MINISTERUL AGRICULTURII
ȘI INDUSTRIEI ALIMENTARE
AL REPUBLICII MOLDOVA

Ministry of Agriculture and Food Industry of Republic of Moldova

Agriculture, Governance, Growth and Resilience Investment Project (P170035)

ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK (ESMF)

Final Draft Version

Developed by:

UCIMPA Unitatea Consolidată pentru Implementarea și Monitorizarea Proiectelor în domeniul Agriculturii

Consolidated Agricultural Projects Management Unit (CAPMU)

February 2023

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Acronyms

ACSA	National Agency for Rural Development (Ro = Agenţia Naţională de Dezvoltare Rurală)
AGGRIP	Agriculture Governance, Growth and Resilience Investment Project
AIPA	MAFI's Agency for Interventions and Payments in Agriculture
CAC	Center for Agricultural Consultancy
CAPMU	Consolidated Agricultural Projects' Management Unit
CIS	Centralized Irrigation System
EA	Environmental Assessment
EG	Environmental Guidelines
EIA	Environmental Impact Assessment
ELV	Emission Limit Values
ES(I)A	Environmental and Social (Impact) Assessment
ESF	Environmental and Social Framework
EHSGs	Environmental, Health and Safety Guidelines
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESMS	Environmental and Social Management System
ESS	Environmental and Social Standard(s)
EU	European Union
FI	Financial Intermediary
GBV	Gender Based Violence
GEF	Global Environmental Facility
GoM	Government of Moldova
GM	Grievance Mechanism
FSA	Food Safety Agency
IDA	International Development Association
IEP	Inspection for Environmental Protection
IFC	International Finance Corporation
IPM	Integrated Pest Management
LMP	Labor Management Procedures
MAC	Maximum Allowable Concentrations
MAFI	Ministry of Agriculture and Food Industry
MoEn	Ministry of Environment
NGO	Non-governmental Organization(s)
OP	Operational Policy
PIU	Project Implementation Unit
PMP	Pest Management Plan
SDA	Sustainable Development Account Moldova
SEE	State Ecological Expertise
SEIA	Statement on the Environmental Impact Assessment
TA	Technical Assistance
WB	World Bank
WUA	Water Users Associations (for irrigation purposes)

Executive Summary

In order, to examine the potential environmental and social risks and potential impacts of the Agriculture, Governance, Growth and Resilience Investment Project (AGGRIP), an Environmental and Social Management Framework (ESMF) has been developed. The ESMF summarizes the expected environmental and social risks and impacts associated with the Project and identify measures to mitigate adverse impacts throughout the project life cycle. The document outlines the World Bank's Environmental and Social Standards (ESSs) and legislation of the Republic of Moldova, determines institutional arrangements and capacity to comply with the Bank's Environmental and Social Framework (ESF), identifies stakeholders and engagement methods, describes grievance redress and feedback mechanisms, and addresses requirements for monitoring and reporting on the Project's environmental and social performance. As the technical evaluation (e.g., feasibility studies, detailed designs) and specific intervention locations under the project are not identified and/or ready and their specific impacts are not known at the project preparation stage, a framework approach is adopted.

In the line with the above mentioned, the ESMF is developed based on the *Environmental and Social Commitment Plan (ESCP)* agreed between the World Bank and Government of Republic of Moldova and is to be implemented corresponding to every Project's activity fulfilling the provisions of the developed *Resettlement Policy Framework (RPF) developed according to ESS5, Stakeholder Engagement Plan (SEP)* developed according to ESS 10, which also describes a project-level *Grievance Mechanism (GM)* designed to facilitate receipt and response to feedback and concerns associated with the project. The ESMF is also to be implemented in conjunction with the project *Labor Management Procedures (LMPs),* developed according to the requirements of ESS2. The RPF, SEP and LMPs are parts of this ESMF and will be applied to properly mitigate the environmental and social impacts of the Project activities to be financed.

Project Location. The AGGRIP includes five components. The *Component 1 of the Project - Enhancing Sector Governance and Agriculture Knowledge Management* will provide goods and services for the improvement the operation and management of the governmental/state institutions from the agricultural, food safety and veterinary sectors. The location of these activities most likely it will be Chisinau.

The Component 2 - Fostering Value Chain Development for Growth will focus on enabling dairy and livestock producers and crops farms to increase productivity, improve adherence to production standards, and enhance market-ready quality. Thus, the *Component 2* activities will be implemented at the beneficiary's location (i.e., commercial dairy farms) which are located throughout the Republic of Moldova.

The planned activities under *Component 3 - Strengthening Resilience through Irrigation Services,* including the rehabilitation of the existing Centralized Irrigation Systems (CISs) and construction of the new infrastructure to ensure the connection between the CISs, will be carried out in the selected areas managed and use by Water Users Associations (WUAs) in the localities Tudora, Caplani and Crocmaz from Stefan Voda district - south-east of Moldova; Tetcani and Corjeuți vilages from Briceni district - north-west of Moldova, Etulia and Alexandru Ioan Cuza villages from TAU Gagauzia and Cahul district - in the southern part of the Republic of Moldova.

The activities to be financed under *Component 4 - Contingent Emergency Response Component* will be determined if the decisions to reallocate the financing for some emergency will be taken.

The *Component 5 – Project Management* will cover the activities related to proper and good implementation of the Project activities.

Project Potential Environmental and Social Risks and Impacts. The summary of the associated risks and impacts for the AGGRIP's components 1,2 and 3 are the following:

Component 1 of the Project - Enhancing Sector Governance and Agriculture Knowledge Management: (i) Health and safety caused by COVID - 19; (ii) Lack of information and improper communication between the implementation entities, services providers, and beneficiaries.

Component 2 - Fostering Value Chain Development for Growth: The activities planned under Component 2, specifically the establishment of new or the modernization of existing commercial dairy farms, can generate moderate environmental and social impacts during the construction and operation stages, such as soil, water and air pollution; health and safety risks for workers involved in the construction works, traffic disruptions due to movement of construction materials, dust, noise and vibration, labor safety of the farms employees, etc. The planned activities will not generate impacts on biodiversity or physical cultural resources as it will not support subprojects located in protected areas, critical and non-critical habitats or culturally or socially sensitive areas. *No land taking is required under this component*. Some *community health and safety risks* may be present due to the possible interaction with nearby communities during transport of equipment and machinery or during localized construction activities. Activities associated with *small-construction works are unlikely to generate disproportionate impacts on vulnerable groups and are generally easily manageable through screening and site management plans. The potential labor risks are specifically to small-scale construction works,* mitigable through the compliance of the developed Project's LMPs, LMP developed by every Contractor to be involved in the Project and of the ESMP. After screening of every proposed sub-project (at the selection of the beneficiaries under Component 2), the implementation entities will ensure that activities involving significant risks to labor rights, health and safety of employees, and child or forced labor will to be excluded from Project financing. New starters, small/family farms or female headed farms may need additional support to apply for financing under the Project. Social screening checklist will be used to ensure that the discriminations and unjustified exclusions are avoided.

Component 3 - Strengthening Resilience through Irrigation Services: The activities planned under Component 3, specifically rehabilitation of the existing irrigation infrastructure, construction of the new water and adduction pipelines, water storage reservoirs, pumping and repumping stations, can generate the potential risks during the design, construction and operation stages. *The construction of new infrastructure can require the additional lands.* Thus, the resettlement can affect the landowners from the area of Component 3. *The risks and impacts during the construction stage are specifical for small-scale construction work, site-specific and mitigable,* such as noise and vibration, dust, waste generation, water, soil and air pollution, asbestos dust pollution, pollutant emission, soil fertility degradation, erosion, salinization. Due to small construction and rehabilitation works there will be a small number of workers on site for short periods of time. Thus, there is *no substantial labor influx during the construction period*. *The potential labor risks are specifically to small-scale construction works, mitigable through the compliance of the developed Project's LMPs, LMP developed by every Contractor to be involved in the Project and of the ESMP.* Some *community health and safety* risks may be present due to the possible interaction with nearby communities during transport of equipment and machinery

or during localized construction activities. Activities associated with *small-construction works are unlikely to generate disproportionate impacts on vulnerable groups. Sexual Exploitation, Abuse and Harassment are estimated to be low and mitigable* by complying with the Code of Conduct by all Project's workers and operation of a grievance mechanisms respecting confidential grievances.

Proposed Mitigation Measures: Where subprojects are likely to have minimal or no adverse environmental or social risks and impacts (i.e., technical assistance on drafting legislation, digitalization, procurement of office equipment, capacity building assistance, etc.), such subprojects do not require further environmental and social assessment following the initial screening.

For the implementation of the Component 1 avoiding the potentially risks the proper implementation of the SEP and LMPs is recommended.

Considering the planned activities under Component 2, the proposed measures for properly risks and impacts identification, minimizing risks, avoiding impacts or mitigating them are the following:

Pre-construction/Design stage: SEP implementation, including the extended awareness campaign to ensure that all relevant information are provided to more types of farms and potentially beneficiaries; The application package will include an Environmental and Social Screening Checklist (ESSC) that will also include the actual condition of health and safety of animals and proposed measures for construction and operation stages; transparent and adequate environmental and social screening of the sub-projects that will benefit from project financing, using the screening checklists attached to the ESMF; to include the ESMF requirements in the design and construction contracts of selected subprojects, both into specifications and bill of quantities; the development of the site-specific ESIA/ESMP for every sub-project based on screening provided; the ESMP for construction works to be developed by Contractor that can include the Contractor LMP, community health and safety management plan and traffic management plan.

Construction stage: SEP (including GRM), LMPs, ESMP, Contractor ESMP implementation and monitoring.

Operation stage: According to the requirements of the national legislation on necessary permits and authorizations.

Considering the planned activities under Component 3, the proposed measures for properly risks and impacts identification, minimizing risks, avoiding impacts or mitigating them are the following:

Pre-construction/Design stage: SEP implementation, including the extended awareness campaign to ensure that all relevant information are provided to more types of farms and potentially beneficiaries; design development avoiding as much as possible the using of the private agricultural lands; environmental and social screening of the planned works based on developed design, using the screening checklists attached to the ESMF and to RPF; based on the screening provided and preliminary assessment of the activity will be established the necessity to develop and Environmental and Social Impacts Assessment (ESIA) for every Centralized Irrigation System CIS) to be rehabilitated and extended; the development of the site-specific Environmental and Social Impacts Management Plans (ESMP) and of the Resettlement Action Plan (RAP) for every sub-project based on ESIA; including of the ESMF, ESIA and ESMP requirements in the design, construction and supervision contracts, both into specifications and bill of quantities; the ESMP

for construction works to be developed by Contractor that can include the Contractor LMP, community health and safety management plan and traffic management plan.

Construction stage: RAPs, SEP (including GRM), LMPs, ESMP, Contractor ESMP implementation and monitoring.

Operation stage: According to the requirements of the national legislation on necessary permits and authorizations. Application of the best practices in the irrigation, pest management.

Stakeholders Engagement. Based on ESS 10 requirements, a *SEP* has been developed is attached to this ESMF. The SEP describes the timing and methods of engagement with stakeholders throughout the life cycle of the AGGRIP, distinguishing between project-affected parties and other interested parties. The SEP also describes the range and timing of information to be communicated to project-affected parties and other interested parties, as well as the type of information to be sought from them.

The results of the stakeholder engagement activities, including Grievance Redress Mechanism (GRM) will be reported semi-annually to WB and posted on CAPMU's website.

Labour Management Procedures. The LMPs according to ESS2 requirements was developed and is attached to this ESMF. Based on available information, the Project is expected to involve a limited number of direct and contracted workers. The exact numbers and source of the workforce will be confirmed during Project due diligence activities.

In the direct workers category are included the implementation entities: CAPMU, AIPA and SDA.

Contracted workers would be hired under the design, supply, installation and technical supervision contracts. The subcontractors' workforce will be also considered as contracted workers.

The type of work to be carried out by the direct workers does not entail high vulnerability to abuse of labor rights or OHS risks. It is assessed that the key labor risks for the contracted workers would be associated with health and safety risks related to the small-scale construction activities for both components 2 and 3. No other labor risks are considered to be significant. The Project is assessed as low on gender-based violence (GBV) risk.

The Labor Code of the Republic of Moldova on wages and deduction, working hours, rest breaks, labor disputes and other provisions will be applied in relation to all project workers. Additionally, the Project will provide an effective grievance mechanism for workers to raise workplace problems and concerns.

According to national legislation, the obligations of the employer are to provide a healthy work environment; the obligation to assign an individual who will be responsible for the OHS arrangements at work and on site and must provide workers with good hygiene standards, with fresh drinking water, restrooms and showers, clean bedrooms (if necessary), separate cooking and eating areas.

CAPMU's assigned staff will monitor the performance of Contractor(s) in relation to the contracted workers.

Grievance Redress Mechanism. A *Grievance Redress Mechanism* (GRM) for communities will be implemented. It will be a two-level grievance management structure to address the public and PAPs concerns and complaints under the Project implementation:

Level I (*local level)* – At this level the grievances will be addressed by WUAs and LPAs;
Level II (*Project level)* – CAPMU, with support of other implementation entities will examine and solve the grievances according to national legal requirements and WB's ESS provisions.

Implementation Arrangements. The Project implementation entities are the Ministry of Agriculture and Food industry of Republic of Moldova (MAFI), and the Consolidated Agricultural Projects' Management Unit (CAPMU), directly responsible to MAFI, which will carry out a range of fiduciary, coordination and supporting functions to ensure efficient project implementation in relation to the MAFI's obligations on social and environmental safeguards, procurement, financial management and other country-specific requirements such as monitoring and evaluation. The MAFI's Agency for Payment and Interventions in Agriculture (AIPA) would play a key role in the project's set-up for the implementation of the matching investment grant schemes. The Sustainable Development Account Moldova (SDA) would provide a key technical coordination role in the implementation of Component 3, to ensure swift and efficient implementation of the activities related to irrigation, including involvement in the ESIA preparation, ESMPs implementation and monitoring of the impacts mitigation.

The implementation of the E&S provisions of AGGRIP ESMF will be covered by planned budget for the project Component 5.

ESMF disclosure and public consultations. On …. the ESMF document have been disclosed for public consultation on implementation entities websites. All interested parties have been invited to submit their comments and questions to CAPMU by ….. The Public Consultation Report and the Summary of the received comments and provided answers are attached to the SEP document. As overall conclusion, there are no received any substantial observations or suggestions on proposed project interventions.

1. Project Description and Activities Location

1.1. Project Development Objective

The Development Objective of the AGGRIP is to support inclusive development, market orientation and climate resilience of Moldova's agriculture sector.

The proposed components and activities of the AGGRIP are the following (see *Table 1*):

Table 1: Project components and sub-components

Component 1 – Enhancing Sector Governance and Agriculture Knowledge Management	
Sub-component 1.1: Enhancing functionality of the payment agency	
In Moldova, public support to farmers is managed by a stand-alone payment agency – the Agency for Payment and Interventions in Agriculture (AIPA) – which was created in 2010. The sub-component will focus on providing financial support for the procurement of a wide range of services and goods, with the objective of enhancing AIPA's prospects for compliance with strict EU fiduciary requirements and an eventual accreditation as a payment agency for pre-accession funding. The project will support solutions to current staffing weaknesses by providing technical assistance on the drafting of necessary legislation and regulations for an institutional reform that would allow for greater financial autonomy and ability to attract and retain qualified staff. The digitalization deep dive at AIPA would commence with a project-supported assessment of business process from a digital optimization perspective, to be followed by the development and implementation of specific e-transformation packages integrated in the broader GoM e-governance agenda. Last but not least, AIPA and its territorial offices will receive support for upgrading technical means necessary to provide an effective working environment, facilitation of digitalization, and transportation means for improved field monitoring.	
Sub-component 1.2: Enhancing food quality and safety systems	
This sub-component would build up on past and on-going Moldova Agriculture Competitiveness Project (MACP) efforts aimed at enhancing human, institutional and technical capacity of the country's food safety management system, as well as ensuring regulatory harmonization with EU requirements. The sub-component would set out to address remaining regulatory and institutional support needs for several essential elements of the on-going dialogue between the Moldova food safety authorities and the EU. This dialogue is particularly salient regarding animal husbandry practices and production of food of animal origin. The EU regulations in these fields demand some of the highest standards in the world and consequently compliance by Moldova to these rigors represents a continuous challenge underlined by a lengthy and complex process with substantial financial efforts.	
Sub-component 1.2.1: Regulatory and institutional support	On the institutional side, the project would support activities aimed at strengthening the capacity of MAFI and the Food Safety Agency (FSA) by providing training to staff involved in food safety policy formulation and management activities. A particularly salient area of the FSA competencies relates to inspections, so the project would support the necessary institutional actions towards ISO17020 accreditation. The Project would also provide support for increasing awareness about and technical understanding of the emerging, EU-aligned food safety, animal health and welfare legislation and regulations among private sector

	entities. The Project would support systemic reviews for specific product lines and elaboration of necessary action plans (including monitoring of residues in milk and meat) for achieving acceptance to the EU markets.
Sub-component 1.2.2: Technical enhancements for food safety management	On the technical side, the project would support investments that are aimed at strengthening the technical functionality of the country's food safety management institutions. The Project would support the institution of state services by providing essential office and connectivity equipment, veterinary kits, and transportation means to operationalize an emerging network. Also, the Project would support the procurement of additionally necessary equipment for expanding the current testing capacity of the Republican Center for Veterinary Medicine and support the accreditation in new methods (determination of groups of substances and active substances). This activity will focus on supporting the finalization of the modules related to the country's phytosanitary registry – probably the most exhaustive and salient registry of data related to agriculture and food industry. In addition, the Project would focus on efforts aimed at verifying and cleaning data in some of the most important data registries hosted and managed by the FSA.
Sub-component 1.3: Enhancing Access to Agricultural Knowledge	
Systems for the generation and effective dissemination of essential advice on agricultural productive, processing and marketing aspects are key pre-requisites for increasing the competitiveness of the Moldovan farmers, as well as an essential prerequisite for efficient and timely absorption of public support (and in the future EU pre-accession funds).	
Sub-component 1.3.1: Agricultural Knowledge Management	The current department in charge of agriculture knowledge management in MAFI is set to undergo a profound transformation. According to existing plans, it will become a separate autonomous entity – the Center for Agricultural Consultancy (CAC) – tasked with carrying out the leadership and management of agriculture knowledge systematization and dissemination. The sub-component will focus on providing support for the establishment and operationalization of the CAC by financing necessary technical assistance and equipment. The implementation of the sub-component would build on an initial comprehensive assessment of the existing agricultural knowledge management gaps and establish specific pathways for institutional and technical enhancements.
Sub-component 1.3.2: Fostering Excellence in Veterinary Services	As a distinct subset of public agricultural knowledge management delivery, the proposed activity would aim to catalyze increased excellence in the formation of veterinarian professionals and delivery of veterinary services. The sub-component would support activities related to the establishment of three centers of veterinary excellence that would serve as outlays for channeling top-tier knowledge and best-practice services to animal farmers, provide an improved didactic and apprenticeship basis for the country's veterinary students, and serve as outlays in continuous education opportunities to practicing veterinarians (including for the cadre of state veterinarians). A reference center of excellence would be established based on the country's only veterinary medicine department in a higher education institution – the Technical University of Moldova. As the centerpiece of the country's veterinary medicine education, the department is best placed (both conceptually and spatially) to host such an entity and create functional mechanisms for delivering on the above-mentioned elements. Two other regional centers of excellence would be established in collaboration with agricultural technical colleges (or if found feasible with local authorities in partnership with private entities) which present a good starting point for developing the functionalities of

	regional veterinary excellence specialized by predominant type of animal husbandry in the respective regions. The sub-component will provide financing for a range of specialized technical assistance, equipment and consumable for the establishment and operationalization of the veterinary centers. The mix of specialized veterinary medicine equipment will strike a balance between teaching/training needs and service delivery needs. To ensure agility of service delivery the sub-component would fund essential portable equipment and transportation means for each excellence center. The complexity of educational and training activities envisaged in the reference excellence center will require more sophisticated equipment for surgery and basic laboratory analysis. The regional excellence centers will be equipped for more routine types of training and services, relying on the reference center for more complex needs.

Component 2 – Fostering Value Chain Development for Growth

Subcomponent 2.1: Matching Investment Support for Fostering Growth

The activities of the sub-component would focus on enabling dairy and livestock producers to increase productivity, improve adherence to production standards, and enhance market-ready quality. Dairy requires higher degrees of commercialization and industrialization of commercial farms, away from the currently dominating household systems. More specifically, financed activities will include:

- Initiatives piloting the establishment of new commercial dairy farms in line with best regional/global practices in herd management, nutrition, climate resilience and green production (a mix of matching grant and hire-purchase or lease-pay arrangement for a portion of the investment).
- Initiatives aiming to modernize existing commercially oriented dairy and meat farms.
- Initiatives aiming to promote effective up-stream integration of farmers into processor-driven value chains.
- Initiatives supporting the emergence and functionality of local cooperation units for joint set up and operation of various productive infrastructure elements – collection, pre-processing, slaughtering, pasture management, and fodder production.
- Initiatives supporting alignment to EU market requirements and access thereof for dairy- and meat-based products (including needed certification).

The activities of the sub-component would also focus on enabling crop farmers to increase productivity, improve adherence to production standards, and enhance market-ready quantity and quality in the vegetables and niche products space. More specifically, financed activities will include:

- Initiatives aiming to modernize existing commercially oriented operations for value addition.
- Initiatives aiming to promote effective up-stream integration of farmers into processor-driven value chains.
- Initiatives supporting the emergence and functionality of local cooperation units for joint set up and operation of various productive infrastructure elements – collection, storage, pre-processing,
- Initiatives supporting alignment to EU market requirements and access thereof for fresh produce and processed products (including needed certification).

Subcomponent 2.2: Capacity Building and Business Development Support

This sub-component would support technical assistance and capacity building activities for participating livestock and crop farmers in formulating business and marketing plans, setting up and further developing productive partnerships, providing consulting and training on value chain integration, etc. The principal delivery mechanism of assistance to producers will be through local business development agents drawing on local and international expertise. Local business development agents will receive specific coaching related to the requirements of the AGGRI Project, as well as EU pre-accession instruments relevant to the implementation of the project. Costs to farmers related to access to business development services would be covered as eligible expenditures against matching investment grants. The sub-component would also support more generic technical assistance activities aimed at increasing awareness about the proposed project's funding opportunities and the broader EU pre-accession agenda, strengthening the capacity of product/farmer associations to represent the interests of member farmers;

play a pro-active role in encouraging technological and climate smart innovation; and support the development of interlinkages between applied research and practicing farmers.	
Component 3 – Strengthening Resilience through Irrigation Services	
Moldova's agriculture sector is highly vulnerable to climate change risks. Expanding the availability of irrigation services to interested farmers is a growing necessity, not only in water intense cultivation of fruits and vegetables, but more frequently, in the cultivation of field and fodder crops. In the past decade, Moldova has had a positive dynamic in the establishment of a legal and regulatory framework for the functioning of Water User Associations for Irrigation (WUAIs), with some 35 WUAI`s now registered, and 27 having taken in operation and management of irrigation infrastructure assets from the State Water Agency. While some of the assets/systems have benefited from recent rehabilitation (funded by the Moldova Millennium Challenge Account (MCA)), many still remain in disrepair and the WUAIs would benefit from public support for rehabilitation to enable greater up-take, more efficient use of water and electricity, and introduction of more productive and profitable cropping patterns.	
Sub-component 3.1: Rehabilitation of Irrigation Infrastructure.	
The sub-component would support the rehabilitation of existing primary and secondary irrigation infrastructure for which technical designs and plans currently exist. There are several command areas under large-scale pumped systems, operated and managed by WUAIs, for which feasibility and technical design work has been carried out in the past few years, as part of the mandate of the Sustainable Development Account Moldova (SDA), under its post-MCA assistance phase. These rehabilitation projects would represent large ticket-items that would require significant financing and planning, for which there could be an economic justification for public funding. The participating WUAIs would be expected to contribute to the public investment through matching investment funds and and/or assets.	
Sub-component 3.1.1: The Rehabilitation of the "Tudora" CIS	The sub-component would finance the range of necessary activities for the rehabilitation of the "Tudora" CIS and its interconnection with the "Caplani" CIS [1]. The "Tudora" CIS is currently non-functional, while the "Caplani" CIS is partially functional through abstraction of water from the nearby Caplani Lake. The two CISs are based in the Nistru River basin in the southeastern part of the country, which represents one of the four distinct agri-climatic regions of Moldova, characterized by a steady and increasingly frequent deficit of precipitation. The two schemes are currently managed by the "Irig-Com" WUAI, for which the transfer of operation and management of the irrigation infrastructure was completed in March of 2020. The WUA exhibits a lot of dynamism and encompasses members that understand the value of irrigation services and are ready to be meaningful contributors to the rehabilitation works. The WUAI has already initiated the development of technical project documentation for a two-phase approach to the rehabilitation of the systems: (i) the rehabilitation of the "Tudora" CIS collection station, construction of an adduction pipeline, and the rehabilitation of the existing water storage reservoir and (ii) the rehabilitation of the transit pumping station and the construction pipeline to the "Caplani" CIS. The first phase is now nearing completion and is ready for implementation. The sub-component will finance the completion of the technical design of the second phase of the rehabilitation project and capital investments required for the functional rehabilitation of irrigation infrastructure in the proposed command area.
Sub-component 3.1.2: The Rehabilitation of the "Tetcani" CIS	The sub-component would finance the range of necessary actions for updating the feasibility and carry out the technical design for the rehabilitation of the "Tetcani" CIS and its interconnection with the "Corjeuti" CIS[2]. It foresees the rehabilitation of the existing infrastructure of the "Tetcani" CIS, including the rehabilitation of two pumping stations for intaking water from the Prut River. This would eliminate dependence on water abstraction from a reservoir on the Vilia River (a Prut River

[1] Tudora and Caplani are communities in the Stefan Voda district in Southeastern Moldova.
[2] Tetcani and Corjeuti are communities in the Briceni district.

	tributary), a shallow and unreliable source of water for irrigation. These upgrades will also create preconditions for the interconnection of the "Corjeuti" CIS which was not foreseen by the initial feasibility study. The two CISs' rehabilitation will bring into the irrigated circuit about 1,900 hectares of fertile land in which field crops, fruits and vegetables dominate the production landscape. The two schemes are currently managed by the "Irigare-Nord" WUAI, for which the transfer of operation and management of the irrigation infrastructure was completed in March of 2020. The sub-component will finance the necessary feasibility updates and technical design works required for the future rehabilitation of the two CISs.
Sub-component 3.1.3: The Rehabilitation of the "Etulia" CIS	The sub-component would finance the range of necessary activities for the feasibility and design of the partial rehabilitation of the "Etulia" CIS[3]. The service area is in the southern-most part of the country, one of the four distinct agri-climatic regions of Moldova, characterized by the hottest and driest climate, and devastating impacts of frequent droughts. The scheme relies on abstracting water from the Cahul Lake (fed by the Danube) and will require the rehabilitation of existing pumping and repumping stations, lining of an existing channel with geomembrane (1.6 kilometers), replacing an existing channel with a pipeline (15.3 kilometers), and the construction of 2 new repumping stations and 2 storage reservoirs. The CIS is operated and managed by the "Altin-Su" WUAI which received a contractual mandate for the management of an irrigated command area of nearly 2,700 hectares in March 2020. At their initiative, the WUAI invested in the preparation of a technical design for the rehabilitation of the CIS. The planned rehabilitation of the CIS will bring into the irrigated circuit approximately 3,500 hectares of fertile land in which field crops and fruit production (the area boasts 1,500 hectares of perennial plantations) dominate the landscape. The sub-component will finance the necessary feasibility work required for the future rehabilitation of two CISs.
Sub-component 3.2: Strengthening the enabling environment.	
The sub-component will provide support for the establishment of a propitious environment for the rehabilitation of targeted CISs; for creating conditions for maximizing up-take of irrigation services by farmers; and for enabling an effective public institutional response. More specifically: - The sub-component will finance costs associated with contract management, technical supervision, and safeguards associated with the rehabilitation of the CISs. - The sub-component will focus on expanding participating WUAI institutional development efforts by providing training for transparent and inclusive governance and efficient management, optimizing operation of the irrigation schemes (including at on-farm level), improving up-stream linkages with agro-meteorological services, disseminating knowledge on risk management practices, etc. In addition, - The sub-component will support on-going GOM efforts to advance institutional and policy reforms in the irrigation services space and strengthen technical capacities in MAFI and the State Water Agency "Apele Moldovei".	
Component 4 – Contingent Emergency Response Component (CERC)	
This is an unfunded contingency component that can be activated in case of an eligible emergency event. Following such an event, the Government of Republic of Moldova may request the WB to reallocate uncommitted project funds to support an emergency response. Eligible emergency and/or crisis is any natural or man-made event that has caused, or is likely to cause imminently, a major adverse economic and/or social impact to the country. The activities financed by the CERC will be demand- and event-driven and will be detailed in a GOM Action Plan of Activities, which together with an official declaration of a specific emergency by the GOM represent the two obligatory conditions for triggering the component. The definition of an eligible emergency and a positive list of activities will be included in	

[3] Etulia is a community in the Gagauzia Atonomous Territorial Unit and the Cahul district.

the project's legal documents, and the mechanics of the decision-making process and implementation of the will be reflected in the CERC Operational Manual, part of the overall POM.	
Supply of Essential Inputs.	The CERC component could support initiatives that would ensure supply and distribution of essential inputs for both agricultural production and processing. Moldova is importing all its fuel from regional suppliers and rising prices and uncertainties related to domestic stocks of diesel fuel may persist long enough to significantly affect all field works in 2022 and beyond. While the situation is dynamic and there are significant levels of uncertainty, the component could provide funding for dedicated supply of diesel fuel to farmers. Fertilizer and seed supply chains have also been disrupted by the conflict, as both Ukraine and Belarus are important suppliers. The component could put in place mechanisms for bulk procurement of the most essential fertilizers and seeds, followed by distribution to eligible farmers and subsequent agronomic advisory support.
Compensatory Support to Producers and Processors	Many producers and processors have lost significant market share due to the war in Ukraine, particularly, for exports of food to Belarus and Russia, and other destinations to the East (at least by rail and road transportation). This affects many agricultural producers, particularly growers of apples, plums, and table grapes, as well as producers of meat and canned goods (two of the main non-wine export items to these markets). Should the situation persist, the impacts of these disruptions could lead to stoppage of operations, loss of jobs, loss of capital, bankruptcies, etc. The component could formulate mechanisms for partial compensation of losses to allow these entities to continue operation while they search for alternatives in routing their products and/or identify alternative coping strategies. The component could also put in place mechanisms that either guarantee and/or subsidize credit to farmers and processors to facilitate access to finance and maintain operations.
Component 5 – Project Management	
This component will finance costs related to project implementation and coordination across various government agencies. MAFI will play the leading role in implementing the proposed project, while relying on its departments, sub-divisions, and subordinated agencies to provide technical support for implementation. Of these, the Consolidated Agricultural Projects' Management Unit (CAPMU), directly responsible to MAFI, will carry out a range of fiduciary, coordination and supporting functions to ensure efficient project implementation in relation to the MAFI's obligations on social and environmental safeguards, procurement, financial management and other country-specific requirements such as monitoring and evaluation. MAFI's AIPA would play a key role in the project's set-up for the implementation of the matching investment grant schemes. The Sustainable Development Account Moldova (SDA) would provide a key technical coordination role in the implementation of Component 3, to ensure swift and efficient implementation of the activities related to irrigation.	

1.2. Project location

Based on the available information to this stage of the Project, this section presents information on the locations of the planned activities or the appropriate information to be considered/used in the further implementation of the Project components.

The location of the activities under Component 1:

The activities under Component 1 of the Project are planned to be implemented mostly in Chisinau, where the beneficiary institutions are located (MAFI, AIPA, FSA, Republican Veterinary Center, Technical University of Moldova) and representatives of the territorial departments of AIPA and FSA could be invited during the technical assistance activities conduction. The location of the planned activities to be carried out for two regional centers of excellence would be established after these centers will be identified. These could be the College of the Veterinary Medicine and Agricultural Economics in Bratuseni (Edinet District) and the Agricultural College in Svetlîi (UTA Gagauzia).

The location of the activities under Component 2:

The location of the activities to be implemented under Component 2 will be established after the selection of the beneficiaries/farmers that will be apply for financing and support from the AGGRIP.

The dairy farms and feed and meat processors are located throughout the Republic of Moldova.

The location of the activities under component 3:

The centralized irrigation systems were mostly built during the ’70s to early ’90s, across an area of about 290.000 ha out of the approximately 1.220.000 ha that was considered suitable for irrigation (*Source: Land Cadastre, 2020*). 118.000 ha were located on the left side of the Dniester River and were used by state enterprises and by collective farms.

Subsequently, the area of the lands prepared for irrigation was extended to 320.000 ha in 1992, when were used water resources in a total volume of 692 mln m3, including from the Dniester (64%), Prut (25%), and other sources (11%).

In 2008, according to the data of the Agency “Apele Moldovei”, there were 77 CISs in the country with a coverage area of 131.688 ha (see the map below).

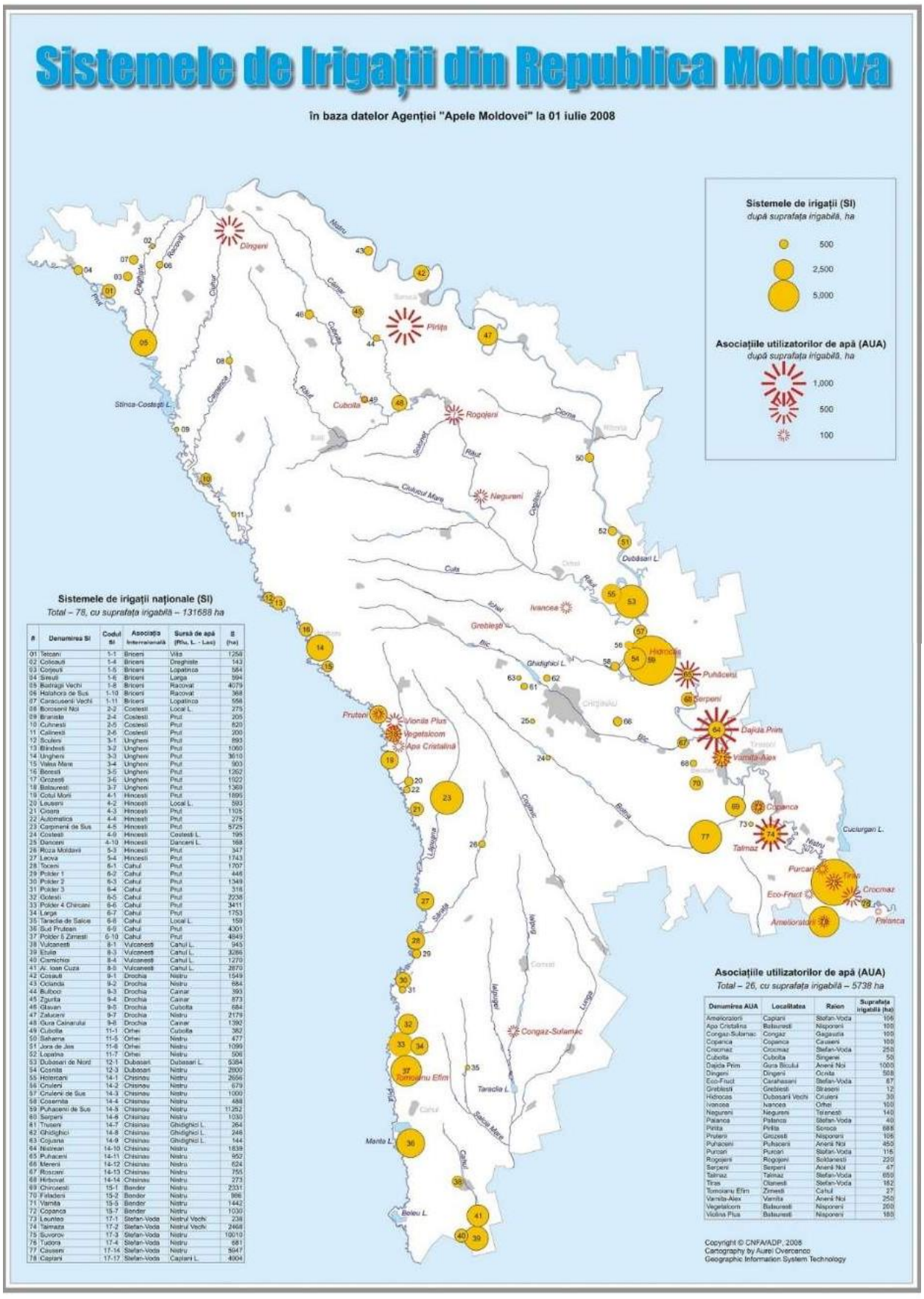
Currently, according to The Diagnostic Study of Irrigation Infrastructure managed by the State Agency "Apele Moldovei" (FDD, 2018)[4], the irrigation and drainage infrastructure in the country includes:

- 88 centralized irrigation systems, within which there are 276 pumping stations, (103 stations destined to capture water from the source and 173 water pumping stations from the compensation basins in the service area)
- 20 centralized drainage systems, including 41 water pumping stations in the drained area.

According to this Study, since 2013, the management of the irrigation infrastructure of the Republic of Moldova is exercised through 12 state-owned enterprises, called Irrigation Technology Stations (STIs), and 11 Water User Associations of Irrigation Purposes (WUAI).

The privatization process excluded the secondary and tertiary irrigation and drainage infrastructures as these were distributed as shares to the owners of agricultural lands situated in the CIS service area.

[4] The Diagnosis Study of the Irrigation Infrastructure (Final General Report). FDD/Intexnauca, 2018.

