Hui
6.	Moldovan Roman	Logist/ Autoload Eng	KEC	060347382	

N. d/o	Nume și prenume	Funcția	Denumirea autorității/ Instituției publice	Date de contact (număr de telefon)	Semnătura
7.	Стойкова Ольга	секретарь ком. совета	Примэрия ком. Светлый	0672051116	
8.	Фурса Ел-на	специалист по земельному работу	Примэрия г. Светлый	067205417	
9.	Марченко Иван	Примар	к Светлый	060018813	
10.	Узун Андрей	Землемер бонитар	с. Конгаз	063546568	
11.	Келеш Иван	зам примара	с. Конгаз	063289445	
12.	Тукан Евгений	примар	с Конгазчик	078864648	

N. d/o	Nume și prenume	Funcția	Denumirea autorității/ Instituției publice	Date de contact (număr de telefon)	Semnătura
13.	Койнан Пётр	гл. архитектор Комратского р-на	Администрация Комратского р-на	078100283	
14.	Гансаюгу В.	примэрие Дезгинжа	Примэрия Дезгинжа	069218047	
15.					
16.					
17.					
18.					

LISTA PARTICIPANȚILOR LA CONSULTĂRILE PUBLICE

Proiect: PROIECTUL DE DEZVOLTARE A SISTEMULUI ELECTROENERGETIC DIN REPUBLICA MOLDOVA

Componenta A1 & A2: Proiectarea LEA 400 kV Vulcănești – Chișinau și a SE Chișinău

Locație: Consiliul Raional Leova

Data: 28 noiembrie 2023

Ora: 13:00

Temei: Evaluarea riscurilor de mediu și sociale la etapa de proiectare tehnică a LEA 400 kV și a SE Chișinău

Temă: Divulgarea și prezentarea informației de mediu și socială părților interesate și menținerea unui proces continuu de comunicare cu părțile interesate prin utilizarea mecanismului de redresare a reclamațiilor (MRR)

N. d/o	Nume și prenume	Funcția	Denumirea autorității/ Instituției publice	Date de contact (număr de telefon)	Semnătura
1.	Burlacu Anatolie	specialist electr/ssn	UCIPE	068383796	[signature]
2.	Vladicescu Veaceslav	Consultant de mediu		069239520	[signature]
3.	Rotaru Alo	Specialist social	UCIPE	079623192	[signature]
4.	Junghietu Elena	Spec. comunicare	UCIPE		
5.	ALEXANDRU GALUPA	SPECIALIST PE MEDIU ȘI SOCIAL	KEC INTERNATIONAL	068203919	[signature]
6.	NIRMALENDU HUI	S92. officer	KEC	062186628	Nirmalendu Hui

N. d/o	Nume și prenume	Funcția	Denumirea autorității/ Instituției publice	Date de contact (număr de telefon)	Semnătura
7.	Moldovan Roman	Logist	KEC	060847382	
8.	Savițki Elena Cojocaru Vasile	Primar	Primăria Borogani	0687 23190	
9.	Cojocaru Vasile	proprietar de pământ	Borogani	06101 3330	
10.	Budnaziuc Sofia	perceptor Fiscal	Primăria Borogani	0683 50258	
11.	Arabadji Veronica	Inginer Cadastral	Primăria Borogani	060529647	Arabadji.
12.	Bodorcaun Mihail	șef adjunct DEDTAI	CR Leova	06748025	Bodorcaun

N. d/o	Nume și prenume	Funcția	Denumirea autorității/ Instituției publice	Date de contact (număr de telefon)	Semnătura
13.	Canațui Nadejda	șef direcție	DEDTAI CR Leova	0263 22190	
14.	Mocanu Ion	sp. superi. DAAFM.	CR. Leova	0263 2-27-60 079634568	
15.	Rusulschi Samuel	Arhitect - șef consiliul raional Leova	Consiliu Raional Leova	078829758	
16.					
17.					
18.					