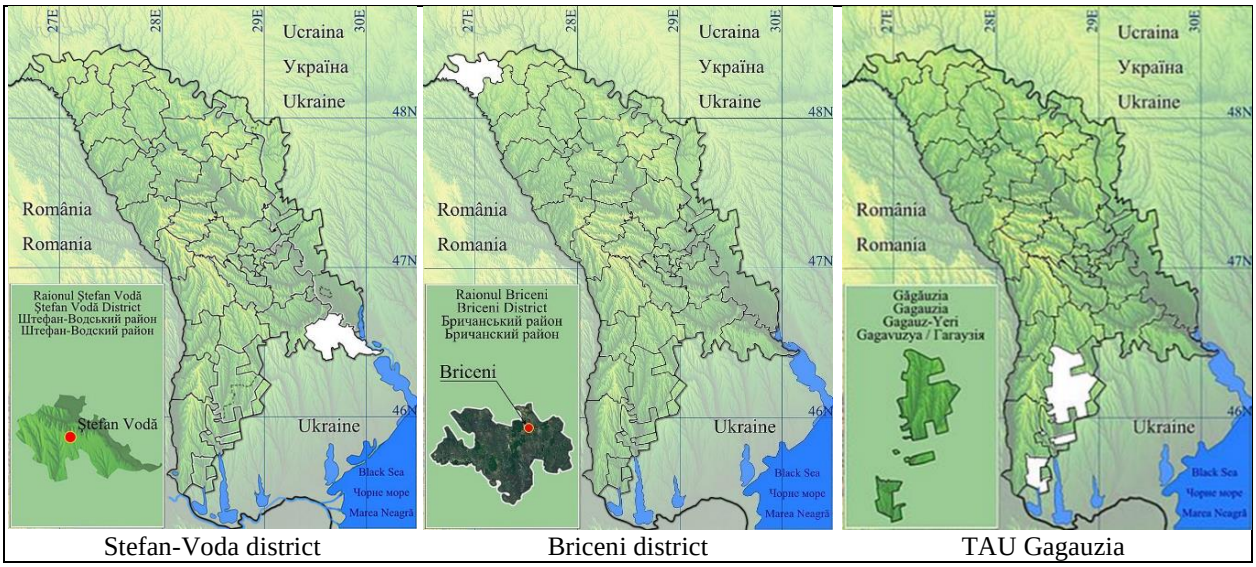


Currently, the 88 CISs have 276 pumping stations, transmission lines, and electrical transformers, networks and main channels, storage tanks, etc., mostly non-functional, which could ensure the water delivery in the networks of the WUAIs, households, and other landowners in the CIS area.

To achieve the AGGRIP specific objectives, the priority will be to attract financial sources from both the international FIs and private sources for the rehabilitation of CISs that have a historical service area of about 5.809 ha, using the sustainable water sources: Vilia and Lopatnic rivers – for Tetcani and Corjeuți CISs, Dniester River – for Tudora and Caplani CSIs, and Cahul Lake (Danube River) – for Etulia CIS:

Region	CIS Name/Locality	WUAI	Area proposed for rehabilitation (ha)
North	Tețcani + Corjeuți	Irigare Nord	1.258 + 584
South-East	Tudora, Caplani and Crocmaz	Irig-Com	681
South	Etulia	Altîn-Su	3.286
		Total:	**5.809**

Thus, the activities under Component 3 that are planned to be implemented in three regions of Moldova: south-east (localities Tudora, Caplani and Crocmaz from Ștefan Vodă district); north-west (localities Tețcani and Corjeuți from Briceni district); southern (Etulia commune from Cahul district and TAU Gagauzia) as can be seen on the bellow maps.



Stefan-Voda district | Briceni district | TAU Gagauzia

Figure 1: The districts of project intervention on the administrative map of the Republic of Moldova

The location of the activities under Component 4:

The location of the activities to be implemented under Component 4 will be established if this Component will be activated by Government of Republic of Moldova.

The location of the activities under Component 5:

The Component 5 will finance the Project management activities to be ensured by CAPMU, AIPA and SDA.

1.3. Purpose of the Environmental and Social Management Framework

A framework approach is adopted considering that the technical assessment (e.g., the updated feasibility studies, designs) and specific locations of project activities and of planned investments are not identified and their specific impacts are not known during the Project appraisal. In accordance with the World Bank's Environmental and Social Framework (ESF) requirements, an Environmental and Social Management Framework (ESMF) has been developed to identify, assess and manage environmental and social risks and impacts that may occur during the implementation of the Project's activities/sub-components. Specifically, this ESMF will facilitate the adequate preparation of AGGRIP's sub-components and sub-projects, and will be used in order to define and guide the environmental and social (E&S) assessments of the Project's sub-components and sub-projects, and to identify actions/measures in order to avoid, minimize or mitigate the potential impacts and risks, taking into consideration the relevant legislation and regulatory framework of the Republic of Moldova, World Bank's Environmental and Social Standards (ESSs) and Environmental, Health and Safety Guidelines (EHSGs).

The ESMF establishes principles, rules, guidelines and procedures for assessment of E&S risks and impacts, based on current information, environmental and social data. As a result, relevant environmental and social instruments will be prepared and used during implementation of each subcomponent. Types of environmental and social instruments and timing of their development and implementation are defined in the Environmental and Social Commitment Plan (ESCP) formally agreed between the Government of Republic of Moldova (GoM) and the World Bank.

In this context, the ESMF sets the principles, guidelines, procedures and activities that will need to be incorporated in the Environmental and Social Impact Assessments (ESIA) and Environmental and Social Managements Plans (ESMPs) to be prepared once the location of the new dairy farm or of the existing commercial dairy farm to be modernized, milk & meat processing and fodder production facilities and of new irrigation infrastructure (pipelines, repumping stations and storage basins), including:

- Environmental and social assessment of potential environmental and social risks/impacts;
- Procedures to address environmental and social issues;
- Institutional set-up for the sound implementation of assessment and mitigation measures;
- Mainstreaming ESMF principles in all other components of the Project (procurement, capacity building, etc.);
- Assuring monitoring of environmental and social risk management indicators at the level of each sub-project;
- Ensuring compliance with Moldovan legislation as well as with the WB's Environmental and Social Framework (ESF) and EHSGs applicable to the Project;
- Stakeholder engagement through public consultations, grievance management and feedback mechanism and provision of the information related to Project's benefits, positive and potential adverse environmental and social impacts generated by the Project's activities.

In case decision is made to activate the CERC component an addendum to the ESMF will be prepared and outline an environmental and social risk screening process built on the positive list of activities likely to be financed under the CERC component and identify institutional arrangements for oversight of any additional required due diligence and monitoring measures. The

ESMF Addendum will describe the objectives and scope of any additional CERC-financed activities and indicate whether they are new activities or expansion in activities already described in the ESMF. It will review any additional applicable national laws and regulations that govern that implementation of the CERC-financed activities and describe institutional roles and responsibilities for their implementation and for the environmental and social assessment and management of risks associated with their implementation. The ESMF addendum will include a positive and negative list of activities to be financed under the CERC and indicate whether they are existing or new activities under the Project. It will describe their scale, scope, potential locations and analyze the potential negative risks and impacts associated with their implementation. It will describe the procedure for screening and addressing the risks and impacts associated with each activity as well as arrangements for monitoring and reporting, grievance redress, consultations and information disclosure, budget and required resources. The project Stakeholder Engagement Plan (SEP) and Labor Management Procedures (LMP) may be updated to describe additional stakeholder analysis, engagement programming and labor requirements as identified after activation of the CERC.

2. Policy and Regulatory Framework Analysis

World Bank's ESF became effective in October 2018. The Framework sets out the Bank's commitment to sustainable development, through a Bank Policy and a set of ESSs that are designed to support Borrowers' projects, with the aim of ending extreme poverty and promoting shared prosperity. The Bank's Framework consists of three parts:

- A Vision for Sustainable Development, which sets out the Bank's aspirations regarding environmental and social sustainability;
- The Environmental and Social Standards, which set out the mandatory requirements that apply to the Borrower and projects;
- The World Bank Environmental and Social Policy for Investment Project Financing, which sets out the mandatory requirements that apply to the Bank.

In the context of the above mentioned, the projects supported by the Bank must comply with the ESSs. *Table 2* below gives overview of the ESSs and their applicability to this project.

Table 2: World Bank's Environmental and Social Standards

E&S Standard		**Applicable to the Project**
ESS1	Assessment and Management of Environmental and Social Risks and Impacts	Yes
ESS2	Labor and Working Conditions	Yes
ESS3	Resource Efficiency and Pollution Prevention and Management	Yes
ESS4	Community Health and Safety	Yes
ESS5	Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	Yes
ESS6	Biodiversity Conservation and Sustainable Management of Living Natural Resources	Yes
ESS7	Indigenous People	No
ESS8	Cultural Heritage	No
ESS9	Financial Intermediaries	Yes
ESS10	Stakeholder Engagement and Information Disclosure	Yes

The general national legal framework relevant to the Project implementation are presented in the *Table 3* below.

Table 3: Main national legal acts relevant to the Project

Legal document	General overview	Relevancy with the Project
Law on the environmental protection #1515-XII of June 16, 1993	Establishes the basic legal framework for drafting special normative acts and instructions issues of environmental protection.	Provides basic rules regarding environmental quality conditions, rights and duties of each actor with activities with potential impact to environment, - to be applied while conducting ESA for project activities.
Law on State Ecological Expertise #851-XIII of May 29, 1996[5]	Determines goals, objectives and principles of State Ecological Expertise (SEE), as well as basics of procedure.	Provides the list and ESA procedure for the small economical activities that are subject of Ecological Expertise – necessary for ESIA and implementation of project components.
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 could be relevant for Project as the proposed activities are listed in the Annexes 1 or 2 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 use 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 relevant for establishing the procedures, duties and obligations under the land management
Law on water protection strips along the rivers and water bodies #440 of 1995	Establishes the rules for creation of water protection zones and strips along rivers and water bodies, the regime of their use and protection	The law is relevant and is mandatory to be followed in the case of new construction or rehabilitation/extension activities
Law on natural resources #1102 of 1997	This law provides the basic principles of natural resource management and use. The legal act includes, among others, provisions for "payment for use of natural resources" and "payment for pollution pay" principles and other economic mechanisms aimed at the improvement of economic entities' production technology to minimize utilization of natural resources and enhance their protection and encouraging environmentally friendly economic activities	The law is relevant and is mandatory to be followed in the case of new construction or rehabilitation/extension activities
Law on taxes for pollution of the	This law refers to the taxes and penalties for the discharge of pollutants into the environment	The law is relevant and is mandatory to be followed in

[5] The Law on State Ecological Expertise is in force until October 21, 2023.

Legal document	General overview	Relevancy with the Project
environment #1540 of 1998		the case of new construction or rehabilitation/extension activities
Law on industrial safety of dangerous industrial facilities #116 of 2012	The law establishes the legal, economic and social aspects of safety operation of dangerous objects/enterprises, and focuses on prevention of industrial accidents, stoppage actions, minimization and liquidation of accident consequences, and protection of environment and population. Technical installations/devices used at dangerous objects/enterprises shall be subject to compulsory certification in compliance with industrial safety requirements in accordance with established order (Annex 1 of the Law explains that dangerous industrial objects are considered those technical installations disruption that can cause an accident)	The law is relevant and is mandatory to be followed in the case of new construction or rehabilitation/extension activities
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 provisions 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 project activities and should be reflected in the ESA documents for all proposed civil works
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	This law shall govern the rights of access to	This is relevant for ensuring

Legal document	General overview	Relevancy with the Project
information #982-XIV of May 11, 2000	information of public importance held by public authorities, with a view to exercising and protecting the public interest to know and attaining a free democratic order and an open society	disseminating information about implementation of the project and about potential environmental and social impacts
Law #239 / 2008 on Transparency in Decision Making	The law refers to the transparency of information linked with the decision-making process and to the consultation of stakeholders when drafting decisions. The consultation during the decision-making process aims at collecting, providing and exchanging information.	The law is relevant since it regulates the process of consultation and stipulates that the consultation of citizens, associations established in accordance with the law, other interested parties is ensured by the public authority responsible for drafting the decision.
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 adequate waste management at the level of each institution/company for the solid wastes, including hazardous ones (ABP, asbestos etc.)
Law on air protection #1422-XIII 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 civil works and operations, and also for ensuring the legal requirements for noise during civil works and facility operations
Law #171 of 09.07.2010 regarding water user associations for irrigation, modified in 2020	The law provides the principles and objectives of the operation and management of the irrigation water users associations. According to the law the association is established for the purpose of administration, exploitation and maintenance, in the public interest and in the interest of its members, of the irrigation and/or drainage system that was the basis of its formation.	The law is relevant for the implementation of the Component 3 of the Project on rehabilitation of the existing irrigation systems.
Administrative Code of Republic of Moldova, #116/2018	The administrative code establishes procedure for consideration of petitions of the RM citizens addressed to the relevant authorities/bodies for the purpose of ensuring protection of petitioners' rights and legitimate interests.	The law is relevant for the stakeholder engagement activities and feedback process of the citizen during the Project implementation.
Law on Expropriation for Reasons of Public Use #488 of 07.08.1999	The law applies in the case of the transfer to the state of public property belonging to an administrative-territorial unit or, as the case may be, the transfer of patrimonial rights to the state or to an administrative-territorial unit for the purpose of carrying out works for public utility of national interest or of local interest, under the conditions provided by law, after fair and prior compensation.	The law will be relevant for the project if for the implementation of the Component 3 of the Project the additional lands will be required and the planned activities will declared as public utility of national

Legal document	General overview	Relevancy with the Project
		interest.
Law on the official controls for verifying compliance with the legislation on animal feed and food products and with animal health and of welfare rules #50 of 28.03.2013	The law establishes the general rules on how to carry out official controls to verify compliance with the rules regarding: - prevention, elimination or reduction to acceptable levels of risks for human and animal health, either directly or through environmental conditions; - guaranteeing fair practices in the trade of animal feed and food products and protecting the interests of consumers, including the labelling of animal feed and food products and other forms of consumer information. - carrying out official controls pursuant to this law does not affect the primary legal responsibility that operators in the field of animal feed and in the food sector have to ensure the safety of animal feed and food products in accordance with the legislation in the field and no civil or criminal liability arising from non-compliance with their obligations.	The law is relevant for the implementation of the Component 2 of the Project. The law requirements ca be included in the impacts screening and during the impacts mitigation monitoring.

In this context, during implementation of the Project's activities both World Bank's requirements and national legislation will be considered and respected depending on the type of sub-project/activity and the implementation stage (design, construction or operation).

In this context, the *Table 4* below include a gap analysis of the requirements and provisions of the World Bank and of the national legislation. Also, the *Table 4* present the proposed actions to cover the identified gaps.

Table 4: The GAPs analysis of WB's requirements and national legislation

WB standards and requirements	Relevant national legislation	GAPs and proposed Project actions
ESS 1- Assessment and Management of Environmental and Social Risks and Impacts	Law # 86/2014 on Environmental Impact Assessment; Law on State Ecological Expertise #851-XIII of May 29, 1996[6]	The national legislation is requiring the conduction of environmental assessment or ecological expertise to obtain the environmental permit or permit/approval of the state ecological expertise. There are no requirements on social impacts and risks assessment. The proposed actions are: - Conduct an ESIA of the proposed subprojects, including stakeholder engagement. - Based on the ESIA, prepare site-specific ESMPs for each subproject financed under the AGGRIP. - Undertake stakeholder engagement and disclose appropriate information in accordance with ESS 10. - Develop an Environmental and Social Commitment Plan (ESCP) and implement all measures and actions set out in the legal agreement including the ESCP. - Conduct monitoring and reporting on the environmental and social performance of the project against the ESSs.
ESS 2 – Labor and Working Conditions	Labor Code #154 of March 13, 2003 Law on quality in construction #721 of February 02, 1996 Law on authorization of the executing the construction works #163 of July 09, 2010	Overall, the Moldovan OHS legislation is extensive, and generally, in line with the provisions set out in ESS2. The proposed actions are: - The development of the labor management procedures (LMPs) applicable to the project and attached to the ESMF. These procedures will set out the way in which project workers will be managed, in accordance with the requirements of national law and the ESS 2. The procedures will address the way in which this ESS will apply to different categories of project workers including direct workers, and the way in which the Borrower will require third parties (contracted workers) to manage in accordance with ESS 2. In addition, a Grievance Redress Mechanism for workers will be developed.
ESS 3 - Resource Efficiency and Pollution Prevention and Management	Law #303 on water supply services; Law on industrial safety of dangerous industrial facilities #116 of 2012;	Assessment of risks and impacts and proposed mitigation measures related to relevant requirements of ESS 3, including raw materials, water use, air pollution, hazardous materials, and hazardous waste are included within scope of the ESMF, and will be included further in the ESIA and ESMPs as relevant.

[6] The Law on State Ecological Expertise is in force until October 21, 2023

WB standards and requirements	Relevant national legislation	GAPs and proposed Project actions
	Law on wastes #209 of July 29, 2016; Law on air protection #1422-XIII of Dec 17, 1997.	
ESS 4- Community Health and Safety	Law #131 from 07.06.2007 on road safety; Prosecutor Code; Administrative Code; Law #163 of 09.07.2010 on authorization of construction works; Law #303 on water supply services; Law on state supervision of public health #10-XVI of February 03, 2009.	The national legislation does not include provisions related with pedestrian protection, public consultations, compensation procedures, etc. The proposed actions are: - To anticipate and avoid adverse impacts on the health and safety of project-affected communities during the project life cycle from both routine and non-routine circumstances. - To promote quality and safety, and considerations relating to climate change, in the design and construction of infrastructure. - To avoid or minimize community exposure to project-related traffic and road safety risks, diseases and hazardous materials. - To have in place effective measures to address emergency events. - To ensure that the safeguarding of personnel and property is carried out in a manner that avoids or minimizes risks to the project-affected communities. - To develop measures in the Traffic Management Plan (TMP), ESMP.
ESS 5- Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	Land Code #828-XII of Dec 25, 1991; The Law on Expropriation for Reasons of Public Use #488 of 07.08.1999 or Eminent Domain.	The Moldovan laws and regulation do not provide grounds for options to avoid the resettlement impacts and to improve the livelihoods of the affected persons. Lack of the provisions and requirements development of the involuntary resettlement instruments, such us RFP, RAP and LRP. The proposed actions are: - To adopt and implement a Resettlement Policy Framework (RPF) that has been prepared, disclosed and consulted on for the Project, consistent with ESS5 and describing how the resettlement actions for the irrigation systems rehabilitation component will be implemented. - To reflect the ESS 5 key objectives in the development of the feasibility studies and design. If displacements cannot be avoided, the Resettlement Action Plans (RAPs) will be developed according to ESS5 requirements. RAPs are subject to WB's review and approval.

WB standards and requirements	Relevant national legislation	GAPs and proposed Project actions
ESS 6- Biodiversity Conservation and Sustainable Management of Living Natural Resources	Law on green spaces of the urban and rural localities #591 of 1999; The Water Law #272 of Dec 23, 2012; Law on natural resources #1102 of 1997.	The applicability of ESS 6 depends on the environmental and social assessment described in ESS 1. The proposed actions are: - Screening for risk and adverse impacts on biodiversity associated with Project activities as described in the ESMF and apply relevant measures in ESMPs and in accordance with the guidelines of the ESIA prepared for the Project, and consistent with ESS6. - Any activities of Matching Grant Beneficiaries or irrigation systems rehabilitation which may be located in protected areas, critical habitats or internationally recognized areas of high biodiversity value, including Ramsar sites, will be considered ineligible for Project financing.
ESS 10-Stakeholder Engagement and Information Disclosure	Law on access to information #982-XIV of May 11, 2000; Law #239 / 2008 on Transparency in Decision Making; Law # 171 of 09-07-2010 regarding water user associations for irrigation.	Limited legal framework on public disclosure during all implementation stages of the Project. The national legal framework includes requirements on consultation during the environmental impacts' assessment, on participation of citizens in the decision-making process and on possibility to have access to public information. The proposed actions are: - To develop and implement a Stakeholder Engagement Plan (SEP) as part of this ESMF, disclosed and consulted on for the Project, consistent with ESS10. The SEP may be updated (and redisclosed) as needed during Project implementation. - To establish, publicize, maintain, and operate an accessible grievance mechanism, to receive and facilitate resolution of concerns and grievances in relation to the Project, including SEA/SH complaints.
Improving Animal Welfare in Livestock Operations	Law # 86/2014 on Environmental Impact Assessment; Government Decision #1275 of 17-11-2008 regarding the approval of the Sanitary-Veterinary Norm regarding the protection of farm animals; Law #50 of 28.03.2013 regarding the official controls for verifying compliance with the legislation on	According to the national law the environmental impacts assessment shall be carried out for the activities that include the construction or modernization of the facilities for intensive breeding of farm animals with a capacity of 100 cows and more. The IFC's standards and requirements are not limited by the number of the animals and good management practices in animal welfare are applicable for all livestock activities funded by IFC. The proposed actions are: - To conduct the environmental and social impacts screening at the stage of the selection of the potential beneficiary farms and processors.

WB standards and requirements	Relevant national legislation	GAPs and proposed Project actions
	animal feed and food products and with animal health and welfare rules, harmonized with Regulation (EC) #882/2004 of the European Parliament and of the Council of April 29, 2004 regarding the official controls carried out to ensure compliance with the legislation on animal feed and food products and with animal health and animal welfare rules.	- The identified risks and impacts will be assessed developing ESIA according to the ESS 1 and Law #86/2014. - The specific mitigation measures and benchmark to be met during the life of the Project will be established in the ESMP, disclosed according to the ESS 10 and monitored during the Project implementation.

3. Procedure for Environmental and Social Screening, Assessment and Management of Project Activities

Ministry of Agriculture and Food Industry is responsible for the overall implementation of the project through the CAPMU. The CAPMU will be responsible for day-to-day project management and support (for details see *Section 5.4* below), ensuring that project implementation is compliant with the World Bank's ESF – particularly, with the relevant ESSs; the World Bank Group's EHS Guidelines, and this ESMF. The CAPMU will be adequately staffed and maintained throughout the project life.

The process of implementation of this ESMF includes the following activities, to be undertaken by the CAPMU working closely with the project beneficiary[7]:

- E&S Screening of planning activity
- Develop E&S assessment instrument
- Consultation and disclosure
- Integration of ESIA/ESMP requirements into the project documentation
- ESIA/ESMP supervision, monitoring and reporting.

3.1. Initial screening of subproject activities

All activities undertaken by the project will be screened using the proposed form found in *Annexes 2 and 3* in order to exclude ineligible and high-risk activities, identify potential environmental and social issues, and classify the environmental and social risks (described below) and to determine the appropriate and necessary procedures, documents and tools. The scheme of EIA procedure is presented in the *Figure* below.

Where subprojects are likely to have minimal or no adverse environmental or social risks and impacts (i.e., technical assistance on drafting legislation, digitalization, procurement of office equipment, capacity building assistance, etc.), such subprojects do not require further environmental and social assessment following the initial screening.

Copies of each of these screening forms will be kept at the CAPMU. The CAPMU's quarterly report to the World Bank will include copies of each screening undertaken during the subject quarter.

[7] The expected AGGRI Project beneficiaries will be: Agency for Payment and Interventions in Agriculture (APIA), Food Safety Agency (FSA), including Republican Center for Veterinary Medicine, Center for Agricultural Consultancy (CAC) (as planned), Technical University of Moldova, Entities that will establish new or modernize existing commercially oriented livestock facilities, Water User Associations for Irrigation (WUAIs).

Risk Classification. The Bank classifies all projects into one of four classifications; the risk rating of operation on environment is described in the *Table 5* below.

Table 5. *Risk rating of operation on environmental components*

EA Category	EIA requirement	ESF risk class	Project Application
First category (A) – projects which may have significant impacts on the environment. They are specified in a special annexes to the Law on EIA (#86/2014) and require a full Environmental Impact Assessment before designing and can be further developed (detailed engineering design) with a positive approval of the EIA findings by the Environmental Agency – this conventional category mainly corresponds to WB project category with *high risk* as well as partly, to category with *substantial risk*, e.g., electrical transmission, some rural water supply projects, etc. Such subprojects are not expected under the AGGRI Project assistance.	Activities with significant impact at national level and on cross border context – the activities indicated in the Annex 1 to the Law #86/2014 for which the Environmental Impact Assessment is mandatory, as well as those mentioned in sbp. (2) that, after carrying out the preliminary assessment stage, the necessity of carrying out the EIA procedure is established, and the Environmental Agreement is issued or refused. The documentation submitted for obtaining the Environmental Agreement will be the basis for issuing the permissive act for the realization and development of the project activity, before beginning the construction works and putting into operation the objective.	**High** = complex scale and design, sensitive and significant risks, significant capacity concerns, factors outside project control impacting on performance	in accordance with ESSs
Second category (B) – projects which not listed in the Annex 1 to the Law on EIA, which may have less significant impact on environment. They require ecological substantiation of project activities. This might be presented in a special Environmental Chapter, which has to contain information on potentially affected environment as well as outline main potential environmental impacts and mitigation measures. This Chapter has to be included in the project design documentation and respectively, to be passed through the State Ecological Expertise before project implementation – this conventional category mainly corresponds to WB project categories with substantial or moderate risks. The Environmental Chapter in the documentation for such type of projects, to great extent, corresponds to "some environmental assessment/ environmental analysis" presumed for this project category.	*Activities with significant impact at national level* – the activities indicated in the Annex 2 to the Law #86/2014 for which the Environmental Impact Assessment is necessary to determine, as well as those mentioned in sbp. (2) that, after carrying out the preliminary assessment stage, the necessity of carrying out the EIA procedure is established, and the *Environmental Agreement* is issued or refused;	**Substantial** = less complex scale and design, less sensitive locations, some significant risks, some significant capacity concerns	in accordance with national law and any requirement of the ESSs that the Bank deems relevant for such subprojects
	Activities with moderate impact – are considered activities described in the Annex #1 of Law #851/1996 on ecological expertise, which involves the use of natural resources, modification of landscape, generation of wastes, emission and discharge of pollutants, and which can cause the change of the environmental components, and according to applicable laws it is necessary Ecological Expertise of the DD and CA;	**Moderate** = not complex, no sensitive areas, no significant risks with high potential for harm, no capacity concerns, site specific, predictable	Screen to determine low/moderate risk, apply relevant risk assessment and management instruments (ESIA, or self-standing ESMP)
Third category (C) – the rest of projects which are expected to have minor impacts on environment and therefore do not need to be passed through the formal procedures of EIA and SEE. This conventional category mainly corresponds to WB project category with low risk.	*Activities with low impact*, which no need *Certificate of Urbanism* (CU) for *Detail Design (DD)* and *Construction Authorization* (CA) in conformity with Law #163/2010 for authorization of construction works.	**Low** = minimal, negligible risk to people or environment, some further assessment may be required	Screen to determine low/moderate risk, apply relevant risk assessment and management instrument (ESMP Checklist)

In determining appropriate risk classification, the Bank takes into account relevant issues such as:

- Type, location, sensitivity and scale of the project
- Nature and magnitude of potential environmental and social risks and impacts
- The capacity and commitment of the Borrower (including any other entity responsible for the implementation of the project) to manage the E&S risks and impacts in a manner consistent with the ESSs.

Other areas of risk may also be relevant to the delivery of E&S mitigation measures and outcomes, depending on the specific project and the context in which it is being developed. These could include legal and institutional considerations; the nature of the mitigation and technology being proposed; governance structures and legislation; and considerations relating to stability, conflict, or security.

During the ESRS appraisal stage, this Project has been preliminary assessed according to the Environmental and Social Framework (ESF) risk classification (*Table 6*):

Table 6. *Risk rating of Project components*

Project Component	E&S Potential Risks and Impacts	E&S Risk Class
Component 1 – Enhancing Sector Governance and Agriculture Knowledge Management	Health and safety caused by COVID-19; Lack of information and improper communication between the implementation entities, services providers, and beneficiaries, etc.	**Low =** minimal, negligible risk to people or environment, some further assessment may be required
The Component 2 – Fostering Value Chain Development for Growth	Moderate environmental and social impacts during the construction and operation stages (e.g., soil, water and air pollution; health and safety risks during civil works; traffic disruptions, dust, noise and vibration, labor safety of the farms employees, etc.).	**Moderate-substantial =** less or not complex scale and design, less or no sensitive locations, no or some significant risks, no or some significant capacity concerns, and site specific, predictable
Component 3 – Strengthening Resilience through Irrigation Services	The risks and impacts during the construction stage are specifical for small-scale construction works (e.g., noise and vibration, dust, waste generation, water, soil and air pollution, asbestos dust pollution, pollutant emission, soil fertility degradation, erosion, salinization). Some community health and safety risks are estimated to be low and mitigable	**Moderate-substantial =** less or not complex scale and design, less or no sensitive locations, no or some significant risks, no or some significant capacity concerns, and site specific, predictable
Component 4 – Contingent Emergency Response Component	Some community health and safety risks are estimated to be low and mitigable	**Low =** minimal, negligible risk to people or environment, some further assessment may be required
Component 5 – Project Management	Some associated risks are estimated to be negligible or low and mitigable	**Low =** minimal, negligible risk to people or environment, some further assessment may be required

3.2. E&S assessment procedures and tools

The CAPMU and the project beneficiary will prepare and implement the necessary E&S instruments and procedures for each activity financed under the Project (in Romanian and English

languages). The scope of this AGGRI Project requires the following types of environmental and social tools that will guide the implementation of environmental and social mitigation measures and related procedures (see *Figure 2* below and *notes* on Component 3 subproject implementation):

Environmental and Social Impact Assessment (ESIA) is a tool for identifying and assessing the potential environmental and social impacts of a proposed project, evaluating alternatives, and developing appropriate mitigation, management, and monitoring measures. In some cases, a small-scale project may be subject to a partial ESIA to assess its location in relation to protected areas, habitat availability, etc. An ESIA a template is presented in *Annex 3* to this ESMF.

According to AGGRI Project list of planned and potential activities within project components for the following interventions the ESIA procedure will be required (according to risk category described above, and by Decision of the Environmental Agency, based on Law #86/2014 on environmental impact assessment) where the following thresholds are exceeded:

Component 2 potential activities:

(a) Intensive breeding facilities for farm animals or poultry, with the following capacities:
- for pigs – 500 heads and more (starting with October 21, 2023 – for pigs weighing from 7 to 30 kg – 500 heads and more, for pigs weighing from 30 kg and more – 50 heads and more, for sows – 30 heads and more)
- for cattle – 100 heads and more (starting with October 21, 2023 – 50 and more)
- for sheep, goats – 200 heads and more (starting with October 21, 2023)
- for rabbits, mink, chinchilla and other fur animals – 500 heads (in total) and more (starting with October 21, 2023)
- for birds (chickens, broilers, ducks, turkeys, geese, quails) – 10000 heads (summative) and more (starting with October 21, 2023 – 5000 heads).

Component 3 potential activities:

(b) Management of water resources for agriculture, including irrigation of 100 hectares and more (starting with October 21, 2023 – 50 ha and more, when the new law amendments will be in force)
(c) Long-distance water pipe installations of 5 km and more (starting with October 21, 2023 – 3 km and more)
(d) Projects on combating of soil erosion and land improvements from 1.5 ha (starting with October 21, 2023).

Environmental and Social Management Plan (ESMP) based on the sample found in *Annex 3*, contractors will develop site-specific ESMPs for any small-scale civil works and related expansion of activities to be conducted as planned within all project components. The ESMP shall be site-specific, and proportionate and relevant to the hazards and risks associated with the particular activity and will be implemented by the beneficiary and contractors. The ESMP template provided in the *Annex 3* of this ESMF identifies potential environmental, social, health and safety issues associated with the construction and operation of project planned facilities.

The ESMP requirements will be included in the bidding documents and contracts for the provision of civil works and works supervision services, thus binding contractors to comply with project standards and requirements.

ESMP Checklist – a simplified ESMP, which is usually used for general construction and rehabilitation works with typical and relatively minor impacts (within Components 1-3). The

ESMP Checklist consists of three sections:

- *Part 1* – is a descriptive part, which specifies characteristics of the sub-project in terms of physical location in-situ, organizational conditions regulating legislative and regulatory frameworks; description of the project is also given, which includes that its need in the program of increasing technical and organizational capabilities is specified, and, also description of the public consultation process is given. It also includes screening criteria and outcome of the screening exercise should be whether any of the sample ESMPs prepared in Part 2 would be sufficient or a site-specific ESMP to be prepared. This Part can be about two pages in volume, annexes can be used for more information, if necessary.
- *Part 2* – sets forth results of assessment of possible environmental and social impacts within the framework of the subproject, herewith, assessments are given in simple form "yes" or "no", and then measures for mitigation are given for each separate work type. At present, this list suggests examples of possible consequences. There is a possibility to extend the list of problematic issue and/or impacts in the Checklist.
- *Part 3* **–** shall include the work control (monitoring) plan in the course of construction and the project execution.

Part 2 and Part 3 of the Checklist will be included in the Bidding Documents for the Contractor. An example of an ESMP Checklist is provided in *Annex* 3.

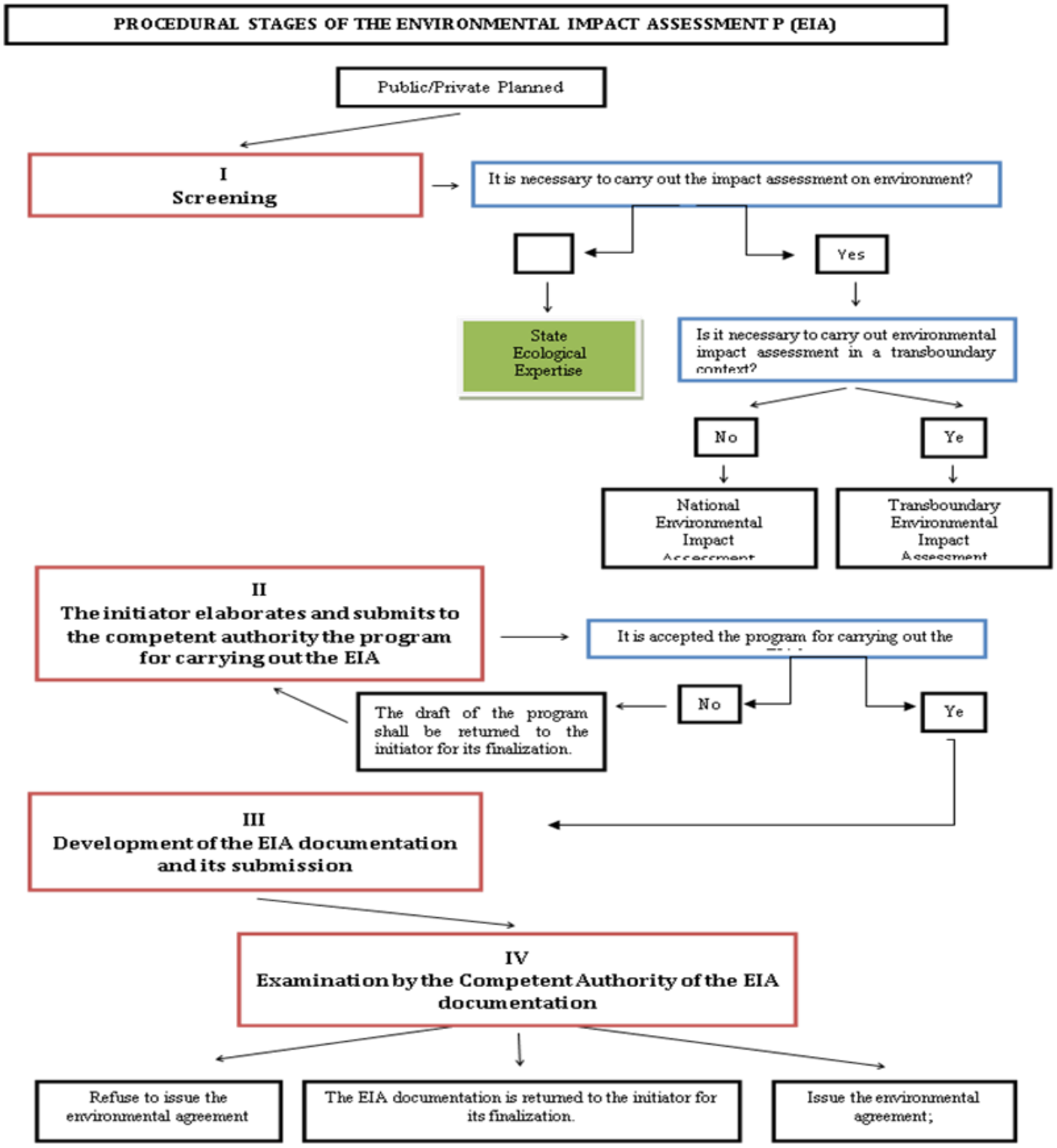


Figure 2. Procedural stages of environmental and social impact assessment (described as environmental impact assessment under national law).

Based on risks classification criteria (*Tables 5 and 6*) the necessity to develop ESIA, site-specific ESMP or ESMP checklist will be established. Thus, for high risks activities the ESIA and Site-specific ESMP will be developed, according to national legislation and WB's ESSs. For substantial risks activities the ESIA/partial ESIA and site-specific ESMP is required. For moderate risks activities a site-specific ESMP will be prepared. For the activities with the assessed risks as low will be applied the ESMP Checklist. The general approach on ES instruments application per components are described below (*Table 7*).

Table 7. Environmental and social impact assessment approach

Stage	Outputs	Component 1	Component 2	Component 3
Screening	Exclusion criteria/thresholds (when is an ESIA/ESMP required under each component)	X	X	X
Assessment (decide on scope of assessment)*	ESIA	No required	TBD based on screeening results	X
	Contractor ESMP	No required	X	X
	ESMP	No required	X	X
	ESMP Checklist	X	X	X
	SEP and LMP actions	X	X	X
Review (for management decision)	ESF documentation submitted to World Bank for quality review and clearance	X	X	X
	Public disclosure and consultation: to be undertaken on each ESIA/ESMP	No required	X	X
	Govt examination and decision to proceed with environmental agreement	No required	X	X

* The assessment should be undertaken utilizing both qualitative and quantitative methods and involving both field studies and secondary data to assess the project effects on a targeted baseline. Stakeholder analysis and engagement should also be integrated in the assessment design and participatory methods applied for a constructive basis of dialogue with end-users. ESIA findings and recommendations should be disclosed and consulted on with affected stakeholders.

3.3. Notes on the E&S aspects of irrigation rehabilitation (Subcomponent 3.1)

As per updated information on planned activities (and confirmed by local WUAs), there are no lakes/dams will be involved in the project activities, therefore the Dam Regulation (GovDecision #77/2016) is not applicable in case of rehabilitation of these 3 CISs:

(1) Tudora CIS – the water from the Nistru River will be abstracted and pumped (existing pumping station will be rehabilitated as planned) directly through the main pipe (new construction planned) to the existing/non-functional water storage reservoir, situated at the field, and then, through the rehabilitated existing repumping station and new installed network to the Caplani existing/functional pumping station. Water transfer elevation ~0-135-70 m.

Key environmental associated issues:

i) water extraction from the transboundary river (Dniester River)
ii) construction-related:
   - construction of new main pipeline (~4 + 13 km) and distribution network
   - rehabilitation of 2 pumping stations and 1 water storage reservoir (60k m3)
iii) water use:
   - depletion of surface waters
   - affection of local water ecosystems
   - water losses and pollution
   - impact on groundwaters (water level and contamination) within CIS, etc.
iv) agricultural land use:
   - soil fertility degradation

- erosion
- salinisation
- agro-chemical contamination, etc.

Applicable environmental regulations:

i) Before construction works:
   - *Preliminary Environmental Impact Assessment (PEIA)* procedure for the planned activities (Ref.: *Law #86/2014 on environmental impact assessment*) regarding:
     - Agricultural water management, including soil irrigation (more than 50 ha) (Ref.: *Law 86/2014, Annex 2, p. 1a*)
     - Dams and other types of installations to retain waters (10k and more m3) (Ref.: *Law 86/2014, Annex 2, p. 10g*)
     - Water supply infrastructure (3 km length and more) (Ref.: *Law 86/2014, Annex 2, p. 10j*)
     - Water supply networks and pumping infrastructure (Ref.: *Law 86/2014, Annex 2, p. 10n*)
     - Works for combating soil erosion and land improvements (1,5 ha and more) (Ref.: *Law 86/2014, Annex 2, p. 10o*)
   - In case of Environmental Impact Assessment for proposed activities (the Environmental Agency should decide) – *Notification of a potentially affected party (Ukraine) regarding the proposed activity in accordance with Article 3 of the Espoo Convention on environmental impact assessment in a transboundary context* (Ref.: *Law #86/2014, Art. 12,* and *Interstate agreement* in force*)

     *) Agreement on collaboration in protection and sustainable development of Dniester river basin (in original – *Acord între Cabinetul de Miniştri al Ucrainei şi Guvernul Republicii Moldova privind colaborarea în domeniul protecţiei şi dezvoltării durabile a bazinului rîului Nistru, semnat 29/11/2012*)

ii) Before operation:
   - *Authorisation* of water use for irrigation purposes (Ref.: *Law #272/2011 on waters*).

Tetcani CIS – the water from the Prut River will be abstracted and pumped (the new station is proposed) directly through the new installed pipeline to the existing/functional water storage reservoir (10 m3) situated at the field. Water transfer elevation ~85-90 m.

Key environmental associated issues:

i) water abstraction from the transboundary river (Prut River)
ii) construction-related:
   - construction and activation of new pumping station within protection strip of the local water ecosystem
   - construction of the main pipeline (~3-4 km) and distribution network
iii) water use:
   - depletion of surface waters
   - affection of local water ecosystems
   - water losses and pollution
   - impact on groundwaters (water level and contamination) within CIS, etc.
iv) agricultural land use:
   - soil fertility degradation
   - erosion
   - salinisation

- agro-chemical contamination, etc.

Applicable environmental regulations:

i) Before construction works:
   - *Preliminary Environmental Impact Assessment (PEIA)* procedure for the planned activities (Ref.: *Law #86/2014 on environmental impact assessment*) regarding:
     - Agricultural water management, including soil irrigation (more than 50 ha) (Ref.: *Law 86/2014, Annex 2, p. 1a*)
     - Water supply infrastructure (3 km length and more) (Ref.: *Law 86/2014, Annex 2, p. 10j*)
     - Water supply networks and pumping infrastructure (Ref.: *Law 86/2014, Annex 2, p. 10n*)
     - Works for combating soil erosion and land improvements (1,5 ha and more) (Ref.: *Law 86/2014, Annex 2, p. 10o*)
   - In case of Environmental Impact Assessment for proposed activities (the Environmental Agency should decide) – *Notification of a potentially affected party (Romania) regarding the proposed activity in accordance with Article 3 of the Espoo Convention on environmental impact assessment in a transboundary context* (Ref.: *Law #86/2014, Art. 12,* and *Interstate agreement* in force*)

     *) Agreement on cooperation in protection and sustainable use of a Prut and Danube waters (in original – in original – *Acord Intre Guvernul Republicii Moldova și Guvernul Romaniei privind cooperarea pentru protectia si utilizarea durabila a apelor Prutului si Dunarii, semnat 28/06/2010*)

ii) Before operation:
   - *Authorisation* of water use for irrigation purposes (Ref.: *Law #272/2011 on waters*).

Etulia CIS – the water from the Cahul Lake will be abstracted and pumped (existing main pumping station will be rehabilitated as planned) directly through the existing channel to the water storage reservoir situated at the field, and then, through the new 2 repumping stations, new water reservoir and new installed pipeline to the irrigated fields. Water transfer elevation ~30-110 m.

Key environmental associated issues:

i) water extraction from the transboundary lake
ii) construction-related:
   - construction of 2 new repumping stations
   - construction of new pipeline (~15 km) and water distribution network
   - construction of 2 new water storage reservoirs
   - rehabilitation of main pumping station
   - rehabilitation/lining of an existing channel with geomembrane (~1,6 km)
iii) water use:
   - depletion of surface waters
   - affection of local water ecosystems
   - water losses and pollution
   - impact on groundwaters (water level and contamination) within CIS
   - agricultural land use:
iv) agricultural land use
   - soil fertility degradation
   - erosion
   - salinisation

- agro-chemical contamination, etc.

Applicable environmental regulations:

i) Before construction works:
- *Preliminary Environmental Impact Assessment (PEIA)* procedure for the planned activities (Ref.: *Law #86/2014 on environmental impact assessment*) as following:
  - Agricultural water management, including soil irrigation (more than 50 ha) (Ref.: *Law 86/2014, Annex 2, p. 1a*)
  - Dams and other types of installations to retain waters (10k and more m3) (Ref.: *Law 86/2014, Annex 2, p. 10g*)
  - Water supply infrastructure (3 km length and more) (Ref.: *Law 86/2014, Annex 2, p. 10j*)
  - Water supply networks and pumping infrastructure (Ref.: *Law 86/2014, Annex 2, p. 10n*)
  - Works for combating soil erosion and land improvements (1,5 ha and more) (Ref.: *Law 86/2014, Annex 2, p. 10o*)
- In case of Environmental Impact Assessment for proposed activities (the Environmental Agency should decide) – *Notification of a potentially affected party (Ukraine) regarding the proposed activity in accordance with Article 3 of the Espoo Convention on environmental impact assessment in a transboundary context* (Ref.: *Law #86/2014, Art. 12,* and *Interstate agreement* in force*)

  *) *Agreement between the Government of the Republic of Moldova and the Government of Ukraine on the joint management and protection of the cross-border waters*, signed 23/11/1994

  Important to note: The volumes of water, previously agreed with Ukraine, allow the irrigation of about 30000 ha of agricultural land, compared to 3300 ha proposed for rehabilitation project.

ii) Before operation:
- *Authorisation* of water use irrigation purposes (Ref.: *Law #272/2011 on waters*)

3.3.1. Transboundary water use context

In case if the Environmental Agency will decide on *Environmental Impact Assessment* for proposed activities (the Environmental Agency should decide on base of the Preliminary Environmental Assessment for each CIS), a special *Notification* of a potentially affected party (Ukraine/Romania) regarding the proposed activity in accordance with *Article 3 of the Espoo Convention* on environmental impact assessment in a transboundary context (Ref.: *Law #86/2014 on environmental assessment, Art. 12*, and *Interstate agreements on transboundary waters* in force).

3.3.2. Available water resources for irrigation purposes

It can be noticed that the water abstraction for irrigation from the Dniester and Prut rivers has essentially decreased in the last years (see *Table 8* below).

Table 8. Water abstraction in the Republic of Moldova, million m^3 (Source: NBS)

	1989	1990	1999	2005	2010	2012	2014	2016	2018	2019	2020	2021
Total abstracted*	3,568	3,642	905	783	783	781	773	774	839	839	846	836
Dniester River Basin	3,295	3,396	858	759	759	758	753	754	810	807	**	**

Danube—Prut River and Black Sea Basins	273	246	47	24	24	23	20	20	29	32	**	**
Abstracted for irrigation	**578**	**816**	**73**	**41**	**42**	**43**	**41**	**41**	**41**	**44**	****	****

**) Since 1999, data for the Left Bank of Dniester are not reported. In addition, the total abstracted volume includes the technological needs of the Cuciurgan Thermal Power Plant - about 550 million m³/year*
***) No data found*

At the same time, the water resources of these rivers would allow to increase the water volumes abstracted for irrigation. *Table 9* shows the volumes of water, which can potentially be abstracted for irrigation according to the *Rules of operation of the Dniester accumulation reservoirs*.

Table 9. The potential of water abstraction from the Dniester River

Agreement item	Total per agreement	Quota per state according to agreement
The potential area of the irrigation systems, thousand ha	550	275
Water abstraction during a high level of runoff year, million m³	1,854	927
Water abstraction during a medium runoff year, million m³	2,080	1,040
Water abstraction during a dry year, million m³	2,434	1,217
Water abstraction during an extremely dry year, million m³	2,766	1,383

A similar situation is attested on the Prut River. Here, out of the 400 million m³ of water available for irrigation (according to the *Regulation for Operation and Maintenance of the Stânca-Costești hydro-technical node*), in recent years only less than 1%(!) has been abstarcted.

When analyzing the presented data, we can see that the water resources of the Dniester and Prut rivers in the dry years, due to the runoff regularization at the Dniester and Stânca-Costești hydro-technical nodes, can ensure irrigation of 375 thousand ha (225 ha from Dniester River and 100 thousand ha from Prut River).

However, at present, the actual water abstraction for irrigation is insignificant, and in 2019 it amounted to 36 million m³ or 2.6% of the 1,400 million m³ available (*Figure 3*: orange – Dniester water resources, red – Prut water resources) (Source: National Strategy on Irrigation Sector Development 2020-2030).

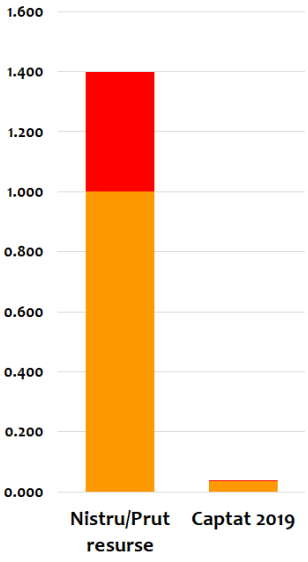


Figure 3. Water abstraction in relation to available resources (million m³)

Or, around of 40,000 ha farmlands are arranged to be irrigated at present, but the real physical area that is currently irrigated is 4,000-6,000 ha (Source: *National Strategy on Agricultural and Rural Development, 2023-2030*).

3.4. Consultation and disclosure

During and after the ESIA procedure and preparation of the ESMP, all documents (prepared in accordance with the principles of the World Bank and in accordance with the national legislation) are subject to public consultation.

During the consultations with the public, the ESIA/ESMP documentation will be distributed among all stakeholders and the local population by posting it on the websites and submission to the interested parties (e.g. LPAs, IWUAs) or in another way available for

wide discussion. The minutes of public meetings will be maintained and included in the final ESIA/ESMP package.

During the consultation session, CAPMU, with the support of environmental and social specialists, will consult a draft ESIA/ESMP, which should contain information about the Project, its location and implementation schedule, an overview of the ESIA process, as well as any conclusions about the impacts, proposed mitigation measures and benefits. This data should be defined as preliminary or intermediate, indicating that benchmark data from the participants can still be applied to the project planning. The participants will be invited to directly submit comments, additions, suggestions and corrections to what is presented.

The consultations with the public on the ESIA/ESMP of the specific subproject will include an announcement of the planned meetings on the CAPMU/project initiator/LPA website and available information boards in the locality no later than two weeks before the beginning of the session with a brief description of the Project, its location and specific contact details (including address, phone numbers, email). ESIA/ESMP documentation in Romanian and/or Russian languages and the minutes of the public consultation meetings should be posted on the websites of the MAFI, CAPMU and Public Property Agency. Copies of instruments prepared and disclosed will be included in the Quarterly Report to the World Bank and disclosed on the World Bank website at that time.

3.5. Integration of ESMP requirements into the project documentation

All tender/bidding documents for subprojects must include a requirement to implement the ESMP. These documents must be attached to the tender documents and then to the construction contracts. The potential contractor must demonstrate at the tendering phase that the requirements of the ESMP are reflected in its proposal and included in the scope of work.

3.6. ESIA/ESMP implementation: supervision, monitoring and reporting

CAPMU and SDA, consulting supervision company/consultant will regularly monitor implementation of this Framework, both at overall Project level and subprojects level as well as the subprojects during the construction to ensure proper implementation of the ESIA/ESMP provisions.

If any problems in implementation are noted during the monitoring, they will inform the relevant contractor and jointly take the corrective actions. The CAPMU will present its findings and monitoring results to the World Bank in the project progress report twice a year. These reports shall include progress on any on-going work within the Project, grievances received via the GRM and information on their resolution, summary of activities of each subproject. Photographic documentation and written evidence of non-compliance will be used as a means of recording implementation conditions efficiently. The World Bank project group will also visit the subproject sites as part of the project supervision, if appropriate and expedient. The Bank has the right to request additional materials during the monitoring to clarify the state of facilities and risks. Based on the review of reporting documentation and field visits, the Bank may require changes to the risk category and related project documentation, including the ESMP, Project Operational Manual given by the ESMF, etc.

4. Pest Management

The purposes of pest management safeguard requirements are: (i) to ensure good practices are applied in World Bank financed projects, (ii) avoid excessive use of pesticides, and (iii) promote environmentally sound and sustainable pest management. Its objectives include:

(i) minimize the environmental and health hazards related to pesticide usage,
(ii) ensure that pest management activities follow an Integrated Pest Management (IPM) approach, and
(iii) develop national capacity to implement IPM-based crop protection and pesticide regulation.

The overall pest management approach is based on the capacity of the country's regulatory framework and institutions to promote and support safe, effective and environmentally sound pest management (see *Box* below on pesticides usage in the country).

To decide if the proposed subproject triggers pesticide management issues, all subprojects are the subject of environmental screening, when the type and specific of activity(ies) and respective risk categories (H/S/M/L) are determined. After high and substantial risk activities are screened and excluded, all proposed activities with specific of "crop production" (incl. working capital and investments in farm equipment, including spraying machines, fertilizers, seeds) are already the subjects of pest management screening, which suppose the checking of existing on-farm pest management systems, licences and permits, IPM plans or any, incl. official acts according to national regulations, etc. (all these are specified in the *Annex 4* with the requested information to be provided by subproject beneficiaries at the screening stage. Overall, such initial assessment should go beyond checking for permits and licenses, to assessing whether the subproject is likely to result (indirectly) in increased usage of pesticides. This will also include an assessment of safety and appropriateness of the subproject beneficiaries' existing pesticide management practices (storage, handling/application, disposal of unused products and packages) and whether they are applying an *Integrated Pest Management* approach (see Section below).

Where a matching grant proposal or business plan involves pest management (after considering the exclusion list criteria on use of pesticides), the responsibility of each such subproject will be to prepare a *Pest Management Plan (PMP)*, format of which is attached in the *Annex 4* hereto. The PMP must be prepared also in the case of identified unsafe practices and/or of the absence of any type of IPM approach among the subproject beneficiaries, a PMP would need to be prepared and implemented.

The objective of the PMP is, first of all, to encourage adoption of IPM approach, increasing beneficiaries' awareness of pesticide-related hazards and good practices for safe pesticides use and handling and implementing all necessary mitigation and monitoring activities in this regard. Considering these, all sub-project beneficiaries will be required to formally commit to preparing and implementing a PMP on their farms. Furthermore, one of the specific requirements in this regard will be specifying in the document providing farmers with tools, options, training and technical support to encouraging them to adopt safer practices and IPM methods. Such commitment will constitute a condition for sub-project financing. Respectively, the PIU

Environmental Specialist will ensure the PMPs are prepared before accepting sub-project financing and conducting environmental supervision and monitoring as specified in respective section of the ESMF. The monitoring activities will include tracking compliance with the commitment or effectiveness of training and provided necessary technical support.

Box: **Potential pollution of the aquifer layer through pesticides or other agricultural fertilizers**

According to national statistical data (NBS – https://statistica.gov.md), the use of pesticides and fertilizers has increased in the last years, but the total volume is still modest if compared to the period of intensive agriculture (80-90s).

- The total quantity of chemical fertilizers used in agriculture has increased from 11200 tonnes in 1995 to 67893 tonnes in 2022 (*Table 1.1*); of all types of pesticides – from 2042 tonnes in 2010 to 6119 in 2022 (*Table 1.2*).
- In the category of pesticides, the largest share in the use of phytosanitary products is represented by biological/natural products, which registered an increase from 3.3 kg/ha in 2010 to 9.6 kg/ha in 2022.

Table 1. The use of fertilizers in agriculture

Fertilizers	**1995**	**1997**	**1999**	**2001**	**2010**	**2015**	**2022**
Total volume of **mineral/chemical** fertilizers applied, tonnes	11200	10100	3100	11300	20100	40100	67893
Use of mineral fertilizers, kg/ha	9	9	4	15	24,5	45,8	59,9
Total volume of **organic/natural** fertilizers applied, tonnes	**1517500**	260100	72000	75400	15100	56200	82606
Use of organic fertilizers, kg/ha	1,2	0,2	0,1	0,1	0,02	0,07	0,3

Table 1.2. The use of pesticides in agriculture

Per type of pesticide	**2010**	**2015**	**2022**
Insecticides applied, tonnes	257	297	547
Treated area, ha		238200	526909
Use of insectecides, kg/ha	1,32	1,25	1,04
Fungicides applied, tonnes	683	811	1359
Treated area, ha		337700	548823
Use of fungicides, kg/ha	3,17	2,4	2,48
Herbicides applied, tonnes	1030	1371	1632
Treated area, ha		760200	914497
Use of herbicides, kg/ha	2,08	1,8	1,78
Biological pesticides/bactericides, tonnes	38	80	659
Treated area, ha		30900	68587
Use of biological pesticides, kg/ha	3,26	2,59	9,61
Other pesticides applied, tonnes	34	245	1922
Treated area, ha		141500	300624
Use of other types of pesticides, kg/ha	0,75	1,73	6,39

4.1. Principles of Integrated Pest Management

The primary aim of pest management is to manage pests and diseases that may negatively affect production of crops so that they remain at a level that is under an economically damaging threshold. Pesticides should be managed to reduce human exposure and health hazards, to avoid their migration into off-site land or water environments and to avoid ecological impacts such as destruction of beneficial species and the development of pesticide resistance. One important

strategy is to promote and facilitate the use of IPM[8] through preparation and implementation of an Integrated PMP.

Integrated Pest Management consists of the judicious use of both chemical and non-chemical control techniques to achieve effective and economically efficient pest management with minimal environmental contamination. IPM therefore may include the use of:

a) Mechanical and Physical Control;
b) Cultural Control;
c) Biological Control, and
d) Rational Chemical Control.

IPM is the use of multiple techniques to prevent or suppress pests in a given situation. Although IPM emphasizes the use of nonchemical strategies, chemical control may be an option used in conjunction with other methods. Integrated pest management strategies depend on surveillance to establish the need for control and to monitor the effectiveness of management efforts. World Bank Group in the Environmental, Health, and Safety Guidelines prepared in 2007 provides the following stages should be considered when designing and implementing an Integrated Pest Management Strategy, giving preference to alternative pest management strategies, with the use of synthetic chemical pesticides as a last option. As a first essential step, those who make pest management decisions should be provided with training in identification of pests and beneficial (e.g., natural enemy) species, identification of weeds, and field scouting methods to evaluate which pests are present and whether they have reached an economic control threshold (the density at which they begin to cause economically significant losses).

4.2. Alternatives to Pesticide Application

Where feasible, the following alternatives to pesticides should be considered:

- Rotate crops to reduce the presence of pests and weeds in the soil ecosystem;
- Use pest-resistant crop varieties;
- Use mechanical weed control and/or thermal weeding;
- Support and use beneficial organisms, such as insects, birds, mites, and microbial agents, to perform biological control of pests;
- Protect natural enemies of pests by providing a favorable habitat, such as bushes for nesting sites and other original vegetation that can house pest predators and by avoiding the use of broad-spectrum pesticides;
- Use animals to graze areas and manage plant coverage;
- Use mechanical controls such as manual removal, traps, barriers, light, and sound to kill, relocate, or repel pests.

4.3. Pesticide Application

If pesticide application is warranted, users are recommended take the following actions:

- Train personnel to apply pesticides and ensure that personnel have received applicable certifications or equivalent training where such certifications are not required;

[8] This section is based on the World Bank Group in the Environmental, Health, and Safety Guidelines prepared in 2007

- Review and follow the manufacturer's directions on maximum recommended dosage or treatment as well as published reports on using the reduced rate of pesticide application without loss of effect, and apply the minimum effective dose;
- Avoid routine "calendar-based" application, and apply pesticides only when needed and useful based on criteria such as field observations, weather data (e.g., appropriate temperature, low wind, etc.),
- Avoid the use of highly hazardous pesticides, particularly by uncertified, untrained or inadequately equipped users. This includes:
- Pesticides that fall under the World Health Organization (WHO) Recommended Classification of Pesticides by Hazard Classes 1a and 1b should be avoided in almost all cases, to be used only when no practical alternatives are available and where the handling and use of the products will be done in accordance with national laws by certified personnel in conjunction with health and environmental exposure monitoring;
- Pesticides that fall under the WHO Recommended Classification of Pesticides by Hazard Class II should be avoided if the project host country lacks restrictions on distribution and use of these chemicals, or if they are likely to be accessible to personnel without proper training, equipment, and facilities to handle, store, apply, and dispose of these products properly;
- Avoid the use of pesticides listed in Annexes A and B of the Stockholm Convention, except under the conditions noted in the convention and those subject to international bans or phase-outs;
- Use only pesticides that are manufactured under license and registered and approved by the appropriate authority and in accordance with the Food and Agriculture Organization's (FAO's) International Code of Conduct on the Distribution and Use of Pesticides;
- Use only pesticides that are labeled in accordance with international standards and norms, such as the FAO's Revised Guidelines for Good Labeling Practice for Pesticides;
- Select application technologies and practices designed to reduce unintentional drift or runoff only as indicated in an IPM program, and under controlled conditions;
- Maintain and calibrate pesticide application equipment in accordance with manufacturer's recommendations. Use application equipment that is registered in the country of use;
- Establish untreated buffer zones or strips along water sources, rivers, streams, ponds, lakes, and ditches to help protect water resources;
- Avoid use of pesticides that have been linked to localized environmental problems and threats.

4.4. Pesticide Storage and Handling

Contamination of soils, groundwater, or surface water resources, due to accidental spills during transfer, mixing, and storage of pesticides should be prevented by following the hazardous materials storage and handling recommendations. These are the following:

- Store pesticides in their original packaging, in a dedicated, dry, cool, frost-free, and well aerated location that can be locked and properly identified with signs, with access limited to authorized people. No human or animal food may be stored in this location. The store room should also be designed with spill containment measures and sited in consideration of potential for contamination of soil and water resources;
- Mixing and transfer of pesticides should be undertaken by trained personnel in ventilated and well lit areas, using containers designed and dedicated for this purpose.
- Containers should not be used for any other purpose (e.g., drinking water). Contaminated containers should be handled as hazardous waste, and should be disposed in specially

designated for hazardous wastes sites. Ideally, disposal of containers contaminated with pesticides should be done in a manner consistent with FAO guidelines and with manufacturer's directions;

- Purchase and store no more pesticide than needed and rotate stock using a "first-in, first-out" principle so that pesticides do not become obsolete. Additionally, the use of obsolete pesticides should be avoided under all circumstances; a management plan that includes measures for the containment, storage and ultimate destruction of all obsolete stocks should be prepared in accordance to guidelines by FAO and consistent with country commitments under the Stockholm, Rotterdam and Basel Conventions.
- Collect rinse water from equipment cleaning for reuse (such as for the dilution of identical pesticides to concentrations used for application);
- Ensure that protective clothing worn during pesticide application is either cleaned or disposed of in an environmentally responsible manner;
- Maintain records of pesticide use and effectiveness.

4.5. Pest Management Plan

The content of the Pest Management Plan should apply to all the activities and individuals working. It should be emphasized also that non-chemical control efforts will be used to the maximum extent possible before pesticides are used.

The PMP should be a framework through which pest management is defined and accomplished. The Plan should identify elements of the program to include health and environmental safety, pest identification, and pest management, as well as pesticide storage, transportation, use and disposal. Management Plan is to be used as a tool to reduce reliance on pesticides, to enhance environmental protection, and to maximize the use of integrated pest management techniques.

The PMP shall contain pest management requirements, outlines the resources necessary for surveillance and control, and describes the administrative, safety and environmental requirements. The Plan should provide guidance for operating and maintaining an effective pest management program/activities. Pests considering in the Plan may be weeds and other unwanted vegetation, crawling insects and other vertebrate pests. Without control, these pests provoke plants' deceases. Adherence to the Plan will ensure effective, economical and environmentally acceptable pest management and will maintain compliance with pertinent laws and regulations. The PM should have a strong focus on providing beneficiary farmers with tools, options, training and technical support to encourage them to adopt safer practices and IPM methods, - all these issues have to be clearly included in the PMP. The recommended structure of a *PMP* is presented in the *Annex 4*.

5. Preliminary Assessment of Environmental and Social Risks and Impacts and Proposed Mitigation Measures

This section discusses the preliminary identification of potential environmental and social risks and impacts that may arise from the implementation of the Project and proposes measures to mitigate them at all stages of the Project activities, during design, construction, and operation. Ultimately, all proposed measures to prevent or mitigate possible adverse effects related to construction will be included by the CAPMU in the tender or contract documents, thus becoming mandatory elements of contracts for construction work and construction supervision.

It is important to underscore the fact that the environmental and social impacts identified at this stage are preliminary and generic in nature and will need to be further elaborated in terms of potential for occurrence (likelihood) and severity when the exact locations and sub-projects are known.

5.1. The Potential Positive Impacts

Component 1: Support to MAFI on rehauling its extension services, modernizing systems for the delivery of competent veterinary services to diary and meat farmers, and strengthening linkages between business service providers and farmers who are seeking support for EU compliance.

Component 2: Financial support (grants) to processors; Sustainable livestock development would positively contribute to poverty alleviation; Improvement of the livelihoods and incomes of indirect and direct beneficiaries including smallholder animal farms; Introduction of new technologies & quality standards at enterprises, use of advanced machinery & equipment, providing additional value to produced agricultural production, creating new opportunities for access to foreign markets, providing more food thus ensuring country's food safely; creating new jobs and better working conditions, especially for women, contribute to improvement of socio-economic conditions urban and rural areas.

Component 3: Reducing the level of waterlogging and salinization of the soil; Improving the distribution of water for irrigation; Reduction of water losses, including seepage losses; Improving the agricultural productivity of arable lands, increasing their area, increasing crop yields, increasing the income of farms and households; Improving employment opportunities, i.e. ensuring the level of employment and income of the population - use of local goods and services during construction works; Reduce poverty in rural areas of the project area.

Component 4: This is an unfunded contingency component that can be activated in case of an eligible emergency event. Following such an event, the Government of Republic of Moldova may request the WB to reallocate uncommitted project funds to support an emergency response. Eligible emergency and/or crisis is any natural or man-made event that has caused, or is likely to

cause imminently, a major adverse economic and/or social impact to the country. This design of the activities to be carried out under this component will consider the impacts of the precarious regional geopolitical context.

Component 5: This component will finance costs related to project implementation and coordination across various government agencies. Proper and efficient Project management will lead to timely and successful Project implementation.

5.2. The Potential Negative Impacts and Proposed Mitigation Measures

In order to develop and apply strategies for specific groups of stakeholders, with appropriate actions to avoid, reduce or mitigate the impact of the Project implementation process, the risks that may arise in the implementation of this process, the significance and the extent of the impact are identified and analyzed increasing the probability of the occurrence of a situation that represents a risk during the Project implementation.

The purpose of the risk assessment is to identify the potential impacts (real and perceived) of these risks and assess the significance and likelihood of each during the Project implementation process. The *Table* below show the framework that was used to determine the level of ES impacts based on the risk assessment:

Factor	Parameter	Significance
Level of impact	Low	No mitigation measures required
	Medium	Some mitigation measures may be required
	High	Mitigation measures are required
Likelihood	Rare	It will take place only in exceptional situations
	Unlikely	It could happen but it is not expected
	Possible	It could happen at some point
	Likely	It will probably happen in most cases
	More than likely	It should be expected to occur in most cases

Environmental and social mitigation requirements regarding the development of the Traffic Management Plan, LMP and ESMP by Contractor, proper implementation of the ESMP, GRM at project level, Grievance Redress for workers (GR), Code of Conduct that address, inter alia, SEA/ES and GBV issues, the LMPs developed for the Project, and the SEP to ensure the transparent implementation of the project, etc., will be incorporated in the technical specifications, and bidding documents, final designs, for the construction contractor(s) and technical supervision consultants and are aimed at avoiding, preventing, minimizing the potential social and environmental risks and impacts.

Also, if the Project activities will require the resettlement, the specifical Resettlement Action Plans (RAPs) will be developed based on the Resettlement Policy Framework (RPF) attached to this ESMF.

The final design documents package will also include a list suggesting approved spoil disposal sites; permits and agreements to be obtained from the relevant central and/or local public authorities for use of water resources, and sites for disposal of excavated spoils as appropriate; suggested list of construction preparation temporary sites such as access roads, transport and machinery sites, storage facilities, the measures to avoid at maximum the resettlement impacts,

etc. They should provide such technical solutions that will have minimum impact on the environment, natural resources, community health and safety and community income and economical activities.

5.3 Residual environmental and social impacts

Residual impacts are those that remain after all mitigation has been carried out. Assuming that all mitigation as indicated in the guideline tables are implemented appropriately, the residual effects, even cumulatively on all sub-projects, should not be significant. Summary of probable residual impacts generated by sectorial activities is presented in the *Table 10* below.

The key issue to minimize residual impacts is an "effective management"; it means that, where required, ESIA and SEE has to be carried out, ESMPs complied appropriately, be sound and implemented effectively, and effective monitoring has to be performed.

Table 10. Summary of potential residual impacts

Activity	Associated Residual Impact	Significance
Agriculture	Surface &underground water pollution, soil pollution, soil erosion and degradation, degradation of ecosystems	Low-moderate
Livestock raising	Surface&underground water pollution and overconsumption, soil pollution, animal diseases, degradation of ecosystems	Moderate
Irrigation	Surface &underground water pollution and overconsumption, soil pollution, soil erosion and degradation	Low-moderate
Construction	Surface water pollution, soil erosion	Low
Labor	Safety and working conditions of AGGRIP workforce	Low-moderate

Low = minimal, negligible risk to people or environment, some further assessment may be required	**Moderate** = not complex, no sensitive areas, no significant risks with high potential for harm, no capacity concerns, site specific, predictable	**Substantial** = less complex scale and design, less sensitive locations, some significant risks, some significant capacity concerns	**High** = complex scale and design, sensitive and significant risks, significant capacity concerns, factors outside project control impacting on performance

The expected cumulative impact of the activities under Component 2 is unlikely, better knowledge on best agricultural, agro-processing and livestock raising practices, will involve consequent improvements in the status of the environment in the country. Grants will be provided for Component 2 that might induce cumulative impacts if implemented contemporaneously in the same geographic area, but such impacts are likely to be further away in time and unable to be predicted.

In the agricultural production sector, for example, if there is a concentration of the purchase of a large number of livestock in one particular watershed, without effective waste management, the main river of the watershed could become heavily polluted as a result of a high concentration of livestock. Some activities may require additional water consumption thus contributing to lowering of groundwater table, or contribute to water pollution though additional polluted effluents thus contributing to deterioration of surface water quality and respectively, loss or degradation of aquatic habitats, biodiversity degradation, etc.

Pesticide and chemical fertilizer use in agricultural production may have a severe cumulative effect if unmitigated. Enterprises in a single small watershed could cumulatively have a significant effect on surface water bodies, resulting in damaged of aquatic ecosystems and affecting water quality downstream, sometimes in adjacent countries. Similarly, the impact on water quality of a common river used by several processing plants could be significant.

The cumulative risks of the proposed activities under Component 3 relate to changes in water use and the associated ESIAs for subcomponent activities will be undertaken in accordance with national regulation on *EIA*[9], *EU Guidelines on the Assessment of Indirect and Cumulative Impacts* as well as *Impact interactions*[10] and the *IFC good practice handbook.*

The summary of the preliminary E&S assessment and proposed mitigation measures a presented in the *Table 11* below.

[9] Law #86/2014 on environmental impact assessment
[10] https://ec.europa.eu/environment/archives/eia/eia-studies-and-reports/guidel.htm

Table 11. Potentially Environmental and Social Impacts of Proposed Project's activities

Component 1 - Enhancing Sector Governance and Agriculture Knowledge Management					
Proposed type of sub-projects/activities	**Potentially ES risks and impacts**	**Likelihood**	**Level of impact**	**Potentially affected parties[11] and interested parties**	**Proposed mitigation measures/Remarks**
- Enhancing functionality of the AIPA. - Training to staff involved in food safety policy formulation and management activities of MAFI and the FSA. - Essential office and connectivity equipment, veterinary kits, and transportation means to operationalize an emerging network and procurement of additionally necessary equipment for expanding the current testing capacity of the Republican Center for Veterinary Medicine and support the accreditation in new methods. - Procurement of the Systems for the generation and effective dissemination of essential advice on agricultural productive, processing and marketing aspects. - Support for the establishment and operationalization of the	Health and safety caused by COVID -19	Possible	Medium	The staff of the institutions that will participate in the trainings. The staff of the consultancy services and equipment providers. The staff of the implementation entities (MAFI and CAPMU).	Adequate precautions to prevent or minimize an outbreak of COVID-19, and an available action plan in the case of an outbreak. Information of all involved parties on precautions to prevent the outbreak of COVID-19. SEP and LMPs implementation.
	Lack of information and improper communication between the implementation entities, services providers, and beneficiaries.	Unlikely	Medium	The staff of the institutions that will participate in the trainings/Beneficiaries. The staff of the consultancy services and equipment providers/Consultants. The staff of the implementation entities (MAFI and CAPMU).	SEP implementation that includes the conduction of the awareness campaign and operation of the grievance redress mechanism during the Project implementation.

[11] Affected parties are those who are directly influenced (actually or potentially) by the Project and/or have been identified as most susceptible to potential risks and impacts associated with the Project, thus necessitating close engagement. These may include the potential beneficiaries of the Project and other parties who are subject to direct impacts from the Project.

Proposed type of sub-projects/activities	Potentially ES risks and impacts	Likelihood	Level of impact	Potentially affected parties[11] and interested parties	Proposed mitigation measures/Remarks
MAFI's CAC to be established by financing necessary technical assistance and equipment. - Establishment of three centers of veterinary excellence, including technical assistance, equipment and consumable for the establishment and operationalization of the veterinary centers.					