LISTA PARTICIPANȚILOR LA CONSULTĂRILE PUBLICE

Proiect: PROIECTUL DE DEZVOLTARE A SISTEMULUI ELECTROENERGETIC DIN REPUBLICA MOLDOVA

Componenta A1 & A2: Proiectarea LEA 400 kV Vulcănești – Chișinau și a SE Chișinău

Locație: Consiliul Raional Cahul

Data: 28 noiembrie 2023

Ora: 10:00

Temei: Evaluarea riscurilor de mediu și sociale la etapa de proiectare tehnică a LEA 400 kV și a SE Chișinău

Temă: Divulgarea și prezentarea informației de mediu și socială părților interesate și menținerea unui proces continuu de comunicare cu părțile interesate prin utilizarea mecanismului de redresare a reclamațiilor (MRR)

N. d/o	Nume și prenume	Funcția	Denumirea autorității/ Instituției publice	Date de contact (număr de telefon)	Semnătura
1.	Burlacu Anatol	Sp. mediu	UCIPE		
2.	Rotaru Alg	Sp. social	UCIPE	079623192	[signature]
3.	Junghina Elena	Sp. comun	UCIPE		
4.	Molodkov Roman	Logist	KEC	0603407382	[signature]
5.	Nirmalendu Hir	Sr. officer	KEC	062186628	Nirmalendu Hir
6.	Nedov Ruslan	Vicepreșed. CR Cahul	Consiliul Raional Cahul	079546948	[signature]

N. d/o	Nume și prenume	Funcția	Denumirea autorității/ Instituției publice	Date de contact (număr de telefon)	Semnătura
7.	Vladislav Vercehu	Consultant de mediu	MSPP Consultant extern	069239520	V.Ve
8.	Bozaroă Nicolae	Serviciul cadastru	Consiliul Raional	079488284	[signature]
9.	Iarba Aeon Efrosina	Arhitect şef R. Cahul	R. CAHUL	079544575	[signature]
10.	GALUPA ALEXANDRU	SPECIALIST PE MEDIU ŞI SOCIAL	KEC INTERNATIONAL	068208813	[signature]

LISTA PARTICIPANȚILOR LA CONSULTĂRILE PUBLICE

Proiect: PROIECTUL DE DEZVOLTARE A SISTEMULUI ELECTROENERGETIC DIN REPUBLICA MOLDOVA

Componenta A1 & A2: Proiectarea LEA 400 kV Vulcănești – Chișinau și a SE Chișinău

Locație: Consiliul Raional Taraclia

Data: 29 noiembrie 2023

Ora: 13:00

Temei: Evaluarea riscurilor de mediu și sociale la etapa de proiectare tehnică a LEA 400 kV și a SE Chișinău

Temă: Divulgarea și prezentarea informației de mediu și socială părților interesate și menținerea unui proces continuu de comunicare cu părțile interesate prin utilizarea mecanismului de redresare a reclamațiilor (MRR)

N. d/o	Nume și prenume	Funcția	Denumirea autorității/ Instituției publice	Date de contact (număr de telefon)	Semnătura
1.	Burlocea Anatol.	Specialist Mediu/SSM	UCIPE	068388796	[signature]
2.	Rotaru Ala	spec. social	UCIPE	079623192	[signature]
3.	Junghina Elena	spec. comun.	UCIPE	069828460	[signature]
4.	Vădicescu Veaceslav	expert		069239522	[signature]
5.	Помигерский Александр	гл. специалист	Отдел с/х и земельных отношений	078214078	[signature]
6.	Gurcan Tatiana	primar	primăria comuna Vinogradovca	068081316	[signature]
7.	[illegible]	Примар	Примария [illegible]	069570468	[signature]
8.	Alexandru [illegible]	Șef Secției de Construcții	Consiliul Raional	069747280	[signature]
9.	Covaci Albina	perceptor fiscal	Primăria Albota de Jos	078054093	[signature]
10.	GALUPA ALEXANDRU	SPECIALIST PE MEDIU SOCIAL	KEC INTERNATIONAL	068208319	[signature]
11.	NIRMALENDU HUI	Sr. Officer	KEC	062186628	Nirmalendu Hui
12.	[illegible] Roman	Logist	KEC	060347382	[signature]

6.4 The list of media sources of localities that reflected the public consultations

- https://raioncomrat.md/29-11-2023g-proshli-publichnye-slushaniya/
- https://bacioi.md/2023/11/17/__trashed-2/
- https://cahul.md/anunt-consultari-publice-privind-implementarea-proiectului-de-dezvoltare-al-sistemului-electroenergetic-din-republica-moldova-pentru-constructia-liniei-electrice-aeriene-lea-400-kv-vulcanesti-chisi/
- https://il.md/2023/11/15/consultare-publica/
- https://raioncimislia.md/2023/11/13/consultari-publice-2/
- https://hincesti.md/category/informatii-publice/anunturi/
- https://raiontaraclia.md/obyavleniya/
- Proiectul de Dezvoltare a Sistemului Electroenergetic (PDSE) (mepiu.md)
- https://www.moldelectrica.md/ro/finances/competitive_energy_market