Component 2 - Fostering Value Chain Development for Growth – Technical assistance activities

Proposed type of sub-projects/activities	Potentially ES risks and impacts	Likelihood	Level of impact	Potentially affected parties and interested parties	Proposed mitigation measures/Remarks
Expanding partnership initiatives for milk collection and storing between dairy farmers and processors	Lack of information and improper communication between the implementation entities, services providers, and beneficiaries.	Unlikely	Medium	Dairy farmers and processors, meat processing and fodder production facilities, and national institutions responsible for food safety regulations (the Beneficiaries of the proposed activities).	SEP implementation that includes the conduction of the awareness campaign and operation of the grievance redress mechanism during the Project implementation.
Supporting the emergence of localized producer groups (cooperatives) for setting up milk & meat processing and fodder production facilities					
Supporting public food safety processes for regularizing and improving milk testing for key pathogens					
Technical assistance for eligible	Health and safety caused	Possible	Medium	The staff of the consultancy	Adequate precautions to prevent or

Proposed type of sub-projects/activities	Potentially ES risks and impacts	Likelihood	Level of impact	Potentially affected parties and interested parties	Proposed mitigation measures/Remarks
value chain analyses	by COVID -19			services providers. The staff of the implementation entities (MAFI and CAPMU).	minimize an outbreak of COVID-19, and an available action plan in the case of an outbreak. Information of all involved parties on precautions to prevent the outbreak of COVID-19. SEP and LMPs implementation.
The identification of and development support for potential productive partnership/cluster arrangements (including partnerships with processors)	Health and safety caused by COVID -19	Possible	Medium	The consulting companies if any The staff of the implementation entities (MAFI and CAPMU).	Adequate precautions to prevent or minimize an outbreak of COVID-19, and an available action plan in the case of an outbreak. Information of all involved parties on precautions to prevent the outbreak of COVID-19. SEP and LMPs implementation.
Matching grant facility for productive partnerships and the development of a matching grant financing mechanism for start-up clusters (including the possibility of providing matching investment grants to processors)	Lack of information or awareness of the programme/project	Possible	High	Farms New starters or small/family farms NGO in the agricultural field Local Public Authorities (LPA) of localities of location of the investments	SEP implementation that includes the conduction of the awareness campaign and operation of the grievance redress mechanism during the Project implementation.
	Discrimination– the farms/ agricultural enterprises should not be discriminated against any social or other	Rare	Medium	Female-headed farms/households Farms employing persons with disabilities	Female-headed farms, farms serving and/or employing people with disabilities etc. should have equal access to benefits. Under the Project, measures will be explored to support inclusion of Female-headed

Proposed type of sub-projects/activities	Potentially ES risks and impacts	Likelihood	Level of impact	Potentially affected parties and interested parties	Proposed mitigation measures/Remarks
	characteristics.				farms/households and others struggling to access finances. Social screening checklist will be used to ensure discriminations are avoided. SEP and LMPs implementation.
	Exclusion - the benefits of projects could be reached only for few farms/ commercial farms and processors who are well connected (elite capture) to market and services and to those enterprises with existing financial capacity and not reach rural new starters	Unlikely	High	Farms New starters or small/family farms Female-headed farms/households	It would be necessary to ensure access for all farms, especially in rural areas, and build avenues for obtaining support from the Project. SEP implementation, whose planned budget includes an awareness campaign. To disclose the information on the eligibility criteria and documents required as yearly is possible through awareness campaign. Provision of the sufficient time for applications of more types of farms and processors to meet the required eligibility criteria. Correct and transparent selection process of beneficiaries.

Component 2 - Fostering Value Chain Development for Growth – Civil works activities
Design Stage

Proposed type of sub-projects/activities	Potentially ES risks and impacts	Likelihood	Level of impact	Potentially affected parties and interested parties	Proposed mitigation measures/Remarks
Construction of the new or	Resettlement	Rare	Low	-	-

Proposed type of sub-projects/activities	Potentially ES risks and impacts	Likelihood	Level of impact	Potentially affected parties and interested parties	Proposed mitigation measures/Remarks
modernization of the existing dairy farms	Community health and safety	Rare	Low	-	Development of the ESMP to be implemented during the construction works.
	Animals' health and safety	Rare	Low	-	Impacts screening, including ESAP developed by applicants to be revised and approved by CAPMU. ESMP development for construction.
	Labor conditions, including OHS	Unlikely	Medium	Implementation entities	Adequate precautions to prevent or minimize an outbreak of COVID-19, and an available action plan in the case of an outbreak. Information of all involved parties on precautions to prevent the outbreak of COVID-19. SEP and LMPs implementation. The requirements for labor conditions to be included in the bidding documents and the contracts.
	Discrimination and exclusion at the selection of the potential beneficiaries of the proposed investments	Unlikely	High	Dairy farms New starters or small/family farms Female-headed farms/households	Social screening checklist will be used to ensure discriminations are avoided. Ensure transparent selection. SEP and LMPs implementation.

Component 2 - Fostering Value Chain Development for Growth – Civil works activities
Construction Stage

Proposed type of sub-projects/activities	Potentially ES risks and impacts	Likelihood	Level of impact	Potentially affected parties and interested parties	Proposed mitigation measures/Remarks
Construction of the new or	Resettlement	Rare	Low	-	The civil works will be carried out on the

Proposed type of sub-projects/activities	Potentially ES risks and impacts	Likelihood	Level of impact	Potentially affected parties and interested parties	Proposed mitigation measures/Remarks
modernization of the existing dairy farms, including the following potentially works: - Cleaning the land, including the clearing of trees and shrubs if necessary; - Excavations; - Loading and/or transporting the earth following excavations; - Iron cutting and welding; - The installation and assembly works of the foundation, walls and roof will be determined depending on the solutions proposed in the detailed design (prefabricated materials will be used or the facilities will be built on site); - Production and casting of concrete or just casting of precast concrete.					lands owned by beneficiaries' farms or households. No land taking is required under this subcomponent. Should any land or property be acquired by beneficiaries, it will be on a willing buyer-willing seller basis as documented by legal transaction records.
	Community health and safety	Unlikely	Medium	Farmers' workers Families 'members of beneficiaries involved in the works at farms The inhabitants of the localities where the works will take place Vulnerable groups	Some community health and safety risks may be present due to the possible interaction with nearby communities during transport of equipment and machinery or during localized construction activities. All contractors and sub-contractors to be involved in the civil works and transport of equipment and machinery will comply with this ESMF and ESMP. The ESMP that will implement during the construction works will be developed, implemented, and monitored. Activities associated with small-construction works are unlikely to generate disproportionate impacts on vulnerable groups. SEP and LMPs implementation.
	Influx of construction workers into local communities	Rare	Low	-	Due to small construction and rehabilitation works there will be a small number of workers on site for short periods of time. Thus, there is no substantial labor influx during the construction period. LMPs and SEP implementation.

Proposed type of sub-projects/activities	Potentially ES risks and impacts	Likelihood	Level of impact	Potentially affected parties and interested parties	Proposed mitigation measures/Remarks
	Animals' health and safety	Unlikely	Medium	Beneficiary farms	ESAP development by beneficiaries at application for financing. ESAP will be revised and approved by CAPMU during the environmental and social impacts screening. ESAP implementation and monitoring, according to the IFC's Guidance Note regarding Improving Animal Welfare in Livestock Operations. ESMP for construction works will also include the mitigation measures to ensure the animal health and safety during the construction works.
	Labor risks for workers involved in the construction works, including OHS	Possible	High	-	The potential labor risks are specifically to small-scale construction works, mitigable through the compliance of the developed Project's LMPs, LMP developed by every Contractor to be involved in the Project and of the ESMP. After screening of every proposed sub-project (at the selection of the beneficiaries under Component 2), the implementation entities will ensure that activities involving significant risks to labor rights, health and safety of employees, and child or forced labor will to be excluded from Project financing. The LMP developed by Contractors will provide the data on workers to be involved in the Project, including age (under the age of 18 years).
	Sexual Exploitation, Abuse and Harassment	Rare	Low	Community members, including the employes of the farms	SEP and LMPs implementation. These risks are estimated to be low and

Proposed type of sub-projects/activities	Potentially ES risks and impacts	Likelihood	Level of impact	Potentially affected parties and interested parties	Proposed mitigation measures/Remarks
				Project workers	mitigable by complying with the Code of Conduct by all Project's workers and operation of a grievance mechanisms respecting confidential grievances. A suggested Code of Conduct to ensure compliance with requirements to combat Sexual Exploitation, Abuse and Harassment is provided in *Annex* 1 to the LMPs.
	Increased risk of communicable diseases, including COVID-19	Possible	Medium	Community members, including the employes of the farms Project workers	SEP and LMPs implementation. A guide on COVID-19 Considerations in Construction/Civil Works is attached as *Annex* 2 to the LMPs.
	Waste generation	Possible	High	Community members, including the employes of the farms Project workers	The ESMP developed by Contractor will include the actions and measures to be carried out for waste management during the construction stage, including organizing the system of separate collecting waste at the site; collecting and storing waste of different types in the containers intended for it; Marking containers for collecting waste (e.g. with the indication of a class of danger and a type of the collected waste); collecting hazardous waste in a liquid and paste like phase in the special capacities providing tightness and anticorrosive stability and established in the specially allotted place; obtaining Permission to construction wastes disposal (the waste which is formed as a result of construction activity has to be taken out to the dump or processed by the licensed companies); observing that the placed waste wasn't in places of possible flooding.

Proposed type of sub-projects/activities	Potentially ES risks and impacts	Likelihood	Level of impact	Potentially affected parties and interested parties	Proposed mitigation measures/Remarks
	Noise and vibration	Likely	Medium	Community members, including the employes of the farms Project workers	Development, implementation, and monitoring of the ESMP and ESMP developed by Contractor for construction stage. The mitigation measures will include the following: Organization of the work from 7:00 till 18:00 on weekdays; Minimizing operating time of the rustling equipment idling; Using the modern equipment and mechanisms with the low level of noise and vibration; Covering the motor casings of generators, air compressors and other similar equipment; Operating the equipment on the maximum distance from the housing; Providing personal protective equipment (PPE) to all workers.
	Dust	Likely	Medium	Community members, including the employes of the farms Project workers	Development, implementation, and monitoring of the ESMP and ESMP developed by Contractor for construction stage. The mitigation measures will include the following: Organizing work in a such a way to reduce the quantity of dust by using water to spread the construction site; Providing PPE to workers for dust protection; Installing signs for informing drivers about possible risk connected with dust on the local road; Covering truck bodywork with awnings while transportation of raising dust freights.
	Pollutants emissions	Possible	High	Community members, including the employes of the farms	Development, implementation, and monitoring of the ESMP and ESMP developed by Contractor for construction stage.

Proposed type of sub-projects/activities	Potentially ES risks and impacts	Likelihood	Level of impact	Potentially affected parties and interested parties	Proposed mitigation measures/Remarks
				Project workers	The mitigation measures will include the following: Stopping engines when there are no tasks to perform; Refiling tanks with fuel from Authorized Stations only; Using equipment with law consumption of fuel; Ensuring equipment and vehicle maintenance in good order; Refiling tanks in the morning or in the evenings to avoid evaporation of fuel in the summer warm period.
	Equipment safety	Possible	High	Project workers	Development, implementation, and monitoring of the ESMP and ESMP developed by Contractor for construction stage. All Contractors' equipment must comply with applicable Law #116 of 18.05.2012 on Industrial safety and must hold authorization and competent personnel to manage industrial equipment like as cranes, crane lifts, etc. All equipment has to be well maintained and in good state of operation.
	Air pollution	Possible	High	Beneficiary farms Community members, including the employes of the farms Project workers	Development, implementation, and monitoring of the ESMP based on ESIA and ESMP developed by Contractor for construction stage. The Contractor ESMP will include the measures to avoid or minimize the air pollution, such as establishing the ban on use at construction of the materials and substances emitting cancerogenic and toxic substances in the atmosphere; minimizing an operating time of motor transport engines idling; organizing the passing of

Proposed type of sub-projects/activities	Potentially ES risks and impacts	Likelihood	Level of impact	Potentially affected parties and interested parties	Proposed mitigation measures/Remarks
					control by all vehicles concerning CO emissions and smoke; Establishing the ban on combustion of solid wastes.
	Water pollution	Possible	High	Beneficiary farms Community members, including the employes of the farms Project workers	ESMP development and implementation based on the ESIA. Approval and monitoring of the Contractor ESMP implementation, that will include the mitigation measures such as establishing the ban on unregulated selection of subterranean waters or uncontrollable dumping of industrial waters, cement mortars or any other polluted waters into the soil; ensuring measures for prevention of spill of fuels and oils and other toxic or dangerous substances; establishing the ban on a wash of machines and mechanisms on the construction site; water will be used for the construction process in accordance with the technical specifications of the detail design; household waste waters will be discharged to the existing sewerage network; water consumption will be monitored and measured; Rain-waters will be disposed of from the site through the existing networks
	Soil damage	Possible	High	Beneficiary farms Community members, including the employes of the farms	ESMP development and implementation based on the ESIA. Approval and monitoring of the Contractor ESMP implementation, that will include the mitigation measures such as establishing the ban on fueling of the construction equipment on the building site; carrying out small repair of the construction equipment, replacement of oils and technological

Proposed type of sub-projects/activities	Potentially ES risks and impacts	Likelihood	Level of impact	Potentially affected parties and interested parties	Proposed mitigation measures/Remarks
					liquids only at authorized car repair shops; the machine equipment and mechanisms will be checked regularly regarding possible leak of fuel; the fulfilled fuels and oils will be collected and temporarily placed on storage in the individual containers located in the safe place until are sent for final utilization and neutralization; the fertile soil will be collected separately and will be used later to improve the surrounding areas; the fertile soil and the depth of the uncovered layer will be uncovered according to the recommendations of detail design; it is forbidden to mix fertile soil with sterile soil or construction waste.
	Impacts on local vegetation (trees, bushes, grass)	Rare	Low	Beneficiary farms	In the ESIA this risk will be assessed.
Equipment and materials transportation to the site	Traffic disruptions due to movement of construction materials	Possible	Medium	Beneficiary farms Community members, including the employes of the farms Project workers	The Contractors will develop and ESMP for construction stage that will include a traffic management plan (TMP), and road-traffic safety plan to ensure the safety materials and equipment transport for all roads' users, community members and workers. The TMP will be coordinated with Municipal Police. Monitoring of the Contractor ESMP implementation. SEP and LMPs implementation, including GRM operation.

Proposed type of sub-projects/activities	Potentially ES risks and impacts	Likelihood	Level of impact	Potentially affected parties and interested parties	Proposed mitigation measures/Remarks
	Community health and safety	Rare	Medium	Community members, including the employes of the farms	The Contractors will develop and ESMP for construction stage that will include a TMP, and road-traffic safety plan to ensure the safety materials and equipment transport for all roads' users, community members and workers. The TMP will be coordinated with Municipal Police. Monitoring of the Contractor ESMP implementation. SEP and LMPs implementation, including GRM operation.

Component 2 - Fostering Value Chain Development for Growth – Civil works activities **Operation Stage**

Proposed type of sub-projects/activities	Potentially ES risks and impacts	Likelihood	Level of impact	Potentially affected parties and interested parties	Proposed mitigation measures/Remarks
Operation of the dairy farms and milk and meat processing and fodder production facilities	Pollutants emissions	Possible	Medium	Beneficiary farms Community members, including the employes of the farms	Monitoring and controlling of air emissions, ensuring proper functioning of existing technological equipment and screen/filter systems, complying conditions of Environmental Authorization for emissions of pollutants (Law #1422/1997 on air protection).
	Noise and vibration	Possible	Medium	Beneficiary farms Community members, including the employes of the farms	Ensuring proper functioning of existing technological equipment, installing insulation and protective screens, complying conditions of Sanitary Authorization for operations.

Proposed type of sub-projects/activities	Potentially ES risks and impacts	Likelihood	Level of impact	Potentially affected parties and interested parties	Proposed mitigation measures/Remarks
	Solid wastes	Possible	Medium	Beneficiary farms Community members, including the employes of the farms	Monitoring and controlling of generated solid wastes, contracting of authorized wastes operator.
	Water using	Possible	Medium	Beneficiary farms Community members, including the employes of the farms	Monitoring and controlling of generated wastewaters, ensuring contractual conditions of discharge to the commune sewerage system or operation based on authorization for special water using (Law #272/2011).
	OHS issues	Possible	Medium	Beneficiary farms Community members, including the employes of the farms	Ensuring of personnel periodic medical control and workspaces risk assessment.
	Working environment	Possible	Medium	Beneficiary farms Community members, including the employes of the farms	Monitoring and controlling of working environment, complying conditions of Sanitary Authorization for operations.
	Equipment safety	Possible	Medium	Beneficiary farms Community members, including the employes of the farms	Ensuring of equipment and EMM testing and certification, receiving of Industrial Safety Authorization.
	Emergency and equipment	Possible	Medium	Beneficiary farms Community members, including the employes of the farms	Keeping under control the emergency situation and risks, and ensuring competent personnel to react in case of emergency.
	Community health and safety	Possible	Medium	Beneficiary farms	Keeping under control aspects which can disturb community for the period of

Proposed type of sub-projects/activities	Potentially ES risks and impacts	Likelihood	Level of impact	Potentially affected parties and interested parties	Proposed mitigation measures/Remarks
				Community members, including the employes of the farms	operation.
	Vehicles	Possible	Medium	Beneficiary farms Community members, including the employes of the farms	Keeping under control traffic management aspects and maintenance of vehicle, etc.
	Animals' health and safety	Possible	Medium	Beneficiary farms Community members, including the employes of the farms	ESAP implementation. Complying with the national legislation regarding the health and safety of animals. Successfully passing the surveillance controls regarding the health and safety of animals provided by law no. 50 of 28-03-2013 regarding the official controls for verifying compliance with the legislation on animal feed and food products and with animal health and welfare rules.

Component 3 - Strengthening Resilience through Irrigation Services
Design Stage

Proposed type of sub-projects/activities	Potentially ES risks and impacts	Likelihood	Level of impact	Potentially affected parties and interested parties	Proposed mitigation measures/Remarks
Rehabilitation of the existing irrigation infrastructure and construction of the new pipelines, (re)pumping stations, distribution networks and water storage reservoir.	Resettlement	Possible	High	Landowners affected by resettlement IWUAs and their members LPAs Community members, including vulnerable groups	The design will focus on minimizing the need for resettlement and land acquisition considering that the rehabilitation or replacement works required will be carried out on publicly owned property or within existing alignments. The new pipelines can be located within the road reserve. The project will use government/state

Proposed type of sub-projects/activities	Potentially ES risks and impacts	Likelihood	Level of impact	Potentially affected parties and interested parties	Proposed mitigation measures/Remarks
				identified in the SEP	owned land as much as possible for the needed new infrastructure. In case land acquisition is necessary, the property and inheritance rights of affected people will be respected, and procedures specified in the RPF and relevant RAPs will be followed. Project activities that result in physical and/or economic displacement will not begin until such specific plans have been finalized and approved by the Bank. SEP implementation. Resettlement planning screening will be used to identify the type and nature of potential negative impacts resulting from the activities proposed under the Project and provide adequate measures to address these impacts.
	Community health and safety	Rare	Low	-	
	Labor conditions, including OHS	Unlikely	Medium	Implementation entities, including the Contractors and Consultant to be involved at the design stage	Adequate precautions to prevent or minimize an outbreak of COVID-19, and an available action plan in the case of an outbreak. Information of all involved parties on precautions to prevent the outbreak of COVID-19. SEP and LMPs implementation.

Proposed type of sub-projects/activities	Potentially ES risks and impacts	Likelihood	Level of impact	Potentially affected parties and interested parties	Proposed mitigation measures/Remarks
					The requirements for labor conditions to be included in the bidding documents and the contracts.

Component 3 - Strengthening Resilience through Irrigation Services
Construction Stage

Proposed type of sub-projects/activities	Potentially ES risks and impacts	Likelihood	Level of impact	Potentially affected parties and interested parties	Proposed mitigation measures/Remarks
Rehabilitation of the existing irrigation infrastructure and construction of the new pipelines, (re)pumping stations, distribution networks and water storage reservoir.	Resettlement	Possible	High	Landowners affected by resettlement IWUAs and their members LPAs Community members, including vulnerable groups identified in the SEP	Implementation of the RAPs, ESMP and ESMP for construction works and of the SEP.
	Community health and safety	Unlikely	Medium	The inhabitants of the localities where the works will take place Vulnerable groups	Some community health and safety risks may be present due to the possible interaction with nearby communities during transport of equipment and machinery or during localized construction activities. All contractors and sub-contractors to be involved in the civil works and transport of equipment and machinery will comply with this ESMF and ESMP. The ESMP that will implement during the construction works will be developed, implemented, and monitored. Activities associated with small-

Proposed type of sub-projects/activities	Potentially ES risks and impacts	Likelihood	Level of impact	Potentially affected parties and interested parties	Proposed mitigation measures/Remarks
					construction works are unlikely to generate disproportionate impacts on vulnerable groups. SEP and LMPs implementation.
	Influx of construction workers into local communities	Rare	Low	The inhabitants of the localities where the works will take place Vulnerable groups	Due to small construction and rehabilitation works there will be a small number of workers on site for short periods of time. Thus, there is no substantial labor influx during the construction period. LMPs and SEP implementation.
	Labor risks for workers involved in the construction works, including OHS	Possible	High	Contractors' workers	The potential labor risks are specifically to small-scale construction works, mitigable through the compliance of the developed Project's LMPs, LMP developed by every Contractor to be involved in the Project and of the ESMP. The implementation entities will ensure that activities involving significant risks to labor rights, health and safety of employees, and child or forced labor will to be excluded from Project financing. The LMP developed by Contractors will provide the data on workers to be involved in the Project, including age (under the age of 18 years).
	Emergencies, accidents and incident	Rare	High	Contractors' workers Farmers	The relevant requirements and recommendations for the prevention and management of emergency situations will be developed. Emergency response documentation should contain the contact information in case of emergency situations for each workplace, displayed prominently

Proposed type of sub-projects/activities	Potentially ES risks and impacts	Likelihood	Level of impact	Potentially affected parties and interested parties	Proposed mitigation measures/Remarks
					and accessible to all staff. Contact information for emergency situations should include phone numbers and ways to notify the local authorities and services of what to do in the event of a fire, traffic accident, health emergency, release of hazardous materials, etc. The Contractor will be responsible for taking all reasonable and precautionary measures to ensure that fires do not occur because of the construction works. Open fires at the construction site will be prohibited and the Contractor shall ensure that basic fire-fighting equipment is available at the construction site. The detailed design and construction and rehabilitation of any infrastructure should take due account of natural disaster risks.
	Sexual Exploitation, Abuse and Harassment	Rare	Low	Community members, including the workers employed by agricultural enterprises/individual farmers from Project area Project workers	SEP and LMPs implementation. These risks are estimated to be low and mitigable by complying with the Code of Conduct by all Project's workers and operation of a grievance mechanisms respecting confidential grievances. A suggested Code of Conduct to ensure compliance with requirements to combat Sexual Exploitation, Abuse and Harassment is provided in *Annex* 1 to the LMPs.
	Increased risk of communicable diseases, including COVID-19	Possible	Medium	Community members, including the employes of the farmers	SEP and LMPs implementation. A guide on COVID-19 Considerations in Construction/Civil Works is attached as

Proposed type of sub-projects/activities	Potentially ES risks and impacts	Likelihood	Level of impact	Potentially affected parties and interested parties	Proposed mitigation measures/Remarks
				Project workers	*Annex* 2 to the LMPs.
	Waste generation	Possible	High	Community members, including the employes of the farmers Project workers	Generally, most of the waste that will be generated at this stage is recyclable waste, and their timely and correct disposal will ensure minimal environmental impact. Construction waste, as well as other waste (paper, glass, plastic, etc.) should be sorted into separate containers. Waste disposal sites at the construction site should be thoroughly selected (no in places of possible flooding), and the waste sorting and recycling rules should be prepared in the Contractor ESMP. Permission to construction wastes disposal (the waste which is formed because of construction activity has to be taken out to the dump or processed by the licensed companies).
	Air pollution	Possible	High	Community members, including the employes of the farmers Project workers	Development, implementation, and monitoring of the ESMP based on ESIA and ESMP developed by Contractor for construction stage. The Contractor ESMP will include the measures to avoid or minimize the air pollution, such as establishing the ban on use at construction of the materials and substances emitting cancerogenic and toxic substances in the atmosphere; minimizing an operating time of motor transport engines idling; organizing the passing of control by all vehicles concerning CO emissions and smoke; Establishing the ban on combustion of solid wastes.

Proposed type of sub-projects/activities	Potentially ES risks and impacts	Likelihood	Level of impact	Potentially affected parties and interested parties	Proposed mitigation measures/Remarks
	Water pollution	Possible	High	Community members, including the employes of the farmers Project workers	ESMP development and implementation based on the ESIA. Approval and monitoring of the Contractor ESMP implementation, that will include the mitigation measures such as establishing the ban on unregulated selection of subterranean waters or uncontrollable dumping of industrial waters, cement mortars or any other polluted waters into the soil; ensuring measures for prevention of spill of fuels and oils and other toxic or dangerous substances; establishing the ban on a wash of machines and mechanisms on the construction site; water will be used for the construction process in accordance with the technical specifications of the detail design; household waste waters will be discharged to the existing sewerage network; water consumption will be monitored and measured; Rain-waters will be disposed of from the site through the existing networks.
	Soil pollution	Possible	High	Community members, including the employes of the farmers Project workers	Rules for the registration, handling and storage of hazardous materials, a Soil Pollution Prevention Plan and a Fire Safety Plan should be prepared within the ESMP.
	Asbestos dust pollution	Possible	High	Community members, including the employes of the farmers Project workers	Asbestos dust generated during the dismantling of old roofs of restored/reconstructed buildings, buildings of pumping stations, water pipes can cause a serious health hazard to people living in houses next to or near the construction sites. In such cases, prior to construction work,

Proposed type of sub-projects/activities	Potentially ES risks and impacts	Likelihood	Level of impact	Potentially affected parties and interested parties	Proposed mitigation measures/Remarks
					the contractor shall develop a specific Asbestos-Containing Materials Management Plan.
	Noise and vibration	Likely	Medium	Community members, including the employes of the farmers Project workers	Development, implementation, and monitoring of the ESMP and ESMP developed by Contractor for construction stage. The mitigation measures will include the following: Organization of the work from 7:00 till 18:00 on weekdays; Minimizing operating time of the rustling equipment idling; Using the modern equipment and mechanisms with the low level of noise and vibration; Covering the motor casings of generators, air compressors and other similar equipment; Operating the equipment on the maximum distance from the housing; Providing personal protective equipment (PPE) to all workers.
	Dust	Likely	Medium	Community members, including the employes of the farmers Project workers	Development, implementation, and monitoring of the ESMP and ESMP developed by Contractor for construction stage. The mitigation measures will include the following: Organizing work in a such a way to reduce the quantity of dust by using water to spread the construction site; Providing PPE to workers for dust protection; Installing signs for informing drivers about possible risk connected with dust on the local road; Covering truck bodywork with awnings while transportation of raising dust freights.
	Pollutants emissions	Possible	High	Community members,	Development, implementation, and

Proposed type of sub-projects/activities	Potentially ES risks and impacts	Likelihood	Level of impact	Potentially affected parties and interested parties	Proposed mitigation measures/Remarks
				including the employes of the farms Project workers	monitoring of the ESMP and ESMP developed by Contractor for construction stage. The mitigation measures will include the following: Stopping engines when there are no tasks to perform; Refiling tanks with fuel from Authorized Stations only; Using equipment with law consumption of fuel; Ensuring equipment and vehicle maintenance in good order; Refiling tanks in the morning or in the evenings to avoid evaporation of fuel in the summer warm period.
	Equipment safety	Possible	High	Project workers	Development, implementation, and monitoring of the ESMP and ESMP developed by Contractor for construction stage. All Contractors' equipment must comply with applicable Law #116 of 18.05.2012 on Industrial safety and must hold authorization and competent personnel to manage industrial equipment like as cranes, crane lifts, etc. All equipment must be well maintained and in good state of operation.
	Biodiversity Impacts	Rare	Low	Farmers	Designed sites are located outside the Specially Protected Natural Areas However, possible indirect impacts (through water, atmosphere, etc.). ESIA and ESMP development.
Ways and sites clearance	Loss of vegetation cover	Possible	Medium	Community members, including the employes of the farmers	The Contractor ESMP will include mitigation measures in case of loss of vegetation, such as: avoid all areas with

Proposed type of sub-projects/activities	Potentially ES risks and impacts	Likelihood	Level of impact	Potentially affected parties and interested parties	Proposed mitigation measures/Remarks
					vegetation cover; implement corrective measures, including replanting local or food plant species, after all construction work is completed, planting new vegetation where it has been removed. Construction vehicles must use temporary travel roads built in order to minimize damage to agricultural land and local access roads. Where local roads are used, they will be restored to their original condition upon completion of the work. Compaction around the trees will be done carefully to avoid dripping moisture. Workers will be trained on the issues of environmental protection and the need to avoid felling trees during construction. In addition, if it is necessary to destroy the forest cover along the canals, in each specific case, the issues of remedial landscaping will be studied and planned in coordination with local authorities and supervisory authorities.
Agriculture land use	Soil fertility degradation Erosion[12] Salinisation Agro-chemical contamination [13]	Possible	High	Community members, including the employes of the farmers Project workers	The soil erosion and sedimentation will be limited to activities directly on and near the irrigation system sites. Erosion protection measures may include silt protection fences, hay bales, temporary drainage channels, temporary measures associated with energy dissipation, etc. These measures will be included in the ESMP and Contractor ESMP.

[12] Soil erosion and landslides are a significant problem for Moldova. Erosion is a widespread natural phenomenon due to the relief and climate of the country, which is accelerated by inappropriate land use practices, such as cultivating land on steep slopes; excessive clearing of forests, plants and shrubs; overgrazing; and inadequate irrigation.

Proposed type of sub-projects/activities	Potentially ES risks and impacts	Likelihood	Level of impact	Potentially affected parties and interested parties	Proposed mitigation measures/Remarks
					ESMP and Contractor RESMP implementation and monitoring.
	Inadequate use of pesticides	Possible	High	Beneficiary farmers Community members, including the employes of the farmers	Where feasible, the following alternatives to pesticides should be considered: - Rotate crops to reduce the presence of pests and weeds in the soil ecosystem; - Use pest-resistant crop varieties; - Use mechanical weed control and / or thermal weeding; - Support and use beneficial organisms, such as insects, birds, mites, and microbial agents, to perform biological control of pests; - Protect natural enemies of pests by providing a favorable habitat, such as bushes for nesting sites and other original vegetation that can house pest predators and by avoiding the use of broad-spectrum pesticides; - Use animals to graze areas and manage plant coverage; - Use mechanical controls such as manual removal, traps, barriers, light, and sound to kill, relocate, or repel pests. Detailed program on pest management will be developed in the ESMP.
Equipment and materials transportation to the site	Traffic disruptions due to movement of construction materials	Possible	Medium	Beneficiary farmers Community members, including the employes of the farmers	The Contractors will develop and ESMP for construction stage that will include a traffic management plan (TMP), and road-traffic safety plan to ensure the safety materials and equipment transport for all roads' users, community members and workers.

Proposed type of sub-projects/activities	Potentially ES risks and impacts	Likelihood	Level of impact	Potentially affected parties and interested parties	Proposed mitigation measures/Remarks
				Project workers	The TMP will be coordinated with Municipal Police. Monitoring of the Contractor ESMP implementation. SEP and LMPs implementation, including GRM operation.
	Community health and safety	Rare	Medium	Community members, including the employes of the farms	The Contractors will develop and ESMP for construction stage that will include a TMP, and road-traffic safety plan to ensure the safety materials and equipment transport for all roads' users, community members and workers. The TMP will be coordinated with the Municipal Police. Other suggested measures to be included in the ESM and Contractor ESMP can be: control of the speed and reduction of the traffic intensity, such as speed bumps on the territory of the villages; control of the speed and guide signs, barriers, etc. on dangerous sections of the roads, for example, bends, bridges, etc.; safety barriers and widening of the roadsides on some sections of the roads; measures are needed to minimize the road crash casualties, including the livestock (and local animal species); proposed speed limits in the areas where animals graze; warning signs for the cattle crossing.

Proposed type of sub-projects/activities	Potentially ES risks and impacts	Likelihood	Level of impact	Potentially affected parties and interested parties	Proposed mitigation measures/Remarks
					Monitoring of the Contractor ESMP implementation. SEP and LMPs implementation, including GRM operation.

Component 3 - Strengthening Resilience through Irrigation Services
Operation Stage

Proposed type of sub-projects/activities	Potentially ES risks and impacts	Likelihood	Level of impact	Potentially affected parties and interested parties	Proposed mitigation measures/Remarks
Operation of the irrigation system	Pollutants emissions	Possible	Medium	IWUAs Community members	Monitoring and controlling of air emissions, ensuring proper functioning of existing technological equipment and screen/filter systems, complying conditions of Environmental Authorization for emissions of pollutants (Law #1422/1997 on air protection).
	Noise and vibration	Possible	Medium	IWUAs Community members	Ensuring proper functioning of existing technological equipment, installing insulation and protective screens, complying conditions of Sanitary Authorization for operations.
	Solid wastes	Possible	Medium	IWUAs Community members	Monitoring and controlling of generated solid wastes, contracting of authorized wastes operator.
	OHS issues	Possible	Medium	IWUAs Community members	Ensuring of personnel periodic medical control and workspaces risk assessment.
	Community health and safety	Rare	Low	Community members	Keeping under control aspects which can disturb community for the period of operation.
Using of the agricultural equipment	Equipment safety	Possible	Medium	IWUAs	Ensuring of equipment and EMM testing and certification, receiving of Industrial

Proposed type of sub-projects/activities	Potentially ES risks and impacts	Likelihood	Level of impact	Potentially affected parties and interested parties	Proposed mitigation measures/Remarks
				Community members	Safety Authorization. To involve the qualified staff only.
	Emergency and equipment	Possible	Medium	IWUAs Community members	Keeping under control the emergency situation and risks,and ensuring competent personnel to react in case of emergency.
Cultivation and growth of annual and perennial crops	Inadequate pesticide using	Possible	Medium	IWUAs and their members	Training to the IWUAs' members on pest management. Where feasible, the following alternatives to pesticides should be considered: - Rotate crops to reduce the presence of pests and weeds in the soil ecosystem; - Use pest-resistant crop varieties; - Use mechanical weed control and / or thermal weeding; - Support and use beneficial organisms, such as insects, birds, mites, and microbial agents, to perform biological control of pests; - Protect natural enemies of pests by providing a favorable habitat, such as bushes for nesting sites and other original vegetation that can house pest predators and by avoiding the use of broad-spectrum pesticides; - Use animals to graze areas and manage plant coverage; - Use mechanical controls such as manual removal, traps, barriers, light, and sound to kill, relocate, or repel pests.
Water using	Water pollution	Possible	Medium	IWUAs Community members	Monitoring and controlling of generated wastewaters, ensuring contractual conditions of discharge to the commune sewerage system or operation based on authorization for special water using (Law #272/2011).

5.4. Implementation Arrangements and Responsibilities

Implementation entities: Ministry of Agriculture and food Industry (MAFI) will play the leading role in implementing the proposed AGGRIP, while relying on its departments, sub-divisions, and subordinated agencies to provide technical support for implementation.

The Consolidated Agricultural Projects' Management Unit (CAPMU), directly responsible to MAFI, will carry out a range of fiduciary, coordination and supporting functions to ensure efficient project implementation in relation to the MAFI's obligations on social and environmental safeguards, procurement, financial management and other country-specific requirements such as monitoring and evaluation. CAPMU will assigned a dedicated team for AGGRIP implementation, including the environmental, health and safety and social specialists, according to the Project's implementation needs, after all implementation and institutional arrangements will be finally agreed.

The CAPMU's environmental and social specialists will coordinate all Environmental and Social Assessment activities and to ensure adequate implementation of ESMF and ESMP requirements, including SEP, LMPs and RPF provisions. Overall, the role of the environmental and social specialists are, but not limited to: (i) provide assistance to the project's beneficiaries to determine the environmental and social risks and impacts that can be generated by proposed activities supported under the Project as well as prescribe the required mitigation actions to be taken; (ii) conduct screening and ensure that due environmental and social work (ESIAs/ESMPs) are prepared for the proposed investments; (iii) properly implement the SEP , LMPs and RPF/RAP, (iii) monitor and report on a regular basis the effects on the environment and on social issues that financed activities may provoke and ensure that mitigation is carried out. The environmental and social specialists also must regularly and selectively visit subprojects and ensure proper environmental and social monitoring for Project activities.

CAPMU will include the provisions of the ESMF (SEP, GRM, LMPs and RPF) in the following documents:

- Project Operations Manual;
- Bidding and procurement documents;
- Construction and supervision contracts for individual subprojects, both in the specification and in the bill of quantities; Contractors will be required to include the cost of implementation of environmental and social activities in their financial proposals;
- Project ESMP and will ensure that ESMF and ESMP requirements are included in the Contractors' ESMPs.

MAFI's AIPA would play a key role in the project's set-up for the implementation of the matching investment grant schemes. AIPA would manage the dispensing, monitoring, and implementation supervision of project resources provided as matching grants to eligible beneficiaries. AIPA would apply rigorous review of documentary evidence and monitor the execution of the grants (and ensuing investments) to ensure efficiency and compliance with agreed procedures, particularly in relation to eligibility of receipt of grants and eligibility of expenditures.

The Sustainable Development Account Moldova (SDA) will provide support in the implementation of *Component 3*, in order to ensure swift and efficient implementation of the activities related to the rehabilitation of the CISs.

For the activity planned under the Component 3 of the AGGRIP, a key role will be played by Water Users Associations for Irrigation (WUAs). According to the Law #171 of 09.07.2010 regarding water user associations for irrigation, modified in 2020, the WUAs are the following responsibilities:

- administration and operation of the irrigation and/or drainage system within its service area and the distribution of irrigation water to the members of the Association;
- maintenance, rehabilitation and improvement of the irrigation and/or drainage system within the service area and the execution of construction and reconstruction works, as necessary;
- extracting water directly from a river or reservoir, in accordance with water legislation, to distribute it within the service area;
- setting limits on water consumption for irrigation and collecting payments for irrigation and/or drainage;
- procurement, replacement, operation and maintenance of irrigation and/or drainage equipment;
- training the members of the Association regarding irrigation techniques, aspects of irrigated agriculture, water saving methods and new technologies;
- the Association can distribute water for irrigation, within the limits of availability and on a contract basis, to people who own or use irrigable land within the service area and who are not members of the Association.

Beneficiaries and Contractors. The planned investments and activities will be carried out by Contractors/Consultants selected through the tendering process. They should operate in full compliance with national environmental and social legislation and with the ESMF and ESMPs requirements. Further, the contractors are obliged to follow regulative requirements of the national law and WB's ESSs and requirements related to traffic safety, occupational health and safety; fire safety; environmental protection; community health and safety and stakeholders engagement. All ESMPs' associated activities will be financed by the contractors. The contractors will also be requested to designate a person in charge of environmental, social, health and safety issues and for implementing the ESMP. The consolidated roles and responsibilities of a main project stakeholders are presented in *Table 12* below).

Prior Statement regarding the beginning of the works on the site and specific management Plans. According to national regulations on civil works, for all construction activities, the contractor shall make a prior statement regarding the beginning of the works on the site and shall inform the employer of the beginning of the works on the site. The prior statement regarding the beginning of the works on the site shall be also submitted to the territorial labour inspectorate at the location of the works to be carried out, at least 30 days before their beginning. The content of the prior statement regarding the beginning of the works on the site shall be made available on the site, in a visible place, before the beginning of the works and shall be updated whenever changes occur. For the construction period, the Contractor will develop the *Operational Management Plans* necessary for the construction works on the sites. The Contractor will design an Execution Plan, which will include the phases of execution, commissioning, operation and subsequent reconstruction and use in accordance with the provisions applicable in the Republic of Moldova. The Execution Plan will be approved by the employer. In addition, the Contractor will prepare the following specific plans:

1. The Contractor ESMP for the construction works to be carried out - as per requirements and specifications of the ESMP developed at Project level;
2. Own LMPs, including OHS Plan;
3. Traffic Management Plan to be agreed with the local Traffic Police;

4. Emergency and Response Capacity Plan (includes situations of accidental pollution, emergency and first aid equipment, list of useful emergency telephone numbers, etc.);
5. Solid Waste Management Plan, including hazardous wastes; and,
6. Site Reconstruction Plan.

Requirements for raw materials, energy and fuels to be used for project activities. The raw materials used to carry out the planned activity should be in accordance with the quality requirements for constructions, Law #721 of Feb 02, 1996 on the quality in constructions.

Table 12: Specific Roles and Responsibilities in ESMF (including SEP, LMPs and RPF), ESIA and ESMP implementation process

Responsible Party	Responsibilities
World Bank	a) Review, acceptance and disclose ESMF, SEP, ESCP on WB's official website; b) Review the site-specific ESMPs for all subprojects; c) Review labor management procedures; d) Conduct implementation support and supervision missions in order to ensure that the Project is following WB ESS requirements.
CAPMU's Environmental and Social Specialists	a) Prepare and submit for Bank review and approval, and implement the ESMF activities, including LMPs, SEP and GRM; b) Disclose the ESMF and ESCP; c) Prepare ESMP according to ESMF, Submit ESMPs to the WB for prior review, Perform the quality control and review of ESMP; d) Disclose ESMP and incorporate ESMPs into bidding documents; e) Assign field specialists for the environmental and social monitoring; f) Perform inspections of the implementation of ESMP by the construction contractor, make recommendations and decide whether additional measures are needed or not; g) In case of non-compliance, ensure that the contractor eliminates the noncompliance and inform the WB about the noncompliance; h) Hold consultation meetings, and prepare and distribute leaflets or other informative documents to inform communities, on Project, and its impacts and construction schedule; i) Set up a two-level GRM, monitor and address grievances related to the project under specified timelines; j) Manage the grievance redress mechanism, including the grievances received from project workers; k) Provide guidance to the construction contractor and engineering supervision firm; l) Summarize the environmental and social issues related to project implementation to WB in regular progress reports; m) Be open to comments from affected groups and local environmental authorities regarding environmental aspects of project implementation. Meet with these groups during site visits, as necessary; n) Coordinate and liaise with WB supervision missions regarding; environmental and social safeguard aspects of project implementation.
IWUAs, LPAs and other beneficieries	a) Disclose the ESMF, ESCP, SEP, LMPs documents on their websites and place de summary information notes on their information boards; b) Provide Technical data to CAPMU for preparing bidding document; c) Provide Technical data for Contractor to prepare detailed design; d) Conduct with Contractor and State Authorities (environment, sanitary and firefighting representatives) inspection on construction locations; e) Attend at public consultation and provide information to all interested parties; f) Manage GRM at local level;

Responsible Party	Responsibilities
	g) Be open to comments from affected groups and local environmental authorities regarding environmental aspects of project implementation; h) Collaborate with CAPMU in monitoring and reporting the Project performance and progress.
Contractor Specialist assigned with Environment and OHS issues	a) Develop for operational ESMP and own Labor Management Plan, TMP, etc. b) Implement ESMPs on site, if required revise the ESMP together with CAPMU; c) Implement LMPs; d) Monitor site activities on a regular basis (daily, weekly monthly etc.); e) Prepare the ESMP progress reports for the review of CAPMU.
District/local controlling authorities, including Environmental, Sanitary and Fire Agencies)	a) Elaborate and issue Urbanism Certificate for Design; b) Elaborate and issue Informative Urbanism Certificate; c) Decide if it is necessary Environmental, Sanitary and Firefighting Permits for Design Stage; d) Checking and verifying detailed design, based on issued Urbanism Certificate for Design, by and authorized institution of Republic of Moldova; e) Monitoring implementation of issued Permits; f) Control if ESMP is implemented correctly.
Construction Supervision Engineer/Consultant	a) Supervising and monitoring of all contract provisions that must be ensured and respected; b) Providing an oral or written instruction to the Contractor; c) Controlling and checking of compliance with the instructions given on any matter related to the Contract; d) Issuing to the Contractor (at any time) instructions and additional or modified Drawings which may be necessary for the execution of the Works and the remedying of any defects, all in accordance with the Contract; e) Performing regularly site visits on construction sites and prepare conformity reports, etc.

5.5. Monitoring and Reporting

Environmental and social monitoring during the implementation of subprojects should contain the information on the key environmental and social aspects of subprojects, their impact on the environment, the social consequences of the impact and the effectiveness of measures taken to mitigate the consequences.

Monitoring of the implementation of E&S measures will be carried out by CAPMU's specialists.

Monitoring of the social part will be carried out on an ongoing basis by the social specialist of the CAPMU to ensure that there are no unforeseen impacts during the construction and rehabilitation works, resettlement process if any, livelihoods of people, vulnerable groups. Monitoring will also cover the issues of health and labor. If some problems are identified, the mitigation measures will be proposed or the separate corrective action plans.

To ensure the implementation of the environmental measures specified in the ESMF and ESMP to be developed, monitoring should be carried out as follows:

- *Visual monitoring* – at the construction stage of sub-projects. CAPMU specialists should constantly monitor the implementation of the ESMP by Contractors. This will be achieved through monthly inspections of Projects for construction of the new facilities

under Component 2 of the Project, and construction and rehabilitation of irrigation infrastructure. For monitoring, it is recommended to use special checklists, which can be compiled based on the ESMP with attachment of photos from the monitoring site.

- *Instrumental monitoring of environmental quality* such as air and water quality, or soil pollution/erosion/degradation. Considering the types of activities that will be implemented within the framework of this Project, instrumental monitoring may not be carried out. However, in case of grievances of violations or inconvenience by the local population, instrumental measurements of air or water quality should be carried out by a contracting organization through the hiring of a certified laboratory. In case of exceeding national standards, the contractor is obliged to take additional measures to reduce the detected excesses to comply with the standards.

In addition, World Bank experts will also visit certain sites periodically to monitor compliance with ESSs and ESMP.

For sub-projects related to construction/rehabilitation, it is recommended that the contractor, with the assistance of the CAPMU, develop a format (checklist) for on-site inspection to optimize the environmental supervision process prior to commencement of work. The format could be in the form of a checklist listing the mitigation measures to be implemented at construction sites, the status of their implementation, and some explanation of the implementation status, as needed. On a monthly basis, contractors will submit summary reports on the implementation of the ESMP. The list of measures that are checked by the environmental and social specialists when visiting the site must comply with the measures specified in the ESMP. Information on monitoring results at facilities under construction/rehabilitation should be submitted to the CAPMU monthly. Based on the reports received by the environmental and social specialists, CAPMU will prepare a summary report on the implementation of the ESMF, ESIA and ESMP, which will be included in the progress reports to be submitted to the WB (the sample of proposed monitoring plan is presented in *Table 13* below) as described in the project ESCP.

The CAPMU shall monitor the implementation of this Framework, both at overall Project level and individual subproject level. The CAPMU shall ensure that the requirements of the site-specific ESMPs and environmental permit are included in employer's requirements for the construction works. Within their usual monitoring activities, CAPMU will perform monitoring (including on-site monitoring) (*Annex 6* to this document) to ensure that Contractors comply with their contractual obligations.

It is the responsibility of the Contractor to ensure the proper execution of works, according to prescribed measures and in line with entity and international standards. Therefore, the Contractor should appoint a person responsible for environment protection (for example environmental engineering / specialist or similar) and social consultant with adequate experience to be responsible for the implementation of all environment protection requirements and ESMP implementation. The same for social specialist. The appointed persons shall ensure compliance with environmental and social standards and is responsible for environmental protection according to the ESMP, in line with clearly defined tasks and responsibilities, which include, among others: works are executed in line with good construction practices, waste is adequately managed at the construction site, environmental protection issues are communicated with the supervising body and the local community. The works are supervised by the nominated supervising body, which controls that the activities are taken in line with the environmental management plan.

Preparation of site-specific ESMPs for priority investments will be undertaken by CAPMU specialists. They will also be responsible for the initial screening of the Project to determine risk categorization and other environmentally related documentation during the project execution. In

the PIU, a dedicated environmental specialist will be in charge of this process, as well as environmental monitoring and reporting. Details of these arrangements will be fully specified in the Project Operational Manual.

Contractors' labor management compliance with national legislation requirements related to labor and safety at work would be monitored based on the basis of Reports on Compliance of Conditions of Work with the ESS 2, which the contractors shall submit to the PIU and Supervision Consultant (external consultant) on a semi-annual basis. The format of the report is provided in LMP.

The PIU shall establish and maintain records on information and engagement of all stakeholders including records of grievances in accordance with the SEP.

The PIU will report on regular basis to WB on subproject screening, approval and monitoring results.

Table 13. Monitoring and reporting plan

Parameter	Responsibility	Location	Frequency / Timing	Monitoring Method	Management Plan detailing Monitoring Requirements / Relevant Legislation - Standard	Reporting
Pre-construction/design stage						
RAP (Resettlement Action Plan preparation and Stakeholder Engagement Activities)	MAFI and CAPMU	All Project areas	Pre-Cons.	Documentation	Expropriation national legal framework ESS5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement ESS10: Stakeholder Engagement and Information Disclosure	Biannual Reports
Permission Regarding Non-Agricultural Use of Agricultural Areas	CAPMU and IWUAs	Location of the activities under component 3	Pre-Cons.	Documentation	Soil Conservation and Land Use Laws	Biannual Reports
Determination of the camp site, access roads and excavation storage areas and obtaining the necessary permissions	CAPMU and Contractors	Components 2 and 3	Pre-Cons.	Documentation	ESIA Report Expropriation related Laws ESS1: Assessment and Management of Environmental and Social Risks and Impacts ESS3: Resource Efficiency and Pollution Prevention and Management ESS5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement ESS10: Stakeholder Engagement and Information Disclosure	Biannual Reports
Environmental Management (Waste Contracts, additional environmental & social studies, Preparation of Site-specific management	CAPMU	Office	Pre-Cons.	Documentation, Visual observations at site	Environmental Laws ESS1: Assessment and Management of Environmental and Social Risks and Impacts ESS3: Resource Efficiency and Pollution Prevention and Management Pollution Prevention Plan	Biannual Reports Site-specific management plans and procedures

Parameter	Responsibility	Location	Frequency / Timing	Monitoring Method	Management Plan detailing Monitoring Requirements / Relevant Legislation - Standard	Reporting
plans and procedures, Environmental and Social Monitoring Activities)						
Construction stage						
Soil Pollution	Contractor	Construction sites	During the construction and Post construction	Soil sampling and analysis (by accredited and competent firms)	Pollution Prevention Plan Contractor ESMP implementation ESS3: Resource Efficiency and Pollution Prevention and Management	Biannual Reports
Noise	Contractor	Construction sites/ Closest settlement in case of grievance	Every 23months or if there is a grievance	Noise level measurements (by accredited and competent firms)	Contractor ESM implementation ESS3: Resource Efficiency and Pollution Prevention and Management	Biannual Reports
Dust	Contractor	Construction sites / Closest settlement in case of complaint	Every 3 months or if there is a complaint	Dust, PM10 and PM2.5 sampling (by accredited and competent firms)	ESMP and Contractor ESMP implementation ESS3: Resource Efficiency and Pollution Prevention and Management	Biannual Reports
Vehicle Emissions	Contractor	Construction equipment and vehicles	During the periodic maintenance of vehicles	Recorded with exhaust emission measurement devices	Contractor ESM implementation	Biannual Reports
Waste water	Contractor	Construction Site	Daily	Visual observations at site	ESIA and ESMP implementation	Biannual Reports
Surface Water Quality	Contractor	Baseline measurement points determined within the scope of ESIA Studies	Every 6 months	Sampling and analysis (by accredited and competent firms)	ESIA and ESMP implementation ESS3: Resource Efficiency and Pollution Prevention and Management	Biannual Reports
Groundwater Quality	Contractor	The points determined by contractor before the construction	Every 6 months	Sampling and analysis (by accredited and competent firms)	ESIA and ESMP implementation ESS3: Resource Efficiency and Pollution Prevention and Management	Biannual Reports

Parameter	Responsibility	Location	Frequency / Timing	Monitoring Method	Management Plan detailing Monitoring Requirements / Relevant Legislation - Standard	Reporting
Excavation Waste	Contractor	Project area and Excavation Storage Areas	Continuously during excavations	Documentation and visual observations at site	Contractor ESMP implementation ESS3: Resource Efficiency and Pollution Prevention and Management	Monthly & Quarterly Monitoring Reports
Topsoil	Contractor	Project Area and Excavation Storage Areas	Continuously during excavations	Documentation and visual observations at site	Contractor ESMP implementation ESS3: Resource Efficiency and Pollution Prevention and Management	Monthly & Quarterly Monitoring Reports
Solid Waste and Packaging Waste	Contractor	Project working areas during construction work	Daily	Documentation and visual observations at site	Contractor ESMP implementation, including Waste Management Plan and Pollution Prevention Plan ESS3: Resource Efficiency and Pollution Prevention and Management	Monthly & Quarterly Monitoring Reports
Non-Hazardous and Inert Wastes	Contractor	Project working areas during construction work	Daily	Documentation and visual observations at site	Contractor ESMP implementation, including Waste Management Plan and Pollution Prevention Plan ESS3: Resource Efficiency and Pollution Prevention and Management	Monthly & Quarterly Monitoring Reports
Hazardous Wastes	Contractor	Project working areas during construction work	Daily	Documentation and visual observations at site	Contractor ESMP implementation, including Waste Management Plan and Pollution Prevention Plan ESS3: Resource Efficiency and Pollution Prevention and Management	Monthly & Quarterly Monitoring Reports
Storage and transportation of fuel, oil and hazardous materials	Contractor	Project working areas during construction work	Daily	Documentation and visual observations at site	Labor Code and Regulation on Classification, Labeling and Packaging of Substances and Mixtures ESS4: Community Health and Safety Emergency Preparedness and Response Plan	Monthly & Quarterly Monitoring Reports
Labor and Working Conditions	Contractor	All project working areas	Monthly	Documentation, Training Records, Percentage of local people, women etc. groups among employees (if any)	Labor Code ESS2 Labor and Working Conditions Contractor LMP implementation, including Employment and Training Plan	Monthly & Quarterly Monitoring Reports

Parameter	Responsibility	Location	Frequency / Timing	Monitoring Method	Management Plan detailing Monitoring Requirements / Relevant Legislation - Standard	Reporting
OHS Management	Contractor	All project working areas	Daily	Documentation, Training Records, HS Audits	Labor Code ESS2: Labor and Working Conditions Contractor LMP implementation, including Occupational Health & Safety Management Plan	Monthly & Quarterly Monitoring Reports
Community Health and Safety (Number of community safety activities implemented, number of community safety trainings performed or information provided)	Contractor	Project working areas during construction work	Monthly	Monitoring at site, Training Records or information provided	ESS4: Community Health and Safety Contractor ESMP implementation, including Community Health and Safety Management Plan	Monthly & Quarterly Monitoring Reports
Traffic (Transport) Management (number of grievances about traffic problems, number of traffic training provided to workers)	Contractor	Office, project working areas during construction work	Monthly	Documentation	ESS4: Community Health and Safety Contractor ESMP implementation, including Community Health and Safety Management Plan and Traffic Management Plan	Monthly & Quarterly Monitoring Reports
Land and Livelihood Effects (loss of income due to land expropriation, pasture loss, loss of agricultural land, etc.)	Contractor, CAPMU and IWUAs	Residential areas directly or indirectly affected by the project	Monthly	Regular information / consultation with the public affected by the project, field reports prepared on RAP implementation	ESS5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement ESS10: Stakeholder Engagement and Information Disclosure Resettlement Action Plan Stakeholder Engagement Plan	Monthly & Quarterly Monitoring Reports
Operation stage						

Parameter	Responsibility	Location	Frequency / Timing	Monitoring Method	Management Plan detailing Monitoring Requirements / Relevant Legislation - Standard	Reporting
Labor safety (OHS Plan)	IWUAs and beneficiary farms	Farms and irrigation infrastructure	Periodically per procedures and timing specified in national norms and standards	Checking out the OHS procedures, training records, PPE ensured and special safety signage in place	Regulation on Assessment and Management of Environmental Noise Site specific Pollution Prevention Plan to be prepared	
Solid Waste and Packaging Waste	IWUAs and beneficiary farms	Farms and irrigation infrastructure	Daily	Monitoring at site, waste records and reporting	Contract for specialized company in the waste collection and management	
Water using	IWUAs and beneficiary farms	Farms and irrigation infrastructure	Daily		Water using authorization	
Environmental issues for pollutant emissions	IWUAs and beneficiary farms	All project areas	Weekly	Checking out the Environmental Authorizations for pollutant emissions and respected conditions	Law on environmental protection	-

5.6. Budget

The budget necessary for the ESMF implementation, including sub-projects screening, ESIAs/ESMPs preparation and ESMPs implementation monitoring and other relevant activities are the responsibilities of MAFI/CAPMU/SDA. At the same time, in order to ensure successful ESMF implementation, a series of capacity building activities are necessary for which the project has to provide adequate funding. The estimated budget for ESMF implementation and proposed capacity building activities and trainings is around $ 170,000. The planned activities and budget to ensure its implementation are presented in the *Table 14* below.

Table 14. Tentative plan on trainings and capacity buildings activities

Activities	Planned Budget (USD)
ESMF implementation, including sub-projects screening, ESIAs/ESMPs preparation and ESMPs implementation monitoring and other relevant activities*.	100,000
Trainings and capacity building, including screening of grant proposals for E&S risk; monitoring and reporting on environmental and social performance of subprojects; stakeholder mapping and engagement; occupational health and safety; labor working conditions and associated inspections; screening of assets for land acquisition and/or resettlement impacts. RAP administration and implementation.	70,000
Total	**170,000**

**This planned budget does not include the SEP implementation. The budget for the stakeholders engagement activities is provided in the SEP separately attached document.*

5.7 Grievance Mechanism

Addressing grievances raised by individuals/groups/entities affected by WB-funded Projects is an important component of managing Project risks. A *Grievance Redress Mechanism* (GRM) can serve as an effective tool for early identification, assessment, and resolution of grievances and therefore for strengthening accountability to beneficiaries. The GRM serves as an important feedback mechanism that can improve Project impact and mitigate the risks. The GRM mechanism will be available to Project stakeholders and other affected parties, enabling them to submit questions, comments, suggestions and/or complaints and provide any form of feedback on all Project-funded activities.

Grievance Redress Mechanism at Project Level

CAPMU will develop and manage a dedicated GRM during AGGRIP's components and activities implementation in accordance with the provisions of the WB's ESS10 and of this SEP. The GRM will address the all Project related grievances, including those received from Project's workers, direct affected parties, indirect affected communities' members and grievances related to the resettlement. During the Project implementation, it will be ensured equal and nondiscriminatory access to the GRM, and special attention will be given to the disadvantaged/ vulnerable groups, people who are less informed.

Considering the Project design and the different and specific components, the grievances can be solved using a two-level mechanism: at local and at Project level.

Local level will include a dedicated Project group for grievances resolution at local level. The group can be created by LPAs or IWUAs and can include three members: (i) representatives of the LPA/Mayor's office (i.e. the mayor or cadastral engineer); (ii) one IWUA's representative and (iii) one community representative (i.e. local NGOs representatives, teachers, informal leaders, postal workers, etc.). For the Component 2, the local group can include two LPAs' representatives or two community representatives, as the Mayor's Office decides. The group at the local level will benefit throughout the execution of the construction/rehabilitation works from assistance and informational, methodological and other support from CAPMU, so that any grievances of the affected persons/parties can be resolved amicably in a short period of time.

At local level can be solved the grievances received from the directly affected land owners and community members related to the following aspects, but not limited to:

- lack of information and the occurrence of situations of uncertainty regarding the Project and the planned investments;
- impacts of the construction/rehabilitation work, such as noise, dust, restricted access, water and soil contamination etc.;
- community health and safety;
- unsatisfactory land restoration after the execution of the works;
- resettlement aspects: including unsatisfactory amount of compensation; delay in payment of compensation; affecting a larger area of land than planned or informed at design preparation.

If the project investments will imply resettlement, this local group will be trained to solve the resettlement related grievances. This group will examine the grievances related to resettlement, will carry out the field visits and will discuss with complainant and other involved parties if necessary. This group will can reply directly to complainant if the corrective measures can be undertaken at the local level or the general procedures/regulations/legal framework regarding the resettlement have been respected and the grievance is unfounded. If the grievance needs the revision of the initial decision on compensation or the grievance cannot be solved at the local level, this grievance will be directed to the second GRM level.

Project level will include a dedicated Project group for grievances resolution created from the representatives of the Project's implementation entities. The number of members will be determined. This group will examine and solve the all Project related grievances, including grievances received from Project's workers (direct and contracted). Some of the possible situations in which grievances can be submitted by the affected parties and will be resolved by this group are: inadequate behavior of the Contractor's employees; management of grands to be provided; review of the compensation amount and others.

These groups are a temporary body, established for the purpose of permanent dialogue with the people who consider themselves affected by the implementation of the Project. The groups will be active from the date of establishment until the end of the activities within the Project. The groups created within the Project for grievance redress do not replace the judicial way of examining disputes. These groups are intended to serve as a forum for amicable consultation of potentially affected persons to avoid litigation. If the affected person is not satisfied with the resolution of his grievance, he can initiate the procedure for examination and resolution of a complaint according to the national legal framework.

The following channels through which Project affected parties and interested parties can make complaints/ suggestions/ grievances regarding Project-funded activities:

- By Email: capmu@capmu.md;
- In writing: 50, Capriana st., of. 215, Chisinau, MD-2005;
- Dedicated phone number: (+373) 68055297;
- Other: verbal grievances addressed locally should be recorded in writing by Mayor's office secretariat.

> *Grievances may be submitted anonymously. All anonymous grievances and complaints should be addressed and recorded as well as other grievances and complainant. Confidentiality must be ensured in all cases, including the case when the person submitting the appeal choses anonymity.*

The Project treats sensitive and confidential complaints, including those related to Sexual Exploitation and Abuse/Harassment (SEA/SH) in line with the WB ESF Good Practice Note on SEA/SH. For GBV, and particularly for SEA/ SH complaints, there are risks of stigmatization, rejection and reprisals against survivors. The GM will assist GBV survivors by referring them to GBV Services Provider(s) for support immediately after receiving a complaint directly from a survivor.

We use this SEP to provide contacts where to receive support: SEA/SH green-line 0 8008 8008. This is a green-line for women and girls suffering from domestic abuse, victims of trafficking in human beings, victims of sexual exploitation. The list of GBV service providers/NGOs is available www.stopviolenta.md[14].

The emergency line 112 service also will redirect all calls coming from women-victims of domestic violence to the Trustline for Women and Girls, in the cases when the beneficiary refuses police intervention or is in a state of crisis and requires emotional support and psychological counselling. The redirection will also happen when the beneficiaries will need information about their rights and the services available to them. This is possible since December 2020, when La Strada and 112 emergency service have signed an agreement of collaboration, under which La Strada have inclusively offered training support and capacity building for the 112 operators in the field of domestic and sexual violence.

Grievance Records and Documentation

Each grievance should be assigned with an individual reference number and appropriately tracked and recorded actions are completed. The all grievances submitted will be registered / entered by CAPMU's social specialist in to a unique register/database. The directly received grievances by local group will also be sent to CAPMU's social specialist for registration in the unique register. CAPMU's social specialist will be the grievance focal point of this Project.

A simple database will be developed under the Project to manage and monitor the grievances. The documentation on grievances will include:

- the name and contact details of the complainant;
- the date and nature of the complaint;
- the group charged with addressing the complaint;
- any follow up actions taken;
- the proposed resolution of the complaint; and

[14] https://stopviolenta.md/index.php?do=feedback

- how and when relevant Project decisions were communicated to the complainants.

For the verbal grievances, it will be suggested to the complainant to file a written grievance/complaint or to use the number phone and email address appointed for Project grievances in order to be directed to relevant staff/groups for appropriate grievance resolution.

Grievance Closure

The timeline for response to a grievance will not exceed 14 working days. The term can be justified extended up to 20 working days (the complainant will be informed about extension).

A grievance will be "closed" when a resolution satisfactory to all parties has been reached. In certain situations, however, it is possible to "close" a grievance even if the complainant is not satisfied with the outcome. This could be the case, for example, if the complainant is unable to substantiate a grievance, or if there is an obvious speculative or fraudulent attempt.

In such situations, the efforts to investigate the complaint and to arrive at a conclusion will be well documented and the complainant will be advised of the situation.

If the complainant is not satisfied by the response or the proposed solution, he/she may appeal to court.

Communication on the GRM

The GRM will be presented and explained in the meetings with the affected or potentially affected parties, in the public consultations, in the leaflets, it will be placed on the informational boards/panels and on the implementation entities websites.

Besides, all information on GRM will be provided on request.

The training on Project GRM operation will be conducted for local level groups. The training will approach the subjects on recording, examination, response to the grievances and documentation on the grievances.

Monitoring and Reporting on GRM implementation

CAPMU's social specialist will monitor the examination, resolution and closure of the received grievances at both levels, updating the grievance database accordingly. The GRM implementation results will be reported by CAPMU to WB semiannually. The summary information on GRM operation will be placed on CAPMU website and submitted to the interested parties at request.

World Bank's corporate Grievance Redress Service

The. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel, which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit https://www.worldbank.org/en/projects-operations/products-and-services/grievance-redress-service. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

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Law on Green Spaces of the Urban and Rural Localities #591 of 1999
Law on occupational safety and health #186-XVI of July 10, 2008

Annexes

Annex 1. Baseline Data and Information (Project Area Context)
Annex 2. E&S Screening Checklists
Annex 3. Templates of E&S Assessment instruments
Annex 4. Pest Management Issues
Annex 5. Report on Consultation on the Draft ESMF with Interested and Affected Parties
Annex 6. Project Activity Report Template

Annex 1. Baseline Data and Information (Project Area Context)

1.1. Overview of the status of the country's environment

Located in Eastern Europe, Moldova is bordered on West and South by Romania and on the North, South, and East by Ukraine. Most of its territory lies between the area's two main rivers, the Nistru and Prut. Nistru river forms a small part of Moldova's border with Ukraine in the Northeast and Southeast, but it mainly flows through the eastern part of the country. The Prut River forms Moldova's entire western boundary with Romania. The Danube touches the Moldovan border at its southernmost tip and forms the border for 200m. Moldova's climate is moderately continental: the summers are warm and long, with temperatures averaging about 20 °C (68 °F), and the winters are relatively mild and dry, with January temperatures averaging -4 °C (25 °F). Annual rainfall, which ranges from around 6 centimeters (2.4 in) in the north to 4 centimeters (1.6 in) in the south, can vary greatly; long dry spells are not unusual. The heaviest rainfall occurs in early summer and again in October; heavy showers and thunderstorms are common. Because of the irregular terrain, heavy summer rains often cause erosion and river silting.

Most of Moldova's territory is a moderate hilly plateau cut deeply by many streams and rivers. Geologically, Moldova lies primarily on the deep sedimentary rock that gives way to harder crystalline outcroppings only in the north. Moldova's hills are part of the larger Moldovan Plateau. The northern landscape of Moldova is characterized by gently rolling uplands (up to 300 m or 984 ft, in elevation) interlaced with small flat plains in the valleys of the numerous creeks (at 150 m or 492 ft elevation). These hills, which have an average altitude of 240 meters (787 ft) and a maximum altitude of 320 meters (1,050 ft), are divided into the Northern Moldovan Plateau and the Dniester Plateau, and continue further occupying the northern part of the Chernivtsi oblast in Ukraine. To the south are located the Bălți Plain and the Middle Prut Plain, with an average of 200 meters (656 ft) and a maximum altitude of 250 meters (820 ft). Originally forested, it has been extensively de-forested for agriculture during the 19th and 20th centuries. In contrast to the region to the north and south, which is more slant, this area is referred to as plain, although it has relief very different from that of flatland, and vegetation different from that of the steppe.

The overall status of the environment is being presented at yearbook, developed by the Environmental Protection Inspectorate. The data is being analyzed by environmental media (air, water, soil) and key environmental performance indicators.

1.1.1. Air

The latest data on air pollution level within the Republic of Moldova confirms that the emission of air pollutants is a leading negative externality because of its direct impact on the health of a large part of the country's population.

Based on latest data the level of air pollution is indicated in the *Table 1* below.

Moldova is an agrarian-industrial country, and the pollution of the airspace from fixed and mobile sources is not uniform for the whole territory. The degree of pollution of the urban airspace is higher than the rural one due to the existence of major industrial enterprises in the cities, the thermo-energy and thermal objectives and the intense traffic of the car transport. Atmospheric air pollution is a

problem that requires activities to determine the quality of atmospheric air and to prevent the harmful effects of economic activities on natural ecosystems.

Table 1: Released and capture of pollutants released by stationary sources of atmospheric air pollution of economic agents

Years	Volume of pollutants at released, thousands of tons	Pollutants released into the air, thousands of tons	Captured pollutants	
			thousands of tons	In % of total volume of pollutants at discharge
2012	130,1	14,8	115,3	88,6
2013	210,3	15,6	194,7	92,6
2014	147,9	15,0	132,9	89,9
2015	156,0	15,8	140,2	89,9
2016	111,2	15,1	96,1	86,4
2017	126,4	13,8	112,6	89,1
2018	143,6	15,2	128,4	89,4

Source: https://statistica.gov.md/public/files/publicatii_electronice/Mediu/Resurse_naturale_2019.pdf

The main sources of atmospheric air pollution in the Republic of Moldova are presented by the production of electricity at thermal power stations, by the heating systems of the houses, the traffic of cars, rail, air and industrial activity. The most important pollutants resulting from these processes are oxides of carbon, sulfur, nitrogen; suspended particles; formaldehyde; benzo-(a)-pyrene, etc. (see the *Table 2*).

Table 2: Released of pollutants into the air by stationary sources of economic agents by ingredients, thousands of tons

Item	2012	2013	2014	2015	2016	2017	2018
Total	**14,8**	**15,6**	**15,0**	**15,8**	**15,1**	**13,8**	**15,2**
Solid	3,5	3,4	3,1	2,8	2,6	2,3	2,4
Gaseous and liquid	11,3	12,2	11,9	13,0	12,5	11,5	12,8
Sulphur dioxide	1,1	0,9	0,7	0,7	0,8	0,8	0,7
Carbon monoxide	4,3	4,5	4,5	4,8	4,6	4,1	4,6
Nitric oxide	1,6	1,7	1,9	2,1	1,8	1,7	1,7
More	4,3	5,1	4,8	5,4	5,3	4,9	5,8

Source: https://statistica.gov.md/public/files/publicatii_electronice/Mediu/Resurse_naturale_2019.pdf

The biggest source of air pollution, however, remains fuel burning. Due to impurities present in the fuel, through smoke (incomplete combustion) or through oxides of nitrogen and sulfur, the air is polluted significantly.

1.1.2. Water resources

The most important rivers are the Dniester and the Prut cross-border rivers with the length of the watercourse on the territory of the Republic of Moldova of 660 km and 695 km respectively.

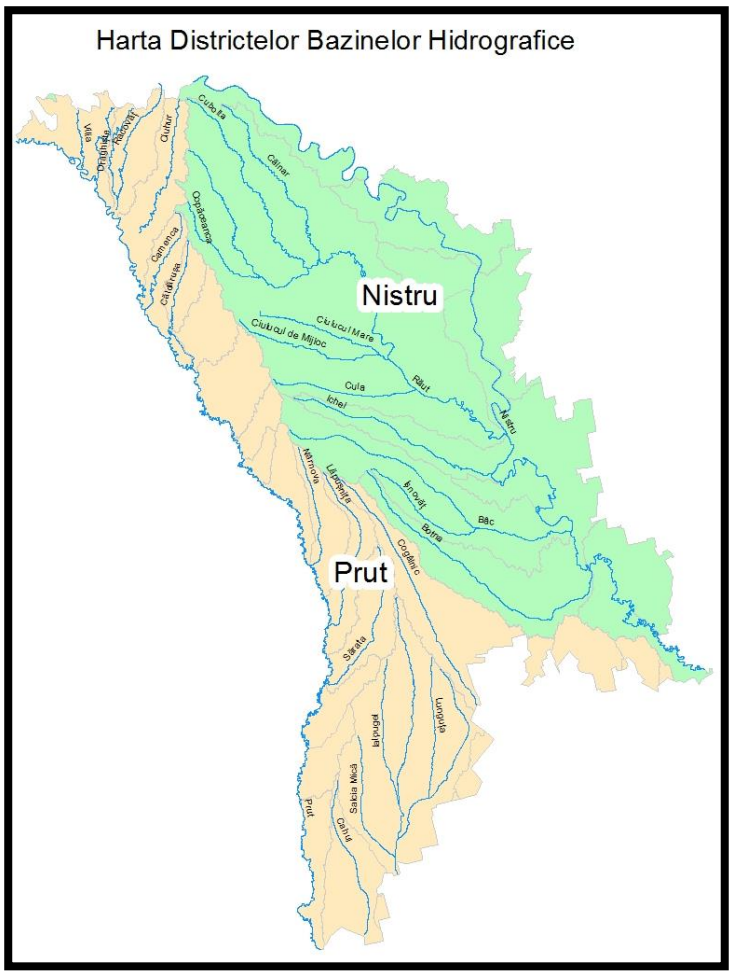

Figure 1: Main river basins of the Republic of Moldova

The next river with importance as internal watercourse is Răut, which has a length of 286 km. The largest natural lakes are located on the river Prut (Beleu - 6.26 km^2, Dracele - 2.65 km^2, Rotunda - 2.08 km^2) and on Dniester (Sălaș - 3.72 km^2, Roshu - 1.16 km^2, Old Dniester - 1.86 km^2). The largest artificial reservoirs are Costesti-Stinca on the Prut River (59 km^2), Dubasari on Dniester (67.5 km^2), Ghidighici on the Bâc river (6.8 km^2). The map of the main river basins – Nistru and Prut is presented in the *Figure 1*.

As was mentioned above in the Republic of Moldova surface waters are grouped in the Dniester and Prut river basins which are transborder water sources, and include inland rivers and natural and manmade reservoirs. The biggest surface water source is the Dniester River having a total annual volume discharged of about 10.7 km^3. The second biggest river is Prut, with an average annual volume discharged of about 2.9 km^3. All other inland rivers flowing on the territory of the country have an average annual volume discharged of about 1.22 km^3. The basin of the Dniester River with its tributaries occupies circa 67% of the country's territory, and of the Prut River circa 24%. Regarding groundwaters the main water reserves are located in deep confined aquifers. There are approximately 7,000 boreholes for ground water withdrawal: their total flow (annual groundwater resources) accounts for approximately 1.3 km^3, including 0.7 km^3 of drinking water. The natural recharge capacity of the confined aquifers is limited, and there is a risk of overexploitation[15].

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.

During the last years, it was noticed a declining trend in the water use. The water consumption in 2020 decreased by 9%in comparison with the year 2018, due to the several reasons one of the main being the decrease of about 3% of renewable water resources. About 7-8% of the total water catchment is lost during transportation due to leaks, water losses from open canals, as well as due to worn/out dated infrastructure. This amount is between 55-77 million m3 of water.

[15] UNDP, 2009. Climate change in Moldova. Socio-economic impact and policy options for adaptation. National Human Development Report 2009/2010: 224 pp.

> The total water resources available for use in Moldova are estimated at a volume of 5.585 million m^3/year, of which, for irrigation purposes, could be used about 2.000 mln m^3. This volumes will be sourced as follows: Dniester - 1.217 mln m^3; Prut - 400 mln m^3; Danube (Cahul River) - 60 mln m^3; internal waters (small rivers and reservoirs) - 262 mln m^3; groundwater (if quality allows) - 61 mln m^3.

Water consumption for the agricultural sector was decreasing until 2017. In 2018 there is a small increase due to the increase in irrigation by recovering the infrastructure in this area. Increasing water use in agriculture is a beneficial moment only when these increases are achieved through modern methods and tools based on efficient management of water resources. By applying good agricultural practices, efficient water consumption in agriculture can be achieved, which would mean greater water resources available for other uses and other sectors[16].

1.1.3. Soil cover

In the Republic of Moldova, the land and soils resources represent 3.384 million hectares of having the following structure by category of use: agriculture purpose; land that belongs to localities; reserve fund; lands for industry, transport, communications and other special purposes; lands of the forestry fund and for nature protection purposes and lands of water funds. The distribution of land as well the variations suffered in the last years is presented in the *Table 3* below.

Table 3: Land use on 1 January 2019, thousands of ha

Land Use	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Lands total	3384.6	3384.6	3385	3385	3384.6	3385	3385	3384.6	3384.6	3384.7
Lands for agricultural purpose	2007.6	2008.7	2009	2015	2024.2	2027	2028	2026.5	2028.3	2073
Lands that belong to localities	311.6	312.1	312.2	312.8	313.1	314.8	314.3	314.8	314.3	314.0
Reserve Fund	469.9	466.7	466.4	461.2	452.4	449.0	446.3	449.0	446.3	399.3
Lands for industry, transport, communication and other special purposes	58.7	58.9	58.9	59.6	59.4	58.7	58.8	58.7	58.8	59.6
Lands of the forestry fund and for nature protection purposes	450.0	450.9	450.6	450.4	450.4	450.5	451.7	450.5	451.7	452.1
Lands of water funds	86.8	87.3	87.6	86.1	85.1	85.1	85.2	85.1	85.2	86.7

Sources*: http://ipm.gov.md/sites/default/files/2019-07/ANUAR%20-%202018; http://ipm.gov.md/ro/node/580*).

Agriculture represents the dominant land use in Moldova. By far the most significant land used is arable land for annual crop production. Much of this arable land sits on highly fertile and productive black chernozem soils, which cover 75 percent of the country, especially in the northern districts. High quality soil resources, along with various microclimates, support a wide array of annual and perennial crop production across the country.

1.1.4. Climate conditions and climate change

[16] Environmental Agency, Total water use in the Republic of Moldova (2000-2018), http://mediu.gov.md/ro/content/c3-utilizarea-total%C4%83-apei-%C3%AEn-republica-moldova-2000-2018, accessed on 11.01.2021

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. Increasingly erratic weather patterns have resulted in loss of life and income through rising food and energy prices. The most vulnerable sectors are agriculture, human health, water resources, forestry, transport and energy.

The climate of the Republic of Moldova is moderately continental, characterized by relatively mild winters with little snow, long warm summer and low humidity. The average annual air temperatures vary between 8-12ºC, and amount of precipitations, respectively between 450-900 mm per year.

According to information provided by State Hydrometeorological Service (SHS) 2019 year was characterized by a high thermal regime and with the annual amount of precipitation within the norm. The average annual air temperature in the territory was +10.6 ... + 12.6 ºC (Figure 1), exceeding the norm by 2.1-3.2 ºC (Figure 7 bellow) and on a large part of the territory it is reported for the first time in the entire observation period.

The temperature trends in last three decades are statistically significant for summer and annual temperatures (at a 95% confidence level) and for spring (at a 90% level). Further evidence of the acceleration of regional warming can be seen in the fact that seven years among the ten warmest in the history of instrumental observations in Moldova have been in the last two decades.

The precipitation picture is more complex. There is a change in the direction of some trends from 1887-1980 to 1981-2008: from a decrease to an increase in spring, and from an increase (about 6 mm per decade) to a decrease in the last thirty years (above 13 mm per decade) in summer. For autumn-winter and annual precipitation the previous slight increase is continuing. In 2019, the annual amount of precipitation that fell on the territory constituted 380-700 mm, or 80-120% of the norm, only isolated their amount did not exceed 340-370 mm (70-75% of the norm). During the autumn season on a large part of the territory continued to maintain a deficit of rainfall. The precipitation quantity during the season on 65% of the territory was 50-85 mm (40-75% of the norm), and in isolation (on 20% of the territory) their amount did not exceeding 35-45 mm (30-35% of the norm), which in the autumn period is reported on average once in 10-15 years. Significant deficit of precipitation was reported in November, when their monthly amount on 60% of the territory did not exceed 3-10 mm (10-30% of the monthly norm). The map bellow shows the quantity of precipitations for 2019 year and in comparation with the norm of precipitations.

The Report on Moldova Water Security Diagnostic and Future Outlook developed by World Bank states that the outcomes of various climate models generate different effects on temperature and rainfall patterns, the overall direction is that temperatures will rise, and precipitation will become more variable, likely with a drying effect in the growing season[17].

Over the last 132 years of measurement, the average temperature in the Republic of Moldova increased by more than 1.2°C. The natural disasters induced by climate change, such as frosts, hail and droughts, happen more and more frequently and regularly. They generate annual economic losses of over $US 120 million or about 2% of the Gross Domestic Product.

> In the last 20 years from 2000 to 2020 the Republic of Moldova has already experienced 6 years (2000, 2003, 2007, 2012, 2015, and 2020) with the devastating droughts. The worst drought in Moldova occurred in 2007, it caused almost $987 ml in damage, with the 78% of affected

[17] World Bank: Moldova: Water security Diagnostic and future outlook, https://openknowledge.worldbank.org/handle/10986/34809, accessed on 11.01.2021

> territory. In 2012, 80% of Moldova's territory experienced drought, causing $200.5 ml in damage.

Beside above-mentioned sectors, the Climate Change Impact will be felt in other fields as well. The profile developed in 2017 by USAID emphasized that for the water resources the risks are mainly to decrease surface flows by 16–20 percent from 2020–2029. This is especially concerning given Moldova's limited groundwater reserves. Even without climate change, water shortages are expected in the next several decades due to increased demand. Regarding agriculture field Climate change and variability already impact the sector, with 3 percent of GDP lost annually on average as a result of drought, heavy rains and flooding. Increased demand for irrigation combined with reduced water supply overall are likely to lead to irrigation shortages, impacting irrigated crops as well. Higher temperatures and drought impact the livestock sector (primarily poultry, cattle and sheep) directly by compromising animal health, and indirectly by reducing feed availability and quality. Higher temperatures and variable rainfall also adversely affect production of feed crops and pasture across all regions. This trend is likely to continue as projections indicate a 4–7 percent decline in pasture productivity by 2040.

Climate change already imposes a number of direct and indirect effects on health outcomes in Moldova. Rising air temperatures exacerbate heart conditions and severe circulatory and respiratory diseases. Acute respiratory infections are already the second highest cause of death in children under five. Shocks to agricultural production, such as floods and droughts, have important consequences for health in terms of food security and malnutrition, particularly in rural communities, where 21 percent of households were food energy deficient in 2013.

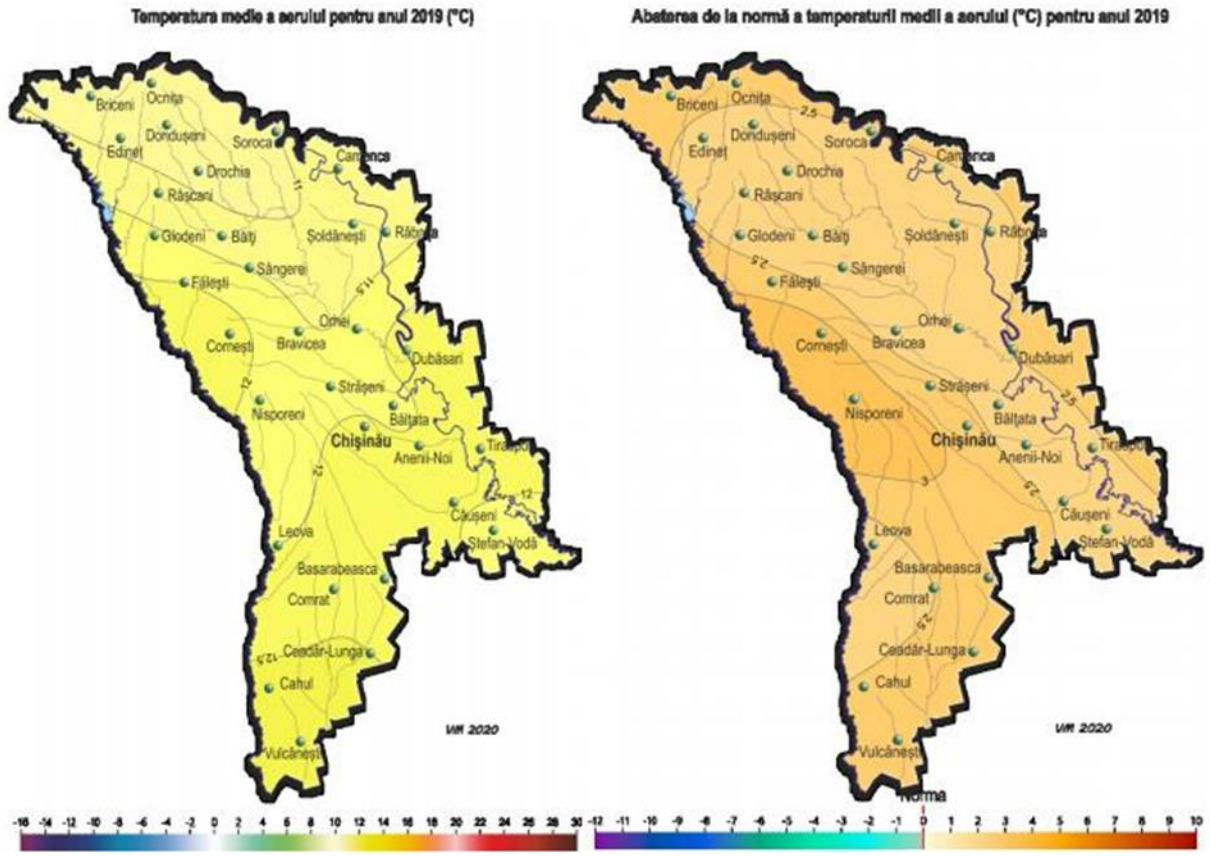

Figure 2: Average annual air temp. & deviation from normal annual average air temp., °C

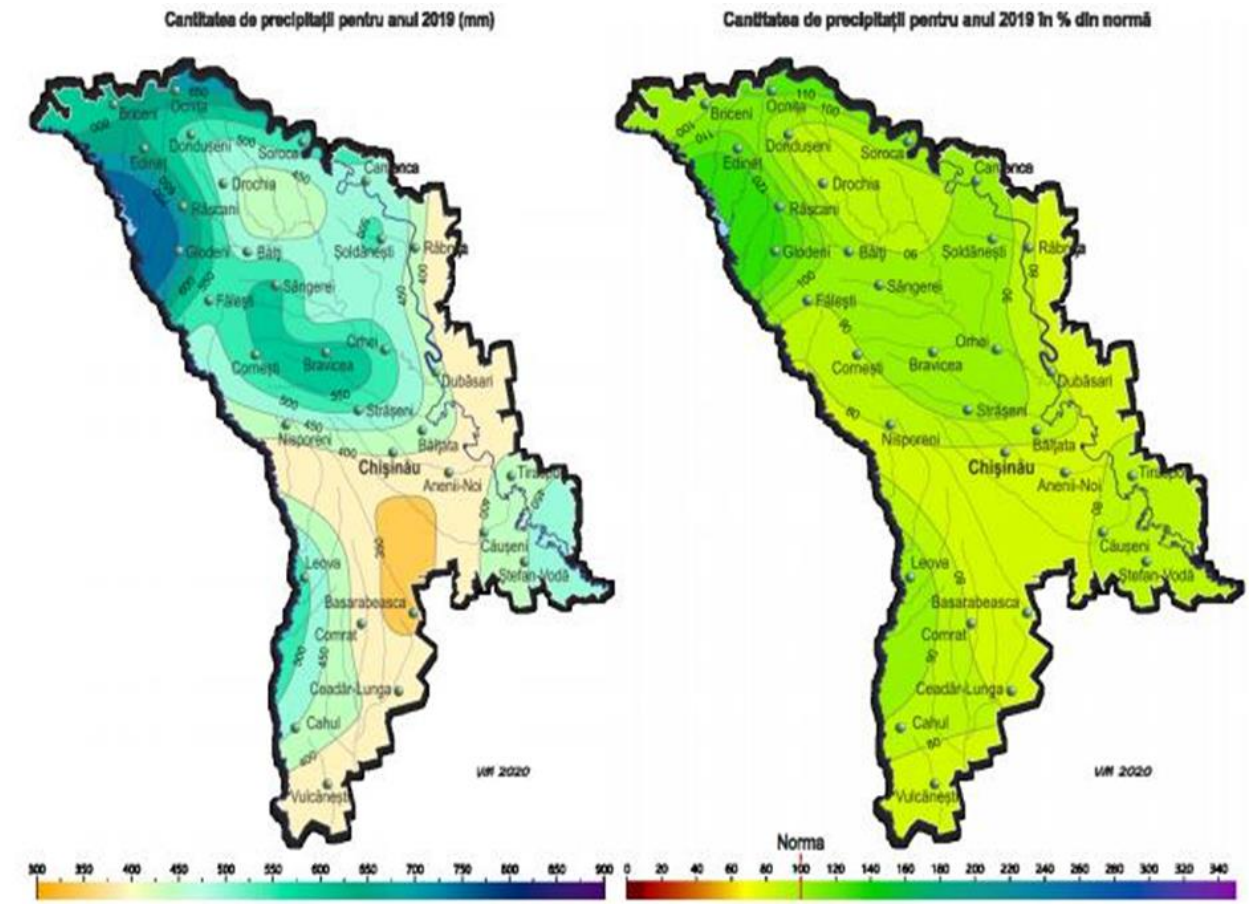

Figure 3:The amount of precipitation for 2019 (mm) and as a percentage of the norm

For the forestry even small changes in temperature and precipitation affect future forest growth and regeneration. Higher temperatures induce faster rates of water loss, leading to drier conditions that slow growth rates, and in severe cases, cause tree loss. Higher temperatures also tend to decrease the efficiency of water use by plants. In Moldova, climate change could lead to a decrease of beech, durmast and oak forests in favor of semi-arid forests and dryland pastures more suitable to hotter, drier conditions. By 2040, 15–25 percent of trees in the northern region will likely be water stressed. Hornbeam and ash will be the most vulnerable, with ash biomass growth estimated to decrease by 20–40 percent by mid-century[18].

1.1.5. Waste Management

The National Waste Management Strategy of the Republic of Moldova 2013-2027 states that waste management is still a problematic issue in the country, that should be better organized and for which legislation should be improved.

The waste management consists in the following activities: collecting, transportation, waste treatment, recovery, and disposal.

The responsibility for the waste management activities lies with its generators under the principle „the pollutant pays" or on its producers, under the principle „*the responsibility of the*

[18] USAID, Climate Change Risk Profile Moldova, *https://www.climatelinks.org/sites/default/files/asset/document/2017_USAID%20ATLAS_Climate%20Change%20Risk%20Profile%20-%20Moldova.pdf*, accessed on 11.01.2021

producer". The local authorities are responsible for the organization of waste collection and disposal systems and therefore appropriate rates should be set in order to ensure the financing of these activities.

The production of municipal waste is influenced by a great number of factors and the most important are: the income of the population, the behaviour of consumers, increase of packaging materials and the demographic situation. Research of the World Bank shows that along with the increase of the level of income of the population the rate of waste generation per capita increases as well, which in rural areas usually is 0.3-0.4 kg/capita/day and 0.9 kg/capita/day or higher in urban areas. The increase in the number of supermarkets and the growth of the Gross Domestic Product (GDP) per capita have caused the purchase of packed products, and therefore, the produced waste. Demography also influences on the production of waste, and as a rule, the inhabitants of the urban areas produce more waste than those from the rural areas. Currently, the most widely used method of household waste treatment is landfilling, which often is a major source of soil and groundwater pollution. In this context, sanitation of settlements and urban waste management is an important objective of the local government structures.

The specialized services for waste collection and disposal do not yet cover the full territory of the country and exist in municipalities, in all district centers. In these localities, the waste management is being organized in a planned way through these services, which work on a contract basis with individual generators and legal entities, but overall this system covers only 70-90% of the total of municipal waste generators in the urban area.

A small part of the rural localities (148 villages), especially those in the close vicinity of the district centers are served by their waste collection and disposal services.

1.1.6. Biodiversity

Biodiversity in the Republic of Moldova is influenced by the country's geographical location, at the intersection of three biogeographical natural zones:

- *The Central European zone*, represented by the Central Moldovan Plateau (maximum height of 430 m), which features the biggest forests in the country (Codrii), where important spontaneous communities of plants and wild animals are preserved.
- *The Eurasian zone*, represented by forest steppe and steppe regions.
- *The Mediterranean zone*, represented by fragments of xerophytic forest steppe in the south of the country.

The flora of the Republic of Moldova comprises 5,568 species of plants (2,044 of which are higher plant species and 3,524 of which are lower plant species), along with relict tertiary and quaternary species and several very rare sub-endemic species. Over 30 species of ligneous plants and 200 species of medicinal plants provide an important living for the rural population, while around 700 spontaneous flora species are fodder plants that provide feed for wild animals and livestock. The second edition of the Red Book of the Republic of Moldova includes 117 species of rare, vulnerable, and endangered plants. Also, natural ecosystems ensure suitable conditions for 1,357 species of fungi, including 557 species of mucoromycetes in forest ecosystems. Only 70 of the total number of fungal species are edible. The second edition of the Red Book of the Republic of Moldova includes nine species of fungi and 16 species of lichens.

Diversity in the animal kingdom can be explained by the variety in the landscape, which features, within relatively short distances, various types of ecosystems (forests, water, steppe, grassland,

rocks) and morphological structures (hollows, terraces, narrow valleys etc.). The Republic of Moldova borders the Balkan region and forms a transition zone between continental Asian steppe fauna and European forest steppe fauna. There are about 15,000 species of animals in Moldova, of which 474 species are vertebrates (75 species of mammals, 281 species of birds, 14 species of reptiles, 14 species of amphibians and 90 species of fish), the other species being non-vertebrates (mainly insects).

> The third edition of the Red Book of the Republic of Moldova includes 116 species of rare, vulnerable, and endangered animals. The most endangered are reptiles, with eight of the totals of 14 species existing on the territory of the country being included in the Red Book.

The Botanical Garden Institute of the Academy of Sciences of Moldova has a plant genetic fund of about 11,000 species, comprising 2,517 tropical and subtropical plants, 1,150 ornamental flowering plants, 2,000 ligneous plants, 350 non- traditional fodder plants, 300 medicinal plants, and 350 aromatic plants.

In recent years, the plant genetic fund of the Botanical Garden Institute has been supplemented with 1,456 species, including 170 ligneous plants, 601 flowering plants, 439 tropical and subtropical plants, 148 medicinal and aromatic plants and 98 fodder plants. The herbarium of the Botanical Garden Institute and various universities have around 320,000 samples of plants from various regions.

The zoological collections of the Republic of Moldova include about 182 species of birds and 4,700 species of insects: as well as collections of 270 species of fossil plants and 500 species of fossil animals (1,500 specimens).

Regarding the State Natural Protected Areas (SNPA) the total area of state protected natural areas is 189,400 ha (5.61 percent of the country's territory) and includes 312 objects and complexes. The average area of a protected natural area is 607 ha. The national legal framework establishes 12 categories of state protected natural areas. Between 2009 and 2013, existing areas were evaluated and mapped, and 18 new state protected natural areas were proposed. One important step in the process of expanding these areas was the approval in 2013 of legal acts on the establishment of the first national park in the Republic of Moldova – Orhei National Park.

The country has five scientific reserves - Codru, Iagorlic, Prutul de Jos, Plaiul Fagului and Padurea Domneasca (presented in the Figure 9 below); one national park (Orhei); one biosphere reserve (the Lower Prut, established in 2017); 130 natural monuments; 63 nature reserves; 41 landscape reserves; 13 resource reserves; two arboreta; three wetlands of international importance (Lower Nistru, Unguri-Holosnita and Lower Prut Lakes); 32 multifunctional management areas; and 21 landscape architectural monuments.

The "Moldsilva" Agency manages about 50 percent of the total area of state protected natural areas, the other 50 percent being managed by local public authorities. The regime of the protected areas is secured by territorial entities subordinated to the "Moldsilva" Agency, while local public authorities do not have management plans for state protected natural areas. The protection of cultural and archaeological objects located in state protected natural areas, and any related activities, are undertaken in coordination with the MECR.

The main threats on biodiversity faces multiple challenges in the area of biodiversity conservation, as some species are disappearing, and others are becoming endangered and vulnerable. A significant indicator in this context is the number of rare and endangered species included in the Red Book of the Republic of Moldova: 55 species in the first edition; 242 species

in the second edition; and 427 vulnerable, endangered, and critically endangered species in the third edition, published in late 2014.

Natural resources are often used irrationally, and no activities are implemented with the aim of preserving biodiversity. Current conditions (climate change, habitat fragmentation, pollution, the disappearance of species etc.), the paradigm of socioeconomic development in the Republic of Moldova, as well as limited institutional capacities, the insufficient enforcement of legislation in this area, the insufficient mainstreaming of biodiversity conservation issues into sectors of the national economy, and insufficient appreciation on the part of the public of the value of biodiversity, all require a more realistic approach to the role of biodiversity in the national economy and increased efforts to ensure biodiversity protection.

The most serious reasons for biodiversity loss are:

- the illegal and irrational exploitation of biodiversity.
- direct threats to biodiversity; and
- insufficient institutional capacity and underdeveloped legislation.

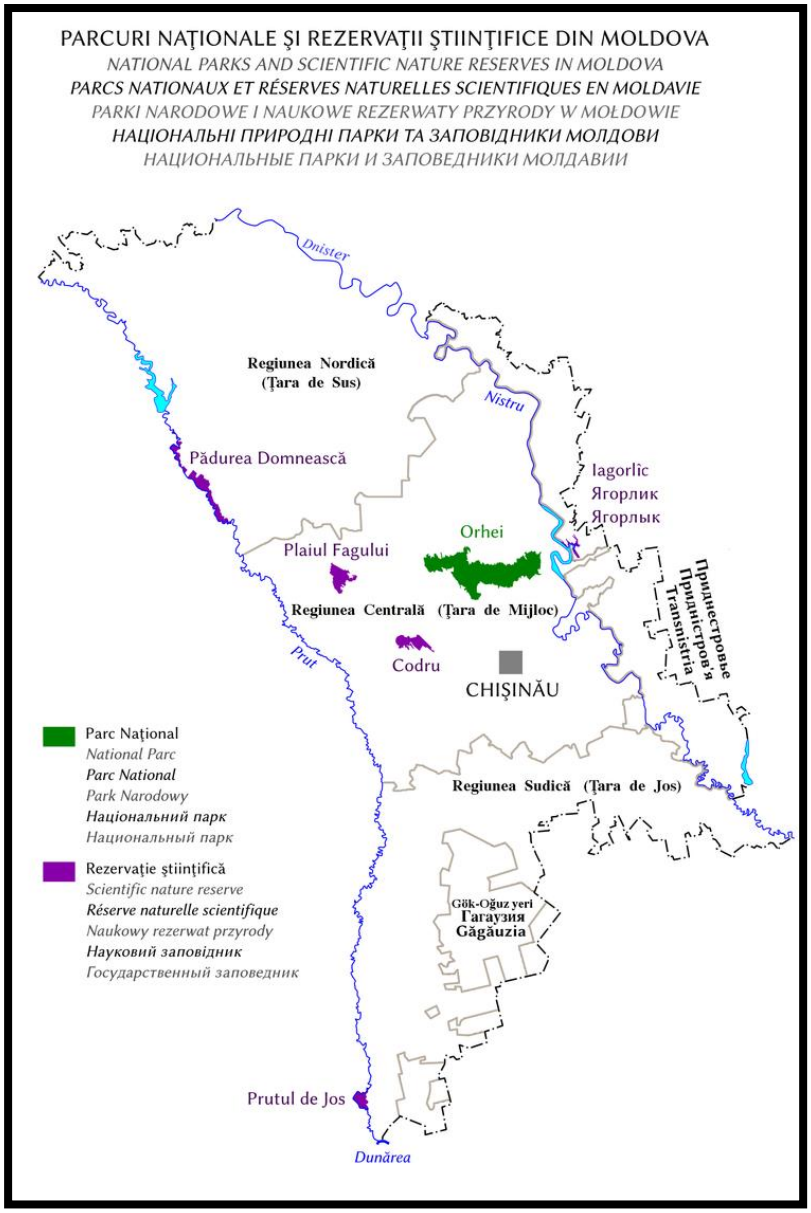

Figure 4: National Parks and Scientific Reserves in Moldova

Insufficient appreciation of the value of biodiversity is another reason for biodiversity loss. Economic and industrial activities and national investment programmes do not generally take into consideration eventual impacts on biodiversity or the need for environmental conservation. However, financial losses may be high if biodiversity conservation is not considered.

The deficit in energy resources also significantly limits the potential of natural ecosystems. Assessments have shown that about 80% of local communities use wood and other alternative biomass sources (plant residues from orchards, vineyards, gardens, and other organic waste).

The low level of environmental awareness and education among the population is a further factor contributing to the unsatisfactory status of biodiversity in Moldova.

1.2. Baseline Socio-Economic Characteristics of the Project Area

1.2.1. Demography

According to the National Bureau of Statistics[19], the estimated number of the population with habitual residence (resident population) of the Republic of Moldova on 01.01.2021 was 2626.9 thousand persons (final data), and the population on 01.01.2022 was 2 640.0 thousand persons, these being provisional data. The birth rate decreased, reaching 11.2 live births per 1000 inhabitants in 2021, compared to 11.7 live births per 1000 inhabitants in 2020. The total fertility rate in 2021, it decreased compared to the previous year and is 1.73 children per woman. Although the total fertility rate in the Republic of Moldova is relatively high, it does not reach the level of replacement of generations of 2.1 children born alive to a woman during her reproductive age. The mortality rate increases insignificantly, amounting to 17.4%, compared to 15.4% in 2020. The value of "male mortality" in 2020 was 106 male deaths to 100 female deaths. The natural increase in 2019 had negative values (-4.4 thousand people) and a different evolution for women and men. One of the reasons for the increase in mortality in 2021 was the Covid-19 pandemic. The Ministry of Health reported that in 2021, 6,755 people died from this cause, of which 3,139 were men and 3,616 were women.

Most of the population (56.9%) lives in rural areas – 2015.2 thousand inhabitants compared to 43.1% - 1527.5 thousand inhabitants in urban areas[20]. The ethnic composition of the population of Moldova observed during the 2014 census reveals that Moldovans/Romaniansrepresent82.1% of the total population, Ukrainians – 6.6%, Gagauz – 4.6%, Russians – 4.1%, Bulgarians – 1.9% and other nationalities a percentage of 1.0% of the total country's population. The Romani represent 0.3% of the total population about 9,323 persons[21]. The Gagauz living mostly in southern Moldova (ATU Gagauzia, Taraclia and Basarabeasca districts). In ATU Gagauzia live predominantly Gagauzs (83.8%) and Bulgarians (4.9%), the Moldovans are only 4.7%.

Migration is a complex and intense phenomenon in the Republic of Moldova. Almost a quarter of the population of the Republic of Moldova currently lives abroad either temporarily, or for a long time. In 2017 (the last year for which the migration related data could be estimated for the moment), almost 110 thousand migrants (returned) came to Moldova, and almost 160 thousand emigrants left the country. They formed a negative net migration of approximately 50 thousand persons in that year[22].

1.2.2. Agriculture characteristics

Agriculture has always been one of the leading sectors in the Moldovan economy, largely for natural reasons: the rich soil resources, biological diversity, good climate, and geographical conditions.

Moldovan agricultural sector is composed of two major sub-sectors: the corporate sector

[19] The National Bureau of Statistics – www.statistica.gov.md
[20] NBS, 2019, https://statbank.statistica.md/
[21] However, regional experience shows that Censuses tend to underestimate the real number of Roma population. Negative stereotypes attributed to the Roma by majority population, ethnic discrimination in the labour market, education, health care, and other social spheres, injustices and discrimination actions that the Roma had to face in the past are among the key reasons for denying Roma ethnicity - Roma in the Republic of Moldova, UNDP, 2007.
[22] NBS, Information Note on the reviewed number of population of the Republic of Moldova, including data on the international migration - https://statistica.gov.md/newsview.php?l=ro&idc=30&id=6409 21 2019, https://statbank.statistica.md/

comprising large companies and the individual sector that includes peasant farms and household land in private property. Small farms, especially subsistence and semi-subsistence farms generate a limited surplus of high value-added crops (fruits, nuts, grapes, vegetables, potatoes) that are mostly sold in open air agricultural markets.

Plant growing has a dominant position in the structure of agricultural production; its share in the total agricultural production is about two-thirds. The share of animal production has declined in the 1990s as a reaction to increased energy prices and liberalization of the market.

On 01.01.2018, 120 commercial dairy farms were operating, with a total number of 10,168 milking cows, which represented only slightly more than 9% of the total number of milking cows. Another 91% of the dairy cows were kept in households by individual animal keepers with an average of 1-2 cows. The main breeds of bovine animals raised in the Republic of Moldova are those for milk and milk and meat such as Moldovan black spotted, Holshtein and Simmental. At the same time, some positive trends are observed in the dynamics of the development of cattle farms. Thus, starting with 2014, despite the decrease in the total number of cattle, including cows, the number of animals in agricultural enterprises increased from 12.3 thousand in 2014 to 19.1 thousand in 2018 or by about 55%.

Dynamics of milking cows herd follows broadly the same trends. Thus, the herd of milking cows kept in the agricultural enterprises after a short phase of growth in the years 2013-2016 has entered in a reduction phase since 2017, so that in 2018 the number of milking cows in these enterprises reached 5.4 thousand.

The total cow milk production has been reduced from about 1,503 thousand tons in 1990 to about 443 thousand tons in 2017, or by more than three times. At the same time, the average annual milk production per cow after a decline in 1990 - 2000 has been steadily rising and is now close to the 1990s level. The largest share of the milk production (around 95% in 2017) is provided by households. It should be noted that the volume of households' milk production is continuously decreasing from 576.4 thousand tons in 2010 to 418.4 thousand tons in 2017 or by 38%.

A vulnerable point of milk production in households is the collection of milk and its transport as a raw material for milk processing enterprises. Livestock production in rural households also creates serious environmental pollution problems, including pollution of air and drinking water sources. At the same time, milk production in households represents an important source of income for a great part of the rural population. In this context, it is very important to stimulate investments in the creation of cattle farms near the villages, which will allow the use of modern technologies for maintenance, nutrition and exploitation of animals and thus significantly increase their productivity and obtain a competitive product on the domestic, as well as on export markets.

1.2.3. Impacts of Climate Change on the Agriculture

Agriculture is a mainstay of Moldova's economy. Despite the highly fertile soils, agricultural productivity and yields are constantly threatened by natural hazards such as drought, hails, frosts, severe storms, which multiply already existing processes of land degradation and erosion and volatile market conditions.

Water resources for agriculture are scarce, and irrigation infrastructure is almost inexistent among small-scale farmers. Projections on climate change, manifested through increased rainfall variability and overall drop in rainfall, show an increased demand for irrigation water and a decline in available surface water resources.

Climate change is also expected to reduce crop yields across the three agro-ecozones by 10–30% by 2050 (relative to 2013 yields), considering no adaptation measure and given the current water challenges. However, higher temperatures could shift grape cultivation towards the country's northern border and may improve grape quality, by increasing sugar content, which could significantly boost wine quality[23].

The COVID-19 pandemic, economic recession, and another drought in 2020 highlight the necessity to invest in water supply services, as well as irrigated agriculture to support future jobs, economic recovery, food security, and health outcomes

Climate, along with soils, is the main natural resource of Moldova, determining its agricultural productivity and ecosystems services, which in turn support the livelihoods of about half of Moldova's population, especially in the conditions of its transition economy and current world economic and financial crisis. The country is located in a temperate continental climate zone, slightly modified by the proximity of the Black Sea and the intrusion of warm wet air from the Mediterranean. At times, there are northern cold-air surges. Climatic seasons are clearly defined with a short and soft low-snow winter and a long summer, sometimes very hot and dry. Annual mean air temperature for the country as a whole average 9.3 °C, ranging across the country's territory from 7.8 to 9.9 °C34. Being rich in warmth, Moldova has limited precipitation, which decreases from 615 to 485 mm from northwest to southeast. On the whole, Moldova is located in an insufficiently wet zone which results in a high frequency of droughts, which negatively affect its economy. For example, only between 1990 and 2007, nine droughts were registered in the country. A record catastrophic drought, which affected 75-80 per cent of the country area and had very severe consequences for national economy, was observed in 2007. The 2010-2020 was also very warm years. The 2020 summer was with droughts on the entire territory.

There is potential to advance the sustainable use of Moldova's water resources for better economic outcomes. As a percentage of total renewable resources, Moldova's water withdrawals are low, less than 5 percent. Water use has declined during the past two decades as a result of decreasing irrigation water use and other economic changes. However, water is central to the economy, driving higher-value agricultural productivity, powering industry, and contributing to the country's energy production through thermal cooling and small-scale hydropower[24].

Agriculture remains an important pillar of the economy, representing 10 percent of gross domestic product (GDP) in 2019. Its value for jobs is significant, employing a third of Moldova's labor force. Agricultural produce and food products account for 45 percent of exports, and most exports still comprise commodity crops, such as oil seeds and cereals. Moldova's largely rainfed agriculture remains vulnerable to droughts, with volatile outputs that expose the economy and affect rural livelihoods. Despite challenges, Moldova's agricultural sector can be a motor for diversification and growth in the future. Since 2010, the area cropped, and the harvests of fruits and vegetables have increased. Although Moldova is transitioning toward a more diversified economy, opportunities from a higher-value agriculture are not fully realized. This is partly the result of underinvestment and poor management of state-owned irrigation schemes, most of which are now dysfunctional. Moldova has both high riverine flood risk and drought risk because of the interannual and intra-annual variability of its precipitation patterns and its mostly rainfed agriculture sector.

Employment. According to the results of the annual research "Earnings and labor costs in 2019"[25],

[25] https://statistica.gov.md/print.php?l=en&idc=168&id=6742

the average number of employees was 625.2 thousand people, 2% (or 12.2 thousand people) more than in 2018.

The distribution of employees by economic activities reveals that most employees were engaged in the activities of:

- industry - 17.8% of the average total number of employees;
- wholesale and retail trade; maintenance and repair of motor vehicles and motorcycles - 16.7%;
- education - 15.3%;
- health and social assistance - 9.7%.

Women predominate among employees (326.9 thousand, or 52.3% of the average number of employees). The share of women and men differs significantly by economic activities and is largely influenced by the profile of economic activities. Thus, women are mainly found in the activities:

- health and social assistance - 81% of the average total number of employees in this activity;
- education - 76.7%;
- financial and insurance activities - 70.1%;
- accommodation and catering activities - 65%.

Men predominate in the activities:

- constructions - 86.8% of the total employees in this activity;
- agriculture, forestry and fishing - 73%;
- transport and storage - 71.8%;
- administrative service activities and support service activities - 64.9%.

In 2019, there were 46,900 unemployed persons[26]. In terms of gender, more men (27,600) was unemployed than women (19,300) in 2019. The highest share in unemployed persons makes people unemployed for less than six month (32,000 persons). People from rural area accounts for the highest share of unemployed persons, 26,000 unemployed persons from rural area comparative to 20,000 from urban[27]. The South Region has the higher unemployment rate compared with the total population rate and the North region lower (*Table 4*).

Table 4: Employment and unemployment rate (%), by regions 2019

Item	Employment rate	Unemployment rate
Total population	40.1%	5.1%
North Region	42.5%	4.3%
Center Region	33.6%	6.3%
South Region	31.3%	5.8%

Source: Statistical Regions are different than Regional Development Regions. https://statistica.gov.md/pageview.php?l=en&id=5091&idc=349

[26] https://statistica.gov.md/newsview.php?l=ro&idc=168&id=6617
[27] statbank.statistica.md/

Informal employment. Informal employment is more common for men in the Republic of Moldova, but informality is quite high among women as well. The overall informal employment rate is 28.5% for men and 21.7% for women. Informal employment is characteristic for rural areas [28]. In 2020, of all people employed informally in the country, 82.5% were working in rural areas. And of the employees, 63.1% were men[29]. Agriculture and construction are the economic sectors most exposed to informality, which explains why men are overly represented in this type of work, especially in rural areas.

> The detailed labor conditions requirements are mandatory for the entire country and do not differ by location or region. In order to avoid or mitigate the labor related risks and impacts a separate document – Labor Management Procedures (LMPs) is developed and is attached to ESMF.

Trade unions, labor safety control institutions are not very functional in the Republic of Moldova. Mostly, the employees choose to change jobs when they are dissatisfied with the working conditions, salary, salary delays, etc., without addressing other institutions. Distrust persists in state institutions, and addressability is low due to bureaucratic procedures and the perception that justice will not be served. For this reason, employees should be informed about the benefits of formal employment and encouraged to claim their rights when they are violated. All project workers are encouraged to use the existing project grievance mechanism to raise workplace concerns.

1.2.4. Poverty

Although the Republic of Moldova has made progresses in income increase, the income of the population remains the smallest in the region, ranking the Republic of Moldova as the poorest country in Europe. From2010 to 2019the average disposable income of the population grew by 53.5% from MDL 1,273.7 to MDL 1,956.6. At the same time, the discrepancy between the income of urban and rural population has increased – from 23.6% in 2010 up to 41.8% in 2015, which proves that social inequalities between the urban and rural population have deepened[30].

The key poverty and inequity indicators for Moldova (comparative figures for 2014 and 2019), are presented in *Table 5*.

Table 5: Poverty and Inequity Indicators in Moldova, 2014 and 2019

Item	2014	2019
Absolute poverty line (MDL[31])	1558.6	2095,1
Absolute poverty rate, total population	29.5%	25.2%
Absolute poverty rate for + 60 years single-member household	31%	38.1%
Absolute poverty rate for household with 3 and more children	57.8%	38,1%
Absolute poverty rate for rural households	39.5%	34.5%
Absolute poverty rate for urban households	15.6%	11.2%
Absolute poverty rate for South region[32]	35.1%	40,4%
Absolute poverty rate for North region[33]	31.9%	27.7%
Extreme poverty rate	12.8%	10.7%

Source: NBS

[28] https://www.fao.org/3/cb9555en/cb9555en.pdf
[29] NBS, Statistical Databank: Employed population, by age groups, type of the unit, type of the job, years, sex and area (Informal employment)
[30] Inequalities in urban and rural Moldova: Beyond incomes and averages, looking into the future of inequalities, UNDP, Moldova 2020
[31] 1 US$= 17.75 MD
[32] South Region includes Cahul
[33] North Region includes Briceni

The poverty rate in 2019 was higher in the South region (40.4%). Households with single elderly people and those with more than 3 children are most at risk of living in poverty. Poverty also varies depending on the level of education of the head of the household. Each additional level of education of the head of the household means a decrease in the poverty rate, from 78.3% for households where the head of the household has primary education or no education, to 4.6% for households where the head of the household has higher education[34].

Over the years, low salaries have resulted in international labor migration. Labor migration intensification has generated a growth of money transfers, which currently are a significant source in the households' budget. On average, remittances represent 12.5% of total households' income[35]. The most important source of income for households with at least one person with disabilities is social benefits[36].

Public opinion polls reveal that about 27% of respondents saying their incomes are not enough to cover the bare necessities, 43% saying they just cover the necessities, and 22% saying they provide for a decent life but not expensive goods; only 6 per cent consider themselves better off[37].

1.2.5. Labor Conditions

In the Republic of Moldova, the share of informal employment is relatively high (23.1% was in 2019)[38]. Informal employment is most common among the rural employers, men, young and unskilled workers[39].

Undeclared (based on verbal agreements) work among employees accounted for 7.2% in 2019. The practice of hiring without completing individual employment contracts (based on verbal agreements) is more common among male employees (9.1%) than female employees (5.6%). The largest shares of employees who work only on the basis of verbal agreements, are estimated in agriculture (48.3%), trade (16.0%), construction (15.3%) and industry (6.4%)[40].

Under-declaration of wages/ envelop wages are widespread in Moldova, at least 21.3% of Moldova's employees partially of fully received their salaries in envelopes, according to an opinion poll conducted in 2018[41]. According to the results of the survey "Distribution of employees by earnings size in September 2022", the average gross monthly earnings at the units in the real sector with 4 and more employees and in budgetary institutions in September this year was 10353,3 MDL.

Compared to September 2021, the share of employees whose earnings are less than 4 thousand MDL decreased (by 8,0 percentage points) but the share of employees whose earnings are more than 10 thousand MDL increased by 7,5 percentage points[42].

[34] NBS, https://statistica.gov.md//newsview.php?l=ro&idc=168&id=6865#idc=429&
[35] NBS, https://statistica.gov.md/newsview.php?l=ro&idc=168&id=6614
[36] NBS, HBS
[37] Public Opinion Barometer, hOp://bop.ipp.md/
[38] NBS, statbank.statistica.md
[39] NBS
[40] https://statistica.gov.md/newsview.php?l=ro&idc=168&id=6617&parent=0
[41] CBS-AXA/IDIS, http://www.viitorul.org/ro/content/salariile-%C3%AEn-plic-prejudiciaz%C4%83-bugetul-public-na%C8%9Bional-cu-35-miliarde-anual
[42] https://statistica.gov.md/en/distribution-of-employees-by-size-of-salary-calculated-for-9436_60159.html

1.2.6. Main Gender Gap Relevant to this Project

In the Republic of Moldova, far more women living in rural areas are at risk of poverty compared with men and with urban populations. The recently released National Gender Profile on Agricultural and Rural Livelihoods in the Republic of Moldova presents a snapshot of gender inequalities that affect various aspects of agricultural production and rural livelihoods in the country.

Progress in advancing gender equality has been made but significant gaps remain to be closed. National data analysed in the national gender profile presents a picture of positive developments mixed with immediate challenges, such as land tenure rights, access to resources and inputs, and the negative and disproportionate impact of climate change.

Women control only 19% of the total farmland and female farmers own less than 12 percent of all types of machinery and equipment. On the other hand, there is an upward trend in women's engagement in entrepreneurship: more than half of the subsidized start-ups are run by female farmers.[43]

Unpaid work: Informal work encompasses unpaid work by family members. In rural areas, such unpaid work is performed by family workers on household or family farms. One of the most significant gender differences concerning rural employment is the high reliance on women informal workers who would be classified as contributing family workers.

Land and property tenure: Moldovan legislation protects the equal rights of women and men to own land and property and, notably, ownership of assets purchased or constructed by spouses during the marriage is recognized as belonging to both parties, even if only one of them is entered into the real estate registry. This provision is especially beneficial for married women, as traditional practices often mean that the husbands are the only registered owners of land and other assets. According to official data, 41% of land plots in the state registry were owned by women in 2014, with a breakdown of 39% rural lands and two percent urban lands[44].

Farm ownership and management: The sex-disaggregated data produced by the agricultural census provide a very useful picture of women as owners of agricultural land, both in legal entities and in family farming. In general, women represent a minority of farmers of any type (referring here to the recognized head of the holding, regardless of whether the farm has legal status). Women own or manage just over a third of the agricultural holdings in the Republic of Moldova. Women make up a larger proportion of farmers without legal status (36.4%). This figure is considerably lower than the number of women who take part in agricultural production, as part-time or seasonal labourers, or as unpaid family workers[45].

Although women head just over a third of agricultural holdings, considering the total land area, they have control over only 19% of the land. This represents a difference of over 1.3 million hectares. For holdings without legal status, which is where most women are represented as farmers, women own less than a third of agricultural lands. These data indicate that in the Republic of Moldova, title and tenure over agricultural land remains with men. Women do not have equal access to these lands despite there being no legal barriers that would impede their ownership[46].

[43] https://www.fao.org/europe/news/detail-news/en/c/1601671/
[44] World Bank, 2014
[45] https://www.fao.org/3/cb9555en/cb9555en.pdf
[46] National gender profile of agriculture and rural livelihoods

> No available information at this stage of the Project on female-headed farms/households – members of the WUAs. This aspect will be taken into consideration on ESIA and ESMPs development.

1.2.7. Gender-based Violence, Sexual Harassment, Sexual Exploitation and Abuse

In Moldova 63.4% of women aged >15 suffered at least one form of physical, psychological, or sexual violence during their lives. Rates in rural areas are even higher at 69%[47] (the highest among CIS countries). Sociological studies demonstrated prevalence of physical violence in 50% of the interviewed men's families, and pointed at problematic traditional perceptions and stereotypes, and persisting gender inequality in families/society as root causes of violence: e.g. 27.7% of men/17.5% of women believe that a woman should tolerate violence to save the family, and 41.1% men / 19.1% women believe that there are situations when a woman's beating is justified[48].The situation is worse for women in rural areas and with low level of education.

Republic of Moldova has ratified or inherited a number of national and international commitments on gender equality and GBV prevention, including the adoption of Law no. 196; signing the Council of Europe Convention on preventing and combating violence against women and domestic violence and ratified in October 2021; signing and ratifying the CEDAW Convention[49], one of the first conventions signed and ratified by the Republic of Moldova, on elimination of any form of discrimination against women, the Republic of Moldova is still a country where women are constantly discriminated in all the areas of life.

> There is currently an emergency telephone line (0 8008 8008): accessible 24/24 hours a day, offering victim counseling services, information in conditions of anonymity and confidentiality, managed by the International Center "La Strada"[50].

1.2.8. Vulnerable Groups

Disadvantaged and vulnerable groups are persons who may be disproportionately impacted or further disadvantaged by the Project as compared with any other groups due to their vulnerable status, and that may require special engagement efforts to ensure their equal representation in the consultation and decision-making process associated with the Project.

The potentially vulnerable groups affected by Project's planned activities were identified in the SEP attached to this ESMF, including small holders and small farmers, female-headed farms and households, workers with disabilities, local unskilled people who are unaware of their rights and conditions of employment, underaged workers and WUAs' and Communities' members with disabilities affected by resettlement. Also, will included the groups who may be difficult to access and understand the information related to the Project due to communication barriers (language, illiteracy).

SEP reflects information on meetings and consultations with key stakeholders and provides an overview of their needs. On the basis of the interaction program, activities are planned with interested stakeholders, which will be carried out throughout the life cycle of the Project. The SEP discloses methods for disseminating information to the public, including vulnerable groups. The SEP proposed a dedicated grievance mechanism in order to manage all grievances related to Project implementation.

[47] NBS, Violence against Women in the Family in the Republic of Moldova", Chisinau, 2011
[48] La Strada/ CBS AXA, 2014
[49] The Committee on the Elimination of Discrimination against Women
[50] http://lastrada.md/

1.3. Social-economic profile of the Project areas (Component 3)

1.3.1. Ștefan Vodă district

The village Tudora has a population of 2 127, of which 1066 men and 1061 women, according to the 2004 census. The majority of the population are of Moldovan/Romanian nationality – 95,49%, 2,16% are Ukrainians and 1,46% are Russians[51]. The composition of the population by nationality is presented in the *Figure 5* below.

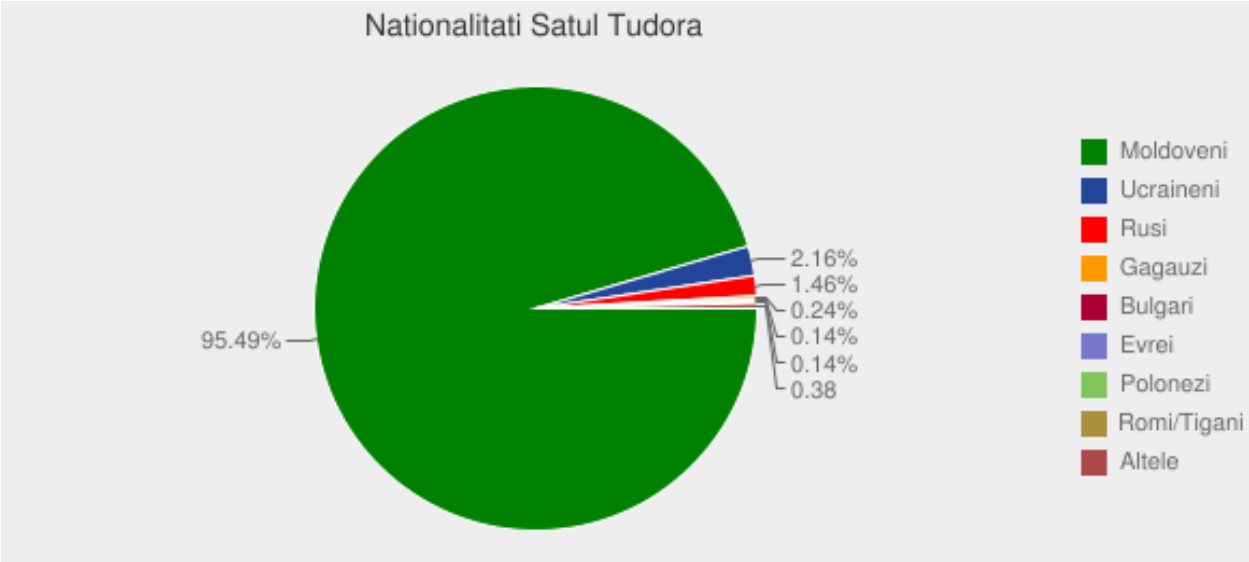

Figure 5: Nationalities in the village of Tudora

The distribution of the population by age category is presented in the *Figure 6* below, where we see that in the age categories 26-35 and 36-45 there are 21.70% and 20.58%.

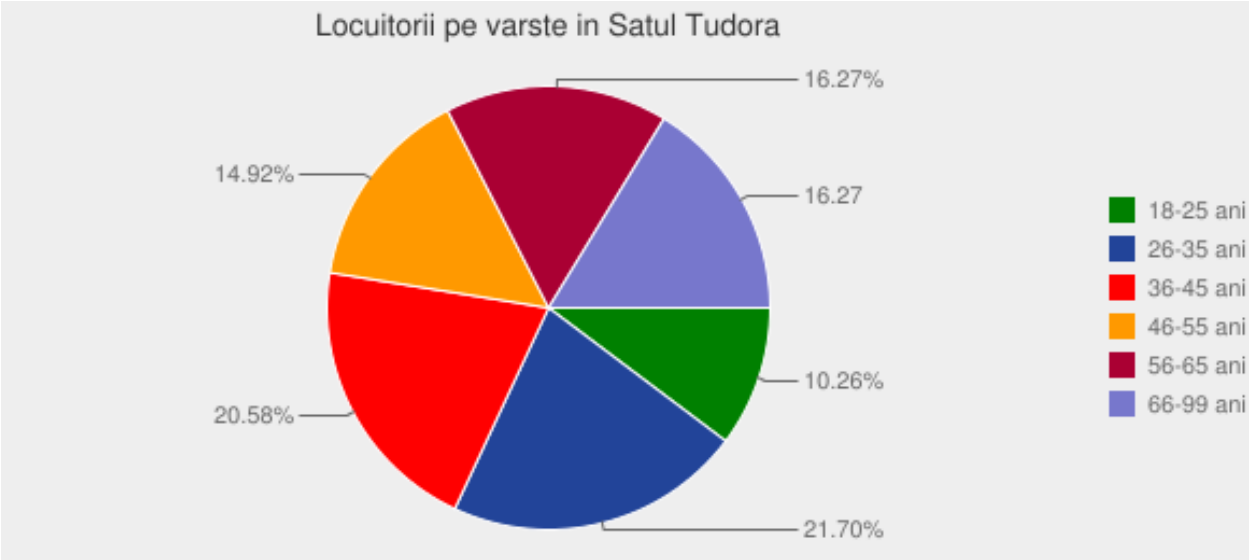

Figure 6: Residents by age group in the Tudora Village

[51] https://localitati.casata.md/index.php?action=viewlocalitate&id=8536

According to the 2004 census, the population of the village was 3,631 people, of which 1819 men and 1812 women. In the village of Caplani, 1,202 households were registered in the 2004 census, and the average size of a household was 3.0 people.

In the village Caplani are 98,84% are Moldavians/Romanians, 0,55% are Ukrainian and 0,41% are Russian. Ethnic structure of the village Caplani are presented in *Table 6* below.

According to the 2004 census, the population in the village Crocmaz is 3,002, of which 1475 men and 1527 women. 22,16 % of population are in the age category 66-99 years and 18,19% are in the age category 36-45 years. The population distribution by age categories is presented in the figure 7 below.

Table 6: The composition of the population by nationalities in the Caplani locality

#	Nationalities	No. of population	%
1	Moldovans/Romanians	3 589	98.84
2	Ukrainian	20	0.55
3	Russian	15	0.41
5	Bulgarian	4	0.11
9	Others	3	0.08

In the village Crocmaz 98,2% are Moldavians/Romanians, 1,07 % are Ukrainian and 0,4 are Russians.

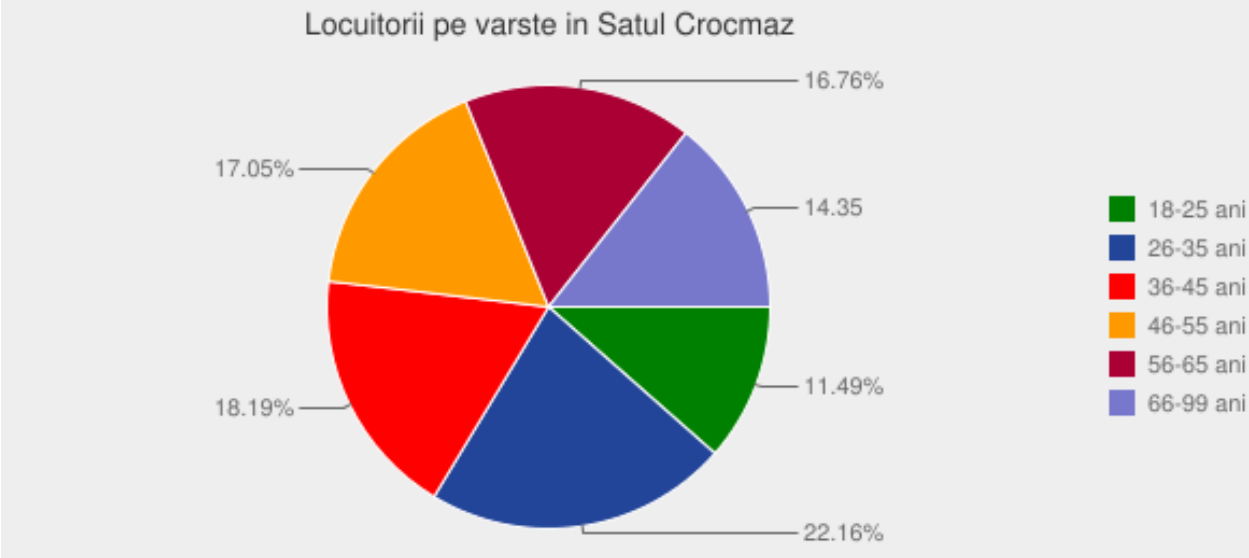

Figure 7: Residents by age group in Crocmaz Village

Ștefan Vodă District hosts a total of 14,469 registered businesses, many of which are agricultural. Agricultural land makes up 65,199 ha (65.3%) of total land area, while arable land occupies 55,542 ha (55.6%) of the total agricultural land. The farmland in the district includes 4977 ha (5.0%) of vines, 3237 ha (3.2%) of orchards, and 1398 ha (1.4%) of pastures. Major crops grown in the area include wheat, oats, sunflower, canola, soybeans, and vegetables[52].

[52] https://en.wikipedia.org/wiki/%C8%98tefan_Vod%C4%83_District#Economy

1.3.2. Briceni district

According to the census data from 2004, the population of Tețcani Village is 2776 people, of which 48.02% are men and 51.98% are women. The ethnic structure of the population in the village is as follows: 7.74% - Moldovans, 90.96% - Ukrainians, 0.97% - Russians, 0.14% - Gagauz, 0.04% - Bulgarians, 0.14% - other ethnicities. In the village of Teţcani, 1010 households were registered in the 2004 census, and the average size of a household was 2.8 people[53].

According to the census data from 2004, the population of the village Corjeuți was 7570 people, of which 49.19% - men and 50.81% - women. The ethnic structure of the population in the village is as follows: 98.67% - Moldovans, 0.87% - Ukrainians, 0.37% - Russians, 0.00% - Gagauz, 0.09% - other ethnicities. In the village of Corjeuţi, 2264 households were registered in the 2004 census, and the average size of a household was 3.3 people.

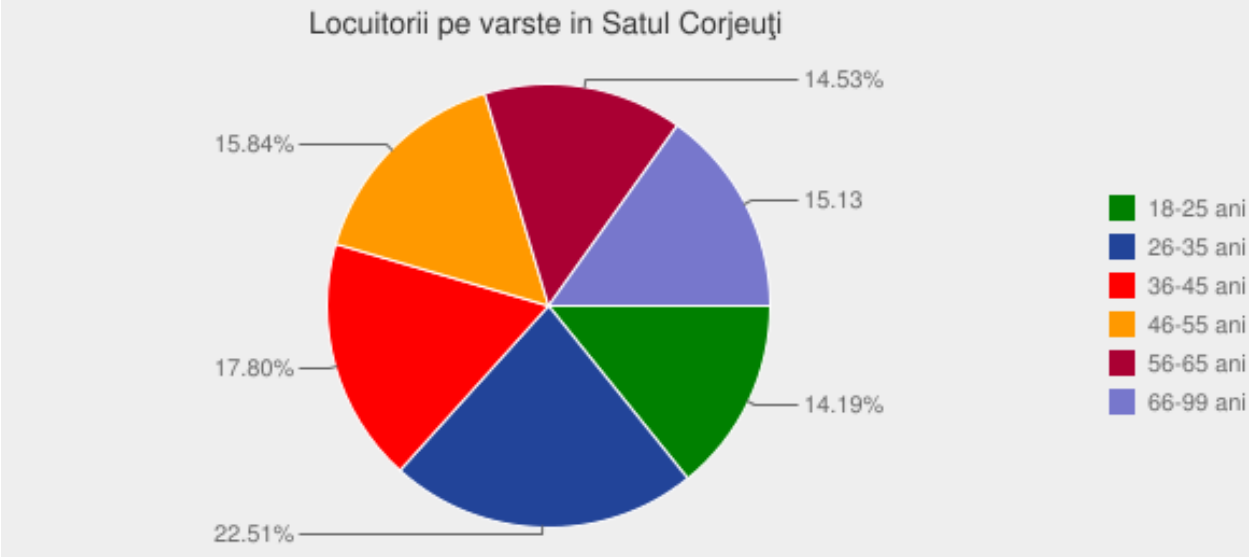

Figure 8: Residents by age group in Corjeuti Village

Briceni District in the National Development Complex of the Republic of Moldova is presented as an agrarian-industrial district. In 2004, 20,000 were active economic agents, including industrial enterprises of 1070, 18,000 peasant farms, joint stock companies 27, 185 limited liability companies, cooperatives 32, 20 trade enterprises, 19 state companies, insurance associations 20 associations households peasant 2 and budgetary organizations 186.

Agriculture is the main economic branch of the district dominated by increasing crops such as sugar beet and tobacco. And cereal crops: wheat, barley and oats. Orchards have an important part of global agricultural production is grown mainly district: apple, cherry, plum and more[54].

1.3.3. ATU Gagauzia and Cahul district

Etulia is a commune in the Gagauz Autonomous Territorial Unit of the Republic of Moldova. It is composed of three localities: Etulia, Etulia Nouă and Etulia railway station.

In the 2004 census, the population of the village was 2567 people, of which 49.55% were men and 50.45% were women. The ethnic structure of the population in the village: 3.86% - Moldovans,

[53] https://www.moldovenii.md/en/city/details/id/266#Popula%C8%9Bia
[54] https://en.wikipedia.org/wiki/Briceni_District#Economy

1.17% - Ukrainians, 0.86% - Russians, 93.42% - Gagauz, 0.55% - Bulgarians, 0.16% - other ethnicities.

According to the census data from 2004, the population of Etulia commune was 3649 people, of which 49.90% - men and 50.10% - women. The ethnic composition of the commune's population: 4.49% - Moldovans, 1.18% - Ukrainians, 0.85% - Russians, 92.68% - Gagauz, 0.66% - Bulgarians, 0.03% - Poles, 0.11% - other ethnicities.

In the commune of Etulia, 1037 households were registered in 2004, and the average size of a household was 3.5 people.

In terms of economic development, Cahul district is characterized by the development of industries based primarily on various raw materials. There are 11 private wineries and 8 bakeries. In the cheese industry, there is a factory, collecting cereal and processing vegetables and fruit. Light industry is present in two garment factories (Tricon JSC and Laboratorio Tessala Mol Ltd). Building materials are present in plant and plant ceramsite concrete. Agriculture is the main branch of the district. Of the total 154,600 ha, 64% is agricultural land. The largest share of arable land is: 81%, perennial plantations. 18% incumbent, and 1% vegetable plantations[55].

[55] https://en.wikipedia.org/wiki/Cahul_District#Economy

Annex 2. E&S Screening Checklists

Annex 2.1. Screening Form for Potential Environmental and Social Issues

This form is to be used by the CAPMU to screen for the potential environmental and social risks and impacts of a proposed subproject. It will help the CAPMU in identifying the relevant Environmental and Social Standards (ESS), establishing an appropriate E&S risk rating for these subprojects and specifying the type of environmental and social assessment required, including specific instruments/plans. Use of this form will allow the CAPMU to form an initial view of the potential risks and impacts of a subproject. ***(!) It is not a substitute for project-specific E&S impact assessments or specific mitigation plans.***

A note on *Considerations and Tools for E&S Screening and Risk Rating* is included in *Section 3* to assist the process.

Subproject Name	
Subproject Location	
Subproject Proponent	
Estimated Investment	
Start/Completion Date	

Question	Answer			ESS relevance	Due diligence / Action(s)
	Yes	No	N/A		
Does the subproject involve civil works including new construction, expansion, upgrading or rehabilitation of facilities?				ESS1	ESIA/ESMP, SEP
Does the subproject involve land acquisition and/or restrictions on land use?				ESS5	No subproject or activity will entail land acquisition under this project, and RAP is not to be prepared
Does the subproject involve recruitment of workers including direct, contracted, primary supply, and/or community workers?				ESS2	LMP, SEP
Does the subproject have appropriate OHS procedures in place, and an adequate supply of PPE (where necessary)?					
Does the subproject have a GRM in place, to which all workers have access, designed to respond quickly and effectively?					
Is the subproject located within or in the vicinity of any ecologically sensitive areas?				ESS6	ESIA/ESMP, SEP
Is the subproject located within or in the vicinity of any known cultural heritage sites?				ESS8	ESIA/ESMP, SEP
Does the project area present considerable				ESS1	ESIA/ESMP, SEP

Question	Answer			ESS relevance	Due diligence / Action(s)
	Yes	No	N/A		
Gender-Based Violence (GBV) and Sexual Exploitation and Abuse (SEA) risk?					
Does the subproject carry the risk that disadvantaged and vulnerable groups may have unequitable access to project benefits?				ESS1	ESIA/ESMP, SEP
Is there any territorial dispute between two or more countries in the subproject and its ancillary aspects and related activities?				*OP7.60 Projects in Disputed Areas*	Governments concerned agree
Will the subproject and related activities involve the use or potential pollution of, or be in international waterways[56]?				*OP7.50 Projects on International Waterways*	ESIA, incl. Notification or ESMP

Conclusions:

1. Proposed E&S Risk Ratings (High, Substantial, Moderate or Low). Provide Justifications.
2. Proposed E&S Management Plans/Instruments.

[56] International waterways include any river, canal, lake or similar body of water that forms a boundary between, or any river or surface water that flows through two or more states.

Annex 2.2. Screening checklist to assess the social impacts and risks of subprojects

Potential Social Impacts/Risks	Yes	No	Not known	Details
1. Will the subproject intervention include new physical construction work?				
2. Does the subproject intervention include upgrading or rehabilitation of existing physical facilities?				
3. Is the intervention likely to cause any permanent damage to or loss of housing, other assets, resource use?				
4. Does this subproject require private land acquisitions?				
5. Is there any physical displacement of persons due to activities/constructions?				
6. Does this project involve resettlement of any persons?				
7. Will there be loss of /damage to agricultural lands, standing crops, trees?				
8. Will there be loss of incomes and livelihoods?				
9. Does the applicant/subproject have measures in place to preven and mitigate loss of employment/jobs?				
10. Will the subproject require labor force for new activities?				
11. Does the applicant have measures in place (corporate policies/corporate statement/code of conduct) to ensure respect of labor rights, operational safety, and health procedures?				
12. Does the sub-project have measures in place: Code of Conduct, registry of all workers on site, policies aimed at combating child labor/forced labor, GBV, sexual abuse and harassment?				
13. Do activities of subprojects have any issues/risks related to illegal employment?				
14. Does the subcontractor have temporary, seasonal employees? What is the form of contracting them? Does it intend to hire seasonal / temporary workers? What is the legal age of employment at this enterprise?				
15. Will disadvantaged & vulnerable groups (including socially marginalized communities such as Roma, elderly, homeless, ethnic minorities) benefit by the subproject intervention?				
16. How can the subproject entities demonstrate that the subproject activities will provide equally and fair services without any discrimination against women, people with disabilities, elderly or socially vulnerable individuals and groups? Has it employed in the past workers from these categories?				
17. Will the activities of subprojects be likely to have any issues/risk related to gender-based violence and sexual harassments? Is this enterprise willing to adopt Code of Conducts and provide adequate information on how to receive support on GBV, sexual abuse and harassment?				
18. Does the subproject include social entrepreneurship activities[57]?				
19. Has the local population or any NGOs expressed concern about the proposed activities?				
20. Does the subproject have measures to prevent the spread of COVID-19 in order to ensure Occupational Health and Safety of their workers?				
Overall assessment of potential impacts and proposed mitigations measures, if any:				

[57] Ref: The Law #845/1992 on entrepreneurship activities – https://www.legis.md/cautare/getResults?doc_id=135032&lang=ro

Annex 2.3. Environmental Screening Checklists

ENVIRONMENTAL SCREENING CHECKLIST

Part 1

(to be completed by beneficiary)

1. **Project Name:**

2. **Brief Description of sub-project** to include: nature of the project, project cost, physical size, site area, location, property ownership, existence of on-going operations, plans for expansion or new construction.

3. **Will the project have impacts on the environmental parameters** listed below during the construction or operational phases? Indicate, with a check, during which phase impacts will occur and whether mitigation measures are required.

Environmental Component	Construction Phase	Operational Phase	Mitigation Measures
Terrestrial environment			
Soil Erosion & Degradation: Will the project involve ploughing/ plant cultivation on the slopes?			
Habitats and Biodiversity Loss: Will the project involve use or modification of habitats (pasturing on and ploughing up the steppe areas, cutting or removal of trees or other natural vegetation, etc.)			
Land degradation: Will the project apply pesticides?			
Land, habitats & ecosystems degradation: In case of cattle production, will the project contribute to land, habitats and ecosystems degradation?			
Land & soil degradation: Will the project involve land excavation?			
Generation of solid wastes, including toxic wastes?			
Biodiversity and Habitats Loss: Will the project located in vicinity of protected areas or other sensitive areas supporting important habitats of natural fauna and flora?			
Land Erosion & Degradation: agricultural crop production & plantation crop production - will the project presume appropriate agricultural practices?			
Biodiversity Loss: enlargement of area under the agricultural crop production			
Soil & underground water pollution			
Land degradation, water pollution & aesthetics: Construction			
Other impacts			
Air quality			
Will the project provide pollutant emissions?			
Will the project generate specific air pollution (dioxins, furans, etc)			
Aquatic environment			
Water Quantity: will the project involve water use?			
Water Quality / Pollution: Will the project contribute to surface water pollution			
Underground and Surface Water Pollution: Will the project applies pesticides and inorganic fertilizers contributing to surface water pollution?			
Loss of Biodiversity: Will the project involve introduction of alien species (e.g., in case of aquaculture projects)?			
Loss of Biodiversity: Will the project located in vicinity of protected area or wetlands supporting both local avifauna and birds on passage?			
Degradation of natural aquatic ecosystems			
Weeds, pests, diseases: will the project contribute to spreading of weeds, pests and animal and plant diseases?			
Sedimentation of water bodies			

Environmental Component	Construction Phase	Operational Phase	Mitigation Measures
Other impacts			
Socio-economic environment			
Will the project assure non-deterioration of human health, occupational safety and non-disturbance of residents living near project area?			
Does the project require public consultation to consider local people environmental concerns and inputs?			
Social Component	See *Annex* H		

4. For the environmental components indicated above, and using the information provided in the *table* below **describe the mitigation measures that will be included during the construction (C) or operational (O) phase of the project or both (B)**

Environmental Component	Phase (C, O or B)	Mitigation Measures

5. **Examples of Mitigation Measures** (for more detailed description of listed below and other potential mitigation measures refer to *Annex*es E, F & G)

Environmental Component	Mitigation Measures
Terrestrial ecosystems	
Soil Erosion & Degradation: Will the project involve ploughing/ plant cultivation on the slopes stimulating soil erosion and landslides?	1) Ploughing across the slope 2) Contour tillage 3) Avoid creation of new terraces since it is linked with loss of topsoil, etc.
Habitats and Biodiversity Loss: Will the project involve use or modification of habitats (pasturing on and ploughing up the steppe areas, cutting or removal of trees or other natural vegetation, etc.)	1) Avoiding use of remained natural or semi-natural steppe areas for pasturing and crop production 2) Avoid, where possible, cutting of trees and other natural vegetation, etc. 3) Minimize loss of natural vegetation/ Maximal preservation of vegetation during construction
Land degradation: Will the project applies pesticides?	1) Use of less harmful (non-persistent) pesticides 2) Not to apply more pesticides than needed 3) To ensure appropriate pesticides handling to avoid contaminated surface runoff, etc.
In case of cattle production, will the project contribute to land, habitats and ecosystems degradation?	1) Not to exceed pastures' capacity (on degraded lands this is 0,3-0,5 conv. cap/ ha; on good lands – 1,5 conv. cap/ per ha) and avoid overgrazing 2) Where possible, use of stabling 3) To develop sawn pastures 4) Where possible, to fence grazing areas to use them subsequently, giving to others possibility to restore, etc. 5) Not to graze in natural areas in early spring and late autumn, etc.
Land & soil degradation: Will the project involve land excavation?	1) To dislocate excavated topsoil to adjacent agricultural lands
Generation of solid wastes, including toxic wastes?	1) Wastes reuse and recycling 2) Disposal on authorized landfills including on special toxic wastes disposal sites
Biodiversity and Habitats Loss: Will the project located in vicinity of protected areas or other sensitive areas supporting important habitats of natural fauna and flora?	1) Consideration of alternative locations, where possible 2) Careful timing of works and work seasonally, as appropriate: to avoid construction during breeding season 3) Where possible, to fence the area under construction to lessen occasional disturbance on habitats and biodiversity 5) Use natural meadows and grasslands rather for mowing than grazing 4) Inform personnel about importance of adjacent environmentally important area, if any, etc.
Land Erosion & Degradation:	1) Appropriate crop rotation: fallow land – wheat – maize – sunflower –

Environmental Component	Mitigation Measures
Agricultural Crop Production & Plantation Crop Production - Will the project presume appropriate agricultural practices?	lucerne – lucerne (2 years long) – legumes (pea, haricot, etc.) / wheat maize, etc./ or rye- maize-sunflower-Lucerne-Lucerne-legumes-rye, etc 2) Plowing and tillage: plowing across the slope & contour tillage 3) On lands which are subject to erosion preferable cultivation of plants with require dense sawing (e.g. wheat, rye, etc.) and avoid cultivation of tilled crops (e.g., maize, sunflower), 4) Orchards: creation of grass strips between the rows, deep cultivation between the rows, 5) Where possible, to prefer agricultural land arrangement as follows: areas with cultivated crops alternated with areas used for pasturing and orchards, etc.
Biodiversity Loss: enlargement of area under the agricultural crop production	Where possible, to plant (or maintain) green corridors to ensure movement of terrestrial fauna
Soil & underground water pollution	1) Fuel and lubricants: use of specially arranged sites (with concrete floor) for their handling and storage to avoid their leakages into the soil and runoff into water bodies 2) Pesticides: see above 3) Use of special platforms and tanks with a waterproof bottom for accumulation of manure and preparing of organic fertilizers, etc.
Land degradation, water pollution & aesthetics: Construction	1) Careful selection of location for and planning of the project 2) To minimize construction site's size and design work to minimize land affected, 3) Where possible, to execute construction works during dry season to avoid excessive contaminated runoff 4) Properly arranged waste disposal sites 5) Cleaning of construction site, replacing the lost trees, re-vegetation of work area, etc.
Other impacts?	Other measures?
Air quality	
Will the project provide pollutant emissions?	1) Use of approved methods and techniques to prevent and control emissions (e.g. absorption) 2) Where possible, enclosure of dust producing equipment, and use of local exhaust ventilation 3) Where possible, arrange barriers for wind protection (if raw material is stored and processed in open areas) 4) Where possible, use of fuels with a low sulfur content, such as natural gas or liquefied petroleum gas and use of low-sulfur raw material 5) Where possible, installation of dedicated filtration systems, etc
Will the project generate specific air pollutants (furans, dioxins)?	1) Selection of materials or processes with no or low demand for VOC-containing products 2) Where possible to substitute the use of solvents and other materials which have a high VOC content 3) Where possible, to install and modify equipment to reduce solvent use in manufacturing process 3) To execute strict primary and secondary control of air emissions, etc.
Aquatic Ecosystems	
Water Quantity: will the project involve water use?	1) To ensure natural flow of water/ minimum disruption of natural streams flows 2) To install water meters to control and minimize water use 3) Avoid or minimize surface water abstraction in case downstream the wetland is situated. etc.
Water Quality / Pollution: Will the project contribute to surface water pollution	1) a. For small rural enterprises: to install local wastewater treatment facilities (e.g., septic tanks) b. For big enterprises: not to exceed established limits of pollutants in effluents 2) To minimize water and mud collection 3) Where possible, to renovate existing sewerage system/ ensure connection to municipal sewerage system 4) To arrange properly waste disposal sites
Underground and Surface Water	1) See above

Environmental Component	Mitigation Measures
Pollution: Will the project applies pesticides and inorganic fertilizers contributing to surface water pollution?	2) Where possible, to plant at least bush vegetation down slope to reduce pollutants surface runoff into water bodies
Loss of Biodiversity: Will the project involve introduction of alien species (e.g., in case of aquaculture projects)?	1) Where possible, to avoid introduction of alien species 2) In case of use of already introduced alien species to ensure their non-coming into natural ecosystems, e.g., during water discharge from the ponds, etc.
Loss of Biodiversity: Will the project located in vicinity of protected area or wetlands supporting both local avifauna and birds on passage?	1) Not to exceed established limits of pollutants in effluents and emissions 2) To avoid or minimize construction and operational activities during breeding and migration periods, etc.
Degradation of natural aquatic ecosystems	1) Avoid application of pesticides in the strip with width of 300 m along the natural surface water bodies, 2) Avoid cutting of trees and other natural vegetation along the water bodies 3) Avoid coming of alien species into natural water bodies, 4) Properly arranged waste disposals sites, etc.
Weeds, pests, diseases: will the project contribute to spreading of weeds, pests and animal and plant diseases?	1) Avoid cultivation of plant mono-culture on agricultural lands 2) Appropriate pest management 3) Giving the priority to the agro-technical and biological measures for the control of weeds, pests, and diseases, 4) In cattle farms, to adhere established veterinary rules to prevent or minimize animal diseases, etc.
Sedimentation of water bodies	1) To avoid excessive soil erosion: see above 2) Minimize soil processing 3) Provide retention/ sedimentation ponds, as necessary 4) To control reed harvesting (to avoid over-harvesting)
Other impacts?	Other measures?
Socio-economic environment	
Compliance with health and safety legislation, including on preventing child labor, forced labor and preventing GBV, sexual abuse, exploitation and harassment Covid-19 prevention at the workplace	1) Are PPEs provided to workers? (Work Utility & Safety Overalls & Coveralls, masks, work boots/shoes). 2) What arrangements have been put in place in response to occupational safety and health requirements ? a. workplace training provided upon work commencement b. water spaying twice a day during construction to avoid dust c. permanent ventilation of internal areas c. signed contracts with all workers and provisions are in accordance with law requirements, including timing of work d. Code of Conduct and awareness sessions conducted on prevention of sexual exploitation and harassment e. Emergency telephone line (0 8008 8008) to report on GBV, sexual harassment on printed simple paper or posters is placed on visible places 3) How often health and safety training is conducted for personnel? 4) Is there an Occupational Health and Safety Plan available for inspection by the PIU representative? 5) Are workers aware where to lodge complaints pertaining to working conditions? 6) Are minors noticed on site? What is their age? 7) Has a health and safety officer been appointed at site? Have Covid-19 prevention responsibilities been assigned to him/her? Are there arrangements put in place for workers to wash their hands with soap? Are sanitizers provided? Do workers wear masks/have they been provided with medical masks? 8) Is there an Accident Registry available on the site? 9) Is there a first aid box available and does it contain the first-aid items? How often it is supplemented with additional items? 10. Observe if health and safety measures are in place to prevent accidents caused by improper management of risks related to falls, slips, electrocution, exposure to chemicals, improper management of pesticides, improper operating heavy machinery, etc.
Does the project community have access	If yes, anticipated public concerns, e.g., project location, waste disposal

Environmental Component	Mitigation Measures
to information about the project, including information where and how to lodge complaints related to non-compliance with environmental protection practices?	sites, harmful emissions into environment, aesthetic arrangement of site under construction activities etc.
Are vulnerable groups supported to enhance their access to the project benefits?	Are there outreach measures designed? Are campaigns customized to reach vulnerable groups, including female-run farms/enterprises?
Social impacts	Appropriate project design: location, methods of construction, use of safe technologies during operation period, work timing, careful decommissioning, etc.

ENVIRONMENTAL SCREENING CHECKLIST

Part 2

(to be completed by subproject implementer)

5. Sub-project risk category (substantial, moderate, low or no risk) _____

6. Environmental and Social Impact Assessment required (yes or no) _____

7. Type of Environmental and Social Impact Assessment (e.g., simple ESIA for subprojects with substantial/moderate risk)
_____

8. Types of ESIA documents (partial ESIA, including Site Assessment and Environmental and Social Management Plan for Category B subprojects; Site Assessment and ESMP checklists for small scale Category B subprojects etc.)
_____
_____

9. What environmental/social issues are raised by the subproject?
_____
_____
_____
_____

10. If an environmental and social assessment is required, what are the specific issues to be addressed?
_____
_____
_____
_____

11. What is the time frame and estimated cost of conducting the environmental and social assessment?
_____
_____

Screener: **Date:**

ENVIRONMENTAL SCREENING CHECKLIST

Part 3

Final Environmental Assessment Checklist (1)

(to be completed by CAPMU)

Was an Environmental Impact Assessment needed? (Y or N) ___ If yes, was it done? ___

Have national and World Bank requirements for public consultation been met and fully documented? (Y or N) ____

Was an Environmental Management Plan prepared? (Y or N) _____

Are the mitigation measures to be included in project implementation adequate and appropriate? (Y or N) _____

Will the project comply with existing pollution control standards for emissions and wastes? (Y or N) _____ If No, will an exemption be sought? _____ _____

Is an Environmental Monitoring Plan necessary? (Y or N) ___ If so, has it been prepared? (Y or N) ___ Approved by the PFI? _____

What follow-up actions are required by the proponent, the PFI?

_____
_____
_____

Were public consultations held concerning potential environmental impacts of the proposed sub-project? (Y or N) _____ Were minutes recorded? (Y or N)_____

Dates	Participants
_____	_____
_____	_____
_____	_____

Project Officer: **Date:**

Environmental Screener: **Date:**

ENVIRONMENTAL SCREENING CHECKLIST

Part 4

Final Environmental Assessment Checklist (2)

(to be completed by CAPMU)

Is the project documentation complete? If not what is missing?

Are land use and resource use permits required? If so have they been received?

Are discharge permits required for solid waste? If so have they been received?

Are discharge permits required for wastewater discharge? If so have they been received?

Is there a sanitary inspection required? Has a permit been issued?

Has the environmental assessment been received and approved?

Is there potential for soil degradation or contamination? If yes, have appropriate prevention or mitigation measures been planned and budgeted?

Is there potential for water quality degradation or contamination? If yes, have appropriate prevention or mitigation measures been planned and budgeted?

Is there potential for air quality degradation or contamination? If yes, have appropriate prevention or mitigation measures been planned and budgeted?

Is there a threat to the biological environment? If yes, have appropriate prevention or mitigation measures been planned and budgeted?

Is there potential for adverse impacts on the social environment? If yes, are there necessary prevention, mitigation or compensation measures planned and budgeted?

Was the level of public involvement in design and planning and public consultation sufficient? Were public concerns raised in the consultation process adequately addressed?

What is the desired level, frequency and scope of environmental monitoring during the construction phase?

What is the desired level, frequency and scope of environmental monitoring during the operational phase?

Project Officer: **Date:**

Environmental Screener: **Date:**

ENVIRONMENTAL SCREENING CHECKLIST

Part 5

Field site visit checklist (if considered necessary)

(to be completed by project implementer/CAPMU)

Project Name: **Date/time of Visit:**
Rayon: **Visitors:**

Current activity and site history

- Who is the site contact (name, position, contact information)?
- What is the area of the site to be used for project activities?
- What are current users of the site?
- What were previous uses of the site (give dates if possible)?
- Are there any encroachers or illegal users of the site whose livelihoods or assets are going to be affected by the project?

Environmental Situation

- Are there sensitive sites nearby (nature reserves, cultural sites, historical landmarks)?
- Are there water courses on the site?
- What is the terrain or slope?
- Does the site experience flooding, waterlogging or landslides? Are there signs of erosion?
- What are the neighboring buildings (e.g. schools, dwellings, industries) and land uses? Estimate distances.
- Will the proposed site affect transportation or public utilities?

Licenses, Permits and Clearances

- Does the site require licenses or permits to operate the type of activity proposed? Are these available for inspection?
- What environmental or other (e.g., health, forestry) authorities have jurisdiction over the site?

Water Quality Issues

- Does the proposed activity use water for any purposes (give details and estimate quantity). What is the source?
- Will the proposed activity produce any effluent? (estimate quantity and identify discharge point)
- Is there a drainage system on site for surface waters or sewage? Is there a plan available of existing drainage or septic systems?
- How waste water is managed (surface water courses, dry wells, septic tanks)?

Soils

- What is the ground surface (agricultural land, pasture, etc.)?
- Will the project damage soils during construction or operations?
- Will the project affect the landscape significantly (draining wetlands, changing stream courses)

Biological environment

- Describe vegetation cover on the site.
- Is there information about rare or threatened flora and fauna at or near the site? If yes, would the project have an impact or increase risk to the species?
- Obtain a list of vertebrate fauna and common plants of the site (if available).
- Note potential negative impacts on biota if project proceeds.

Visual Inspection Procedures

- Try to obtain a site map or make a sketch to mark details.
- Take photos, if permitted.
- Walk over as much of the site as possible, including boundaries, to note adjacent activities.
- Note any odors, smoke or visual dust emissions, standing water, etc.
- Note any minors/underage workers on the site
- Note signs of fatigue in workers, visible distress, including signs of physical/body damage, etc.

Annex 3. Templates of E&S Assessment instruments

Annex 3.1. Environmental and Social Impact Assessment

Terms of reference for conducting an Environmental and Social impact Assessment Study

An environmental and social impact assessment report Substantial/Moderate-risk (Category B) subprojects focuses on the significant environmental and social issues raised by a subproject. Its primary purpose is to identify environmental and social impacts and those measures that, if incorporated into the design and implementation of a project can assure that the negative environmental and social effects will be minimized. The scope and level of detail required in the analysis depend on the magnitude and severity of potential impacts.

The Environmental and Social Impact Assessment Report should include the following elements:

Executive Summary. This summarizes the significant findings and recommended actions.

Policy, legal and administrative framework. This section summarizes the legal and regulatory framework that applies to environmental and social management in the jurisdiction where the study is done.

Project Description. Describes the nature and scope of the project and the geographic, ecological, temporal and socioeconomic context in which the project will be carried out. The description should identify social groups that will be affected, include a map of the project site, and identify any off-site or support facilities that will be required for the project.

Baseline data. Describe relevant physical, biological and social condition including any significant changes anticipated before the project begins. Data should be relevant to project design, location, operation or mitigation measures.

Environmental impacts. Describe the likely or expected positive and negative impacts in quantitative terms to the extent possible. Identify mitigation measures and estimate residual impacts after mitigation. Describe the limits of available data and uncertainties related to the estimation of impacts and the results of proposed mitigation.

Social impacts. Assess the potential positive and negative social impacts associated with the Project which the community might be exposed to. Identify land taking requirements resulting in temporary or permanent economic and/or physical displacement or access restrictions, identify sites of cultural heritage significance, note the presence of minors/underage worker. Note signs of fatigue in workers, visible distress, including signs of physical/body damage, etc. Examine site Registries, including those related to types pf provided OSH training, accidents and injuries on site, registry of what types of medicines are most frequently used. Note the type of information is easily accessible for workers, if the information related to the grievance mechanisms is provided, posters on health and safety measures, including Covid-19 prevention, information on national green-lines, telephone to report incidence of GBV, harassment at the workplace etc.

Cumulative impacts: cumulative impacts may be identified on valued environmental and social components (VECs) on which other existing or future developments may also have detrimental effects, and the project should avoid and/or minimize these impacts to the greatest extent possible. Assess during the ESIA process whether their development may contribute to cumulative impacts on VECs and/ or may be at risk from cumulative effects on VECs they depend on (following guidance from EU Guidelines on the Assessment of Indirect and Cumulative Impacts and the IFC

good practice handbook).

Analysis of Alternatives. Systematically compare feasible alternatives to the proposed project location, design and operation including the "without project" alternative in terms of their relative impacts, costs and suitability to local conditions. For each of the alternatives quantify and compare the environmental impacts and costs relative to the proposed plan.

Assessment and engagement methods: The assessment should be undertaken utilizing both qualitative and quantitative methods and involving both field studies and secondary data to assess the project effects on a targeted baseline. Stakeholder analysis and engagement should also be integrated in the assessment design and participatory methods applied for a constructive basis of dialogue with end-users. ESIA findings and recommendations should be disclosed and consulted on with affected stakeholders.

Environmental and Social Management Plan (ESMP). If significant impacts requiring mitigation are identified, the ESMP defines the mitigation that will be done, identifies key monitoring indicators and any needs for institutional strengthening for effective mitigation and monitoring to be carried out.

Appendices.

These sections should include:

(i) The list of ESIA preparers;
(ii) References used in study preparation;
(iii) A chronological record of interagency meetings and consultations with NGOs and effected constituents;
(iv) Tables reporting relevant data discussed in the main text, and;
(v) A list of associated reports such as social assessments that were prepared for the project.

Annex 3.2. Environmental and Social management Plan Content

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN CONTENT

The content of the sub-project ESMP will include the following:

Mitigation

The ESMP identifies measures and actions in accordance with the mitigation hierarchy that reduce potentially adverse environmental and social impacts to acceptable levels. The plan will include compensatory measures, if applicable. Specifically, the ESMP:

- identifies and summarizes all anticipated adverse environmental and social impacts (including those involving indigenous people or involuntary resettlement);
- describes—with technical details—each mitigation measure, including the type of impact to which it relates and the conditions under which it is required (e.g., continuously or in the event of contingencies), together with designs, equipment descriptions, and operating procedures, as appropriate;
- estimates any potential environmental and social impacts of these measures; and takes into account, and is consistent with, other mitigation plans required for the project (e.g., for involuntary resettlement, indigenous peoples, or cultural heritage).

Monitoring

The ESMP identifies monitoring objectives and specifies the type of monitoring, with linkages to the impacts assessed in the environmental and social assessment and the mitigation measures described in the ESMP.

Specifically, the monitoring section of the ESMP provides (a) a specific description, and technical details, of monitoring measures, including the parameters to be measured, methods to be used, sampling locations, frequency of measurements, detection limits (where appropriate), and definition of thresholds that will signal the need for corrective actions; and (b) monitoring and reporting procedures to (i) ensure early detection of conditions that necessitate particular mitigation measures, and (ii) furnish information on the progress and results of mitigation.

Capacity Development and Training

To support timely and effective implementation of environmental and social project components and mitigation measures, the ESMP draws on the environmental and social assessment of the existence, role, and capability of responsible parties on site or at the agency and ministry level.

Specifically, the ESMP provides a specific description of institutional arrangements, identifying which party is responsible for carrying out the mitigation and monitoring measures (e.g., for operation, supervision, enforcement, monitoring of implementation, remedial action, financing, reporting, and staff training).

To strengthen environmental and social management capability in the agencies responsible for implementation, the ESMP recommends the establishment or expansion of the parties responsible, the training of staff and any additional measures that may be necessary to support implementation of mitigation measures and any other recommendations of the environmental and social assessment.

Implementation Schedule and Cost Estimates

For all three aspects (mitigation, monitoring, and capacity development), the ESMP provides (a) an implementation schedule for measures that must be carried out as part of the project, showing phasing and coordination with overall project implementation plans; and (b) the capital and recurrent cost estimates and sources of funds for implementing the ESMP. These figures are also integrated into the total project cost tables.

Integration of ESMP with Project

The Borrower's decision to proceed with a project, and the Bank's decision to support it, are predicated in part on the expectation that the ESMP (either stand alone or as incorporated into the ESCP) will be executed effectively. Consequently, each of the measures and actions to be implemented will be clearly specified, including the individual mitigation and monitoring measures and actions and the institutional responsibilities relating to each, and the costs of so doing will be integrated into the project's overall planning, design, budget, and implementation.

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN CONTENT

Environmental and Social Management Plan Format

	Impact	Mitigation Measure(s)	Cost		Institutional Responsibility		Remarks
			Install	Operate	Install	Operate	
CONSTRUCTION Phase							
Environmental Component							
Soils							
Water Resources							
Air Quality							
Fauna and Flora							
Social Component							
Aesthetics and Landscape							
Human Communities							
Traffic							
Resettlement							
Job/Income losses							
Health and safety							
Historical and Cultural Sites							
Safety and health of staff and population, including to prevent the spread of Covid-19							
GBV, SEA/SH, forced labor, child labor							
OPERATION Phase							
Environmental Component							
Soils							
Water Resources							
Air Quality							
Fauna and Flora							
Social Component							
Aesthetics and Landscape							
Human Communities							
Historical and Cultural Sites							

	Impact	Mitigation Measure(s)	Cost		Institutional Responsibility		Remarks
			Install	Operate	Install	Operate	
Safety and health of staff and population including to prevent the spread of Covid-19							
GBV, SEA/SH, forced labor, child labor							
DECOMMISSIONING Phase							
Environmental Component							
Social Component							

Environmental and Social Monitoring Plan Format

Phase	**What** parameter is to be monitored?	**Where** will the parameter be monitored?	**How** will the parameter be monitored?	**When** will the parameter be monitored?	**Why** is the parameter being monitored?	Cost		Institutional Responsibility	
						Install	*Operate*	*Install*	*Operate*
Baseline									
Construction									
Operation									
De-commissioning									

Annex 3.3. Environmental and Social Management Plan Checklist

Environmental and Social Management Plan Checklist

(for small scale construction/rehabilitation sub-projects)

PART 1: GENERAL PROJECT AND SITE INFORMATION

INSTITUTIONAL & ADMINISTRATIVE				
Country				
Project title				
Scope of project and activity				
Institutional arrangements (Name and contacts)	WB (Project Team Leader)	Project Management	Local Counterpart and/or Recipient	
Implementation arrangements (Name and contacts)	Safeguard Supervision	Local Counterpart Supervision	Local Inspectorate Supervision	Contactor
SITE DESCRIPTION				
Name of site				
Describe site location			Attachment 1: Site Map [ ]Y [ ] N	
Who owns the land?				
Description of geographic, physical, biological, geological, hydrographic and socio-economic context				
Locations and distance for material sourcing, especially aggregates, water, stones?				
LEGISLATION				
Identify national & local legislation & permits that				

apply to project activity	
PUBLIC CONSULTATION/Access to information	
Awareness about project benefits among marginalized groups and remote localities Access to mechanisms for providing feedback related to the project	

ENVIRONMENTAL /SOCIAL SCREENING			
Will the site activity include/involve any of the following:	**Activity**	**Status**	**Additional references**
	Building rehabilitation	[ ] Yes [ ] No	See Section **B** below
	New construction	[ ] Yes [ ] No	See Section **B** below
	Individual wastewater treatment system	[ ] Yes [ ] No	See Section **C** below
	Historic building(s) and districts	[ ] Yes [ ] No	See Section **D** below
	Acquisition of land[58]	[ ] Yes [ ] No	See Section **E** below
	Hazardous or toxic materials[59]	[ ] Yes [ ] No	See Section **F** below
	Impacts on forests and/or protected areas	[ ] Yes [ ] No	See Section **G** below
	Handling / management of medical waste	[ ] Yes [ ] No	See Section **H** below
	Traffic and Pedestrian Safety	[ ] Yes [ ] No	See Section **I** below

PART 2: MITIGATION MEASURES

ACTIVITY	PARAMETER	MITIGATION MEASURES CHECKLIST
A. General Conditions	Notification and Worker Safety	The local construction and environment inspectorates and communities have been notified of upcoming activities The public has been notified of the works through appropriate notification in the media and/or at publicly accessible sites (including the site of the works) All legally required permits have been acquired for construction and/or rehabilitation All work will be carried out in a safe and disciplined manner designed to minimize impacts on neighboring residents and environment. Workers are provided with PPE and will comply with international good practice (always hardhats, as needed masks and safety glasses, harnesses and safety boots) Appropriate signposting of the sites will inform workers of key rules and regulations to follow.
B. General Rehabilitation and /or Construction Activities	Air Quality	During interior demolition use debris-chutes above the first floor Keep demolition debris in controlled area and spray with water mist to reduce debris dust Suppress dust during pneumatic drilling/wall destruction by ongoing water spraying and/or installing dust screen enclosures at site

[58] The project will support construction of new buildings only in the case when land acquisition is not necessary and there are no any resettlement issues; for such cases the investor should have the landownership title as well as has to prove the land at the moment of sub-projects application is not occupied or used even illegally

[59] Toxic / hazardous material includes and is not limited to asbestos, toxic paints, removal of lead paint, etc. (GD #145/2021 on MoEn regulation (Ref.: https://www.legis.md/cautare/getResults?doc_id=127621&lang=ro)

ACTIVITY	PARAMETER	MITIGATION MEASURES CHECKLIST
		Keep surrounding environment (side walks, roads) free of debris to minimize dust There will be no open burning of construction / waste material at the site There will be no excessive idling of construction vehicles at sites
	Noise	Construction noise will be limited to restricted times agreed to in the permit During operations the engine covers of generators, air compressors and other powered mechanical equipment should be closed, and equipment placed as far away from residential areas as possible
	Water Quality	The site will establish appropriate erosion and sediment control measures such as e.g. hay bales and / or silt fences to prevent sediment from moving off site and causing excessive turbidity in nearby streams and rivers.
	Waste management	Waste collection and disposal pathways and sites will be identified for all major waste types expected from demolition and construction activities. Mineral construction and demolition wastes will be separated from general refuse, organic, liquid and chemical wastes by on-site sorting and stored in appropriate containers. Construction waste will be collected and disposed properly by licensed collectors The records of waste disposal will be maintained as proof for proper management as designed. Whenever feasible the contractor will reuse and recycle appropriate and viable materials (except asbestos)
C. Individual wastewater treatment system	Water Quality	The approach to handling sanitary wastes and wastewater from building sites (installation or reconstruction) must be approved by the local authorities Before being discharged into receiving waters, effluents from individual wastewater systems must be treated in order to meet the minimal quality criteria set out by national guidelines on effluent quality and wastewater treatment Monitoring of new wastewater systems (before/after) will be carried out
D. Historic building(s)	Cultural Heritage	If the building is a designated historic structure, very close to such a structure, or located in a designated historic district, notify and obtain approval/permits from local authorities and address all construction activities in line with local and national legislation Ensure that provisions are put in place so that artifacts or other possible “chance finds” encountered in excavation or construction are noted, officials contacted, and works activities delayed or modified to account for such finds.
E. Acquisition of land	Land Acquisition Plan/Framework	If expropriation of land was not expected and is required, or if loss of access to income or damage to assets of legal or illegal users of land was not expected but may occur, that the bank Task Team Leader is consulted. The approved by the Bank Land Acquisition Plan (if required by the project) will be implemented prior to start of project works.
F. Toxic Materials	Asbestos management	If asbestos is located on the project site, mark clearly as hazardous material When possible the asbestos will be appropriately contained and sealed to minimize exposure The asbestos prior to removal (if removal is necessary) will be treated with a wetting agent to minimize asbestos dust Asbestos will be handled and disposed by skilled & experienced professionals If asbestos material is be stored temporarily, the wastes should be securely enclosed inside closed containments and marked appropriately The removed asbestos will not be reused
	Toxic / hazardous waste management	Temporarily storage on site of all hazardous or toxic substances will be in safe containers labeled with details of composition, properties and handling information The containers of hazardous substances should be placed in an leak-proof container to prevent spillage and leaching The wastes are transported by specially licensed carriers and disposed in a licensed facility. Paints with toxic ingredients or solvents or lead-based paints will not be used
G. Affects forests and/or protected areas	Protection	All recognized natural habitats and protected areas in the immediate vicinity of the activity will not be damaged or exploited, all staff will be strictly prohibited from hunting, foraging, logging or other damaging activities.

ACTIVITY	PARAMETER	MITIGATION MEASURES CHECKLIST
		For large trees in the vicinity of the activity, mark and cordon off with a fence large tress and protect root system and avoid any damage to the trees Adjacent wetlands and streams will be protected, from construction site run-off, with appropriate erosion and sediment control feature to include by not limited to hay bales, silt fences There will be no unlicensed borrow pits, quarries or waste dumps in adjacent areas, especially not in protected areas.
H. Disposal of medical waste	Infrastructure for medical waste management	In compliance with national regulations the contractor will insure that newly constructed and/or rehabilitated health care facilities include sufficient infrastructure for medical waste handling and disposal; this includes and not limited to: Special facilities for segregated healthcare waste (including soiled instruments "sharps", and human tissue or fluids) from other waste disposal; and Appropriate storage facilities for medical waste are in place; and If the activity includes facility-based treatment, appropriate disposal options are in place and operational
I Traffic and Pedestrian Safety	Direct or indirect hazards to public traffic and pedestrians by construction activities	In compliance with national regulations the contractor will insure that the construction site is properly secured and construction related traffic regulated. This includes but is not limited to Signposting, warning signs, barriers and traffic diversions: site will be clearly visible and the public warned of all potential hazards Traffic management system and staff training, especially for site access and near-site heavy traffic. Provision of safe passages and crossings for pedestrians where construction traffic interferes. Adjustment of working hours to local traffic patterns, e.g. avoiding major transport activities during rush hours or times of livestock movement Active traffic management by trained and visible staff at the site, if required for safe and convenient passage for the public. Ensuring safe and continuous access to office facilities, shops and residences during renovation activities, if the buildings stay open for the public.

PART 3: MONITORING PLAN

Phase	**What** (Is the parameter to be monitored?)	**Where** (Is the parameter to be monitored?)	**How** (Is the parameter to be monitored?)	**When** (Define the frequency / or continuous?)	**Why** (Is the parameter being monitored?)	**Cost** (if not included in project budget)	**Who** (Is responsible for monitoring?)
During activity **preparation**							
During activity **implementation**							
During activity **supervision**							

Annex 4. Pest Management Issues

Section I

Background information to be used during the screening process to be completed by sub-project beneficiary

Sub-project beneficiary:
Sub-project title:
Sub-project description: (description of the nature of the investment: equipment purchases, civil works construction, purchase or use of agro-chemicals, seeds, equipment, etc.).

Description of sub-project location: (description of the general land use characteristics at or near the sub-project site; indication of the nearest population centers (villages, cities, etc.), proximity of any surface waters (lakes, rivers, etc.), any areas of particular human or environmental sensitivity or cultural interest (hospitals, schools, religious houses of worship, natural areas protected by the government or international agreements, etc.).

List of pesticides used by the sub-project beneficiary

#	Name of pesticides	Main use*	Active ingredient (AI) and/or formulated products		Moldovan Toxicity Group/WHO Toxicity Class	Area of application, crop	MAC** for usage (per area unit: l/ha, kg/ha etc.)	Actual usage rate	Producer	Certificate of state registration, date of registration, validity
			Common name (by ISO)	Content of AI (g/kg, g/l, g/ml)						
Pesticides used by the sub-project beneficiary										
1										
2										
3										
Pesticides proposed to finance under MSME Project funds (*see attached below Info for beneficiaries*)										
1										
2										
3										

* Main use – herbicide, fumigant, fungicide, etc.
**MAC – Maximum Allowable Concentration (per area unit: l/ha, kg/ha etc.).

Environmental factors

➡ *The impact on the health of handlers, including those who store, sell, transport and apply pesticides*:
To give information regarding minimization of this factor's impact, namely:

- Do employees who handle pesticides as part of their normal work responsibilities receive any regular medical examination? If so, please describe.
- Is a logbook or other written record of pesticide application maintained? If so, what records are kept and who is responsible for this?
- Are pesticides used/planned for procurement under Project funds permitted for usage within Moldova and eligible for financing under Project?

➡ *The impact on the health of food consumers*:
To give information regarding minimization of this factor's impact, namely:

- Warning the food consumers about possible negative impact on their health caused by pesticides application and regarding their minimization (foods washing, etc.);

- Usage of pesticides which minimize the residue and are the least harmful for food consumers, etc.

➡ *Air and surface waters contamination*:
To give information regarding minimization of this factor impact, namely:
- Application of pesticides which are the least hazardous;
- Observance of rules of effective storage and application of pesticides;
- Planning activities and implementation of optimal volumes and time schedules of application of pesticides, etc.

➡ *Wastes*
To indicate the nature of wastes produced during the use of pesticides. To describe separately non-hazardous and hazardous wastes. To provide information on how each of these types of wastes will be handled (recycling, utilization, etc.).

For existing operations

To provide copies of all environmental permits, licenses, registration certificates, approvals, etc. To provide vendor's license to wholesale and retail trade of the pesticides (indicating the series, number, date of issue of the license and its period of validity).

Mentioned documents should be valid and contain expiration dates for these requirements.

Copies of documents that confirm operations aimed at minimization of negative environmental impact and its consequences, and copies of relevant documents (certificate of state registration, quality certificate, etc.) for storage, selling, transportation and applying of pesticides are to be provided.

To provide information regarding applying of the integrated pest management (IPM) methods or approaches:

- Does the beneficiary apply pesticides based on a predetermined schedule, or does the beneficiary monitor pest populations in the field in order to determine when pest numbers are high enough to justify pesticide application? If monitoring of populations is practiced, please describe monitoring methods and the thresholds (factors) which trigger pesticide application;
- Does the beneficiary monitor numbers of beneficial species in the field (e.g., predatory insects, spiders)? If so, which ones and how?
- Does the beneficiary use any non-chemical methods to reduce pest populations and impacts? If so, please describe;
- When applying pesticides, does the beneficiary take any specific precautions to reduce contamination of soil or water, or to reduce impacts on beneficial species? If so, please describe.

Attachment: Information for project beneficiaries

The Bank does not finance formulated products that fall in World Health Organization's (WHO) classes Ia and Ib, as well as Class II products whose toxicity level is equivalent to the WHO Ia/Ib categories, e.g. with oral LD50 for liquids = 200 mg/kg body weight or less (see *table* below).

	LD 50 for the rat (mg/kg body weight)			
	Oral		Dermal	
Hazard Class	**Solids***	**Liquids***	**Solids***	**Liquids***
Ia Extremely hazardous	5 or less	20 or less	10 or less	40 or less
Ib Highly hazardous	5 - 50	20 - 200	10 - 100	40 – 400
II Moderately hazardous	50- 500	200 - 2000	100 - 1000	400 – 4000
III Slightly hazardous	Over 500	Over 2000	Over 1000	Over 4000

* The terms "Solids" and "Liquids" refer to the physical state of the active ingredient being classified.

The Bank declines to finance pesticides which contain active ingredients from the WHO Ia/Ib classes regardless of how they are formulated, on the grounds that most of the commercially available formulations of these materials are

quite hazardous and there are suitable alternatives for almost any application. However, if there is a clear technical case for doing so, and if the toxicity level of the formulated product is under the WHO 1a/1b cut-off point, the Bank could finance such a product.

The Bank will finance formulations of products containing active ingredients from Class II, but only if it can be ensured that they will only be handled by appropriately trained and equipped people and with appropriate safeguards for distribution, storage and disposal. So, they can be financed if the country has well-established and effective legal and regulatory systems addressing these points (e.g. through a certification/licensing program). If the country does not have adequate national control systems, the Bank would normally not finance these products. However, in special cases it could be done if clear and concrete measures are built into the project to ensure that the necessary restrictions will be met for access to/use of the particular materials to be procured). Exceptions can be made for specific formulations which are very low hazard because the active ingredient is at very low concentration, but the case should be made that there is no suitable alternative using an active ingredient which falls below Class II.

However, there are also a few products that **the Bank normally doesn't finance** even though they don't fall into WHO Classes Ia or Ib, because they have hazardous features which make them unacceptable despite having a moderate oral toxicity (oral LD-50, which is the main criterion for WHO classification). This could include human health hazards or environmental hazards. For example, the Bank doesn't finance the herbicide *Paraquat* which falls into WHO Class II (oral LD 50 is 150 mg/kg) but is very easily absorbed through the skin and has high toxicity through that route, and for which there is no known antidote. Another example is granulated slow-release formulations of some pesticides, which are low hazard to people but present a major threat to birds.

Section II

(to be completed by the CAPMU)

Please provide information:	If yes, please explain in details	Mitigation measures*
Does the beneficiary currently use or propose to purchase any pesticides which are not eligible for sub-project financing?		
Does the beneficiary appear to rely entirely or mainly on chemical control with no elements of IPM approach?		
Does the beneficiary have (or lack) adequate facilities to ensure safe storage of pesticides?		
Does the beneficiary have an adequate plan for disposing of excess pesticides and empty containers?		
Does the beneficiary have a record of environmental penalties, legal judgments, etc. related to its environmental performance, or any outstanding liabilities related to relevant activities aimed at minimization of environmental impact and its consequences?		

*For each question where the answer indicates an environmental or safety risk, a specific mitigation plan should be proposed.

Date
Signatures of empowered person on behalf of CAPMU and beneficiary

Recommended Structure of a Pest Management Plan

1. ***Background*** which would outline:
   i) the *purpose* of the Plan,
   ii) indicate *pest management authorities*, and
   iii) pest management program *objective*.

2. ***Responsibilities of individuals*** (e.g., of Program Director, Health Chair, Pest Management Coordinator, Pest Management Personnel, etc.).

3. ***General Information*** which should provide data on land use and soil, in the area where the pesticides are applied; climate, geo-morphology, settlements in the area of concern, population, surface water, etc. as well as inventory of land use and layout of facilities.

4. ***Priority of Pest Management*** (e.g., undesirable vegetation, vertebrate pests, etc.)

5. ***Integrated Pest Management***
   5.1 *Principles of the Integrated Pest Management* are:
      a) *Mechanical and Physical Control*. This type of control alters the environment in which a pest lives, traps and removes pests where they are not wanted, or excludes pests. Examples of this type control include: harborage elimination through caulking or filling voids, screening, etc..
      b) *Cultural Control*. Strategies in this method involve manipulating environmental conditions to suppress or eliminate pests. For example, spreading manure from stables onto fields to dry prevents fly breeding. Elimination of food and water for pests through good sanitary practices may prevent pest populations from becoming established or from increasing beyond a certain size.
      c) *Biological Control*. In this control strategy, predators, parasites or disease organisms are used to control pest populations. Sterile flies may be released to lower reproductivity. Viruses and bacteria may be used which control growth or otherwise kill insects. Parasitic wasps may be introduced to kill eggs, larvae or other life stages. Biological control may be effective in and of it, but is often used in conjunction with other types of control.
      d) *Chemical Control.* Pesticides kill living organisms, whether they be plants or animals. At one time, chemicals were considered to be the most effective control available, but pest resistance rendered many pesticides ineffective. The trend is to use pesticides which have limited residual action. While this has reduced human exposure and lessened environmental impact, the cost of chemical control has risen due to requirements for more frequent application. Since personal protection and special handling and storage requirements are necessary with the use of chemicals, the overall cost of using chemicals as a sole means of control can be quite costly when compared with nonchemical control methods.
   5.2 *Integrated Pest Management Outlines.*
   This sub-chapter addresses each major pest or category of similar pests is addressed, by site, in separate outlines.
   5.3 *Annual Workload for Surveillance, Prevention, and Control.*
   In this sub-chapter has to indicate the number of man-hours expended for surveillance, prevention, and control of pests.

6. ***Health and Safety***. This chapter should contain health and safety requirements as follows:
   6.1 *Medical Surveillance of Pest Management Personnel*. All personnel who apply pesticides have to are included in a medical surveillance program.
   6.2 *Hazard Communication*. Pest management personnel are given hazard communication training, to include hazardous materials in his workplace. Additional training is to be given to new employees or when new hazardous materials are introduced into the workplace.
   6.3 *Personal Protective Equipment*. In this chapter has to be described approved masks, respirators, chemical resistant gloves and boots, and protective clothing (as specified by applicable laws, regulations and/or the pesticide label) are provided to pesticide applicators. These items are used as required during the mixing and application of pesticides. Pesticide-contaminated protective clothing is not be laundered at home but commercially. Severely contaminated clothing is not laundered, but is considered a pesticide-related waste and disposed, as applicable for hazardous waste.
   6.4 *Fire Protection*. The fire safety protection requirements has to be established; the pest management coordinator has to control implementation of measures to prevent fire

7. ***Environmental Considerations*.**

7.1 *Protection of the Public*. Precautions are taken during pesticide application to protect the public, on and off the installation. Pesticides should not be applied outdoors when the wind speed exceeds 155 m/min. Whenever pesticides are applied outdoors, care is taken to make sure that any spray drift is kept away from individuals, including the applicator. Pesticide application indoors is accomplished by individuals wearing the proper personal protective clothing and equipment. At no time are personnel permitted in a treatment area during pesticide application unless they have met the medical monitoring standards and are appropriately protected.

7.2 *Sensitive Areas.* No pesticides are applied directly to wetlands or water areas (lakes, rivers, etc.) unless use in such sites is specifically approved.

7.3 *Endangered/Protected Species and Critical Habitats*. Protected migratory birds which periodically occur on the installation cannot be controlled without a permit. The Pest Management Coordinator periodically evaluates ongoing pest control operations and evaluates all new pest control operations to ensure compliance with the list of endangered species No pest management operations are conducted that are likely to have a negative impact on endangered or protected species or their habitats without prior approval from environmental authorities.

7.4 *Environmental Documentation.* An environmental assessment which specifically addresses the pesticide use program on the installation has been prepared. This Plan is referenced in the assessment as documentation of pesticide use.

Annex 5. Report on Consultation on the Draft ESMF with Interested and Affected Parties

ESMF Disclosure

The ESMF document for the proposed Project has been disclosed on March XX, 2023 for *Public Consultation* on CAPMU official website. In addition to that, on March XX, 2023 the document has been disclosed on *Particip.gov.md* website, which is specially designed for public consultations of such types of documents. All interested parties have been invited to submit virtually their comments and questions to CAPMU by March XX 2023.

The stakeholder virtual meeting was held on March XX 2023 to present the project activities within the Project and relevant ESMF provisions.

After consultations, the updated ESMF, final version for the Project was disclosed on both, national (PIU website) and WB website.

ESMF Consultations

In accordance with the consultation procedure, the stakeholder meetings were organized and held on March XX-XX, 2023 to present the project activities within AGGRI Project and relevant supporting documents, including ESMF provisions, SEP, LMP and ESCP.

Among the participants were representatives from the ….. and representatives of civil society. The participants were informed about objectives and components of AGGRI Project. The ESMF, SEP, LMP and ESCP provisions were presented to highlight the importance of these documents/instruments in assessing and addressing potential environmental and social risks and engaging the stakeholders.

During the public consultations, it was suggested that …….. Some aspects are contained in the …….

Although, the participants ……... The draft document was revised after the dissemination, taking into account outputs from the consultation process. See a summary of the issues raised during the consultations and the project response below.

After consultations, the updated ESMF, final version for the AGGRI Project was disclosed on both, national (CAPMU) and WB websites.

Annex 6. Project Activity Report Template

Name of the subproject *brief description of activity*	**Status of preparation of design documentation** *In progress/ Completed/Cleared by State Expertise*	**Status of ESMP** */ /public consultations*	**Grievances received during reporting period, subject of grievances, resolution status** (*pending / in process / resolved)*	**Current status of works** *(timeline for design work and start / completion of construction works, outstanding issues)*	**Site visits or other actions by government agencies (ecological, labor safety, fire safety etc.)** *(dates, findings, corrective action requests issued, follow-up actions)*	**Site visits during reporting period** *(dates, findings, corrective action requests issued, follow-up actions)*	**Next site visit planned** *(dates, specific issues to be checked)*