



Biosecurity Implementation Framework for the Management of Biological Resources in Moldova

Part I: Project Information

GEF ID

10982

Project Type

MSP

Type of Trust Fund

GET

CBIT/NGI

CBIT **No**

NGI **No**

Project Title

Biosecurity Implementation Framework for the Management of Biological Resources in Moldova

Countries

Moldova

Agency(ies)

UNEP

Other Executing Partner(s)

Ministry of Environment

Executing Partner Type

Government

GEF Focal Area

Biodiversity

Taxonomy

Focal Areas, Biodiversity, Access to Genetic Resources Benefit Sharing, Supplementary Protocol to the CBD, Influencing models, Transform policy and regulatory environments, Strengthen institutional capacity and decision-making, Convene multi-stakeholder alliances, Stakeholders, Type of Engagement, Beneficiaries, Gender Equality, Gender Mainstreaming, Gender results areas, Access to benefits and services, Knowledge Generation and Exchange, Integrated Programs, Capacity, Knowledge and Research, Enabling Activities, Knowledge Exchange, Knowledge Generation, Mainstreaming, Agriculture and agrobiodiversity, Protected

Areas and Landscapes, Terrestrial Protected Areas, Biosafety, Species, Threatened Species, Wildlife for Sustainable Development, Plant Genetic Resources, Illegal Wildlife Trade, Livestock Wild Relatives, Animal Genetic Resources, Crop Wild Relatives, Invasive Alien Species, Demonstrate innovative approaches, Participation, Partnership, Consultation, Information Dissemination, Civil Society, Community Based Organization, Academia, Non-Governmental Organization, Trade Unions and Workers Unions, Indigenous Peoples, Communications, Education, Awareness Raising, Private Sector, Individuals/Entrepreneurs, SMEs, Capacity Development, Participation and leadership, Access and control over natural resources, Sex-disaggregated indicators, Women groups, Learning, Adaptive management, Theory of change, Innovation, Targeted Research

Sector

Rio Markers

Climate Change Mitigation

Climate Change Mitigation 0

Climate Change Adaptation

Climate Change Adaptation 0

Duration

36 In Months

Agency Fee(\$)

83,433.00

Submission Date

4/12/2022

A. Indicative Focal/Non-Focal Area Elements

Programming Directions	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
BD-2-6	GET	439,121.00	800,000.00
BD-3-8	GET	439,121.00	800,000.00
Total Project Cost (\$)		878,242.00	1,600,000.00

B. Indicative Project description summary

Project Objective

Project Objective: To strengthen capacities to minimize, prevent and control the introduction and spread of Invasive Alien Species and the risks and adverse impacts of Living Modified Organisms in Moldova

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
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Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
Component 1: Update and harmonize the policy and regulatory regimes for effective management system on LMOs and control of Invasive Alien Species	Technical Assistance	<p>Outcome 1:</p> <p>An integrated and harmonized policy and regulatory framework[1],[2] [3]for Invasive Alien Species (IAS and LMOs Management in place</p> <p>[1] Biosecurity in the context of this project covers biosafety, food safety, zoonoses, the introduction of animal and plant diseases and pests, the introduction and release of living modified organisms (LMOs) and their products (<i>e.g. genetically modified organisms or GMOs</i>), and the introduction and management of <i>invasive alien species</i>. Thus, biosecurity is a holistic concept of direct relevance to the <i>sustainability</i> of agriculture, and wide-ranging aspects of public health and protection of the environment, including <i>biological diversity</i></p> <p>[2] Biosecurity is defined by FAO as a strategic and integrated approach that encompasses the policy and regulatory frameworks (<i>including instruments and activities</i>) for analysing and managing relevant risks to human, animal and plant life and health, and associated risks to the environment1. See https://www.greenfacts.org/en/biosecurity-fao-toolkit/1-2/index.htm</p> <p>[3] Biosecurity encompasses the prevention, eradication, control and other management activities for all types of IAS (pests, diseases, weeds, invasive animals and other organisms) as well as the control of LMOs, traditionally termed biosafety</p>	<p>Output 1:</p> <p>Integrated National Policy and Regulatory framework for management of LMOs and IAS</p> <p>Draft regulation on Liability and Redress in line with the Biosafety Law</p>	GE T	200,000.00	300,000.00

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
Component 2: Institutional capacities for Integration of Biosecurity in Biological resource management	Technical Assistance	Outcome 2: Institutional systems for decision making in an integrated biosecurity framework enhanced and strengthened	Output 2: Gender-responsive Risk Analysis frameworks with clearly defined guidelines and manuals developed to support monitoring and detection of LMOs and IAS. National capacities for DNA Bar-Coding Detection of genetic resources, bank of genetic resources and scientific collections strengthened	GE T	300,000.00	400,000.00

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
Component 3: Knowledge management, Public awareness, Education, Communication under a unified portal	Technical Assistance	<p>Outcome 3:</p> <p>An integrated mechanism for knowledge management, public awareness, education and information sharing on IAS and LMOs established and implemented</p>	<p>Output 3:</p> <p>Unified Portal for Information Sharing in line with the CBD's Integrated approach on Clearing Houses set up.</p> <p>National database and Registers for IAS and LMOs, including GIS mapping and spatial planning resources developed</p> <p>Ten thematic workshops organized for main stakeholders and beneficiaries, including women and gender experts (of about 150 people) on legal provisions</p>	GE T	150,000.00	400,000.00

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
Component 4: Establishment of a Monitoring and Evaluation measures for project delivery	Technical Assistance	Outcome 4: Effective project coordination and delivery, meeting measurable outputs and indicators	Output 4: Systems and structures for project management, accountability and monitoring of impacts established Mid-term and Terminal Evaluations undertaken Lessons Learnt and Best Practices prepared	GET	150,000.00	300,000.00
				Sub Total (\$)	800,000.00	1,400,000.00
Project Management Cost (PMC)						
		GET	78,242.00	200,000.00		
		Sub Total(\$)	78,242.00	200,000.00		

Project Management Cost (PMC)

Total Project Cost(\$)

878,242.00

1,600,000.00

Please provide justification

C. Indicative sources of Co-financing for the Project by name and by type

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
Recipient Country Government	Ministry of Environment	In-kind	Recurrent expenditures	1,600,000.00
Total Project Cost(\$)				1,600,000.00

Describe how any "Investment Mobilized" was identified

N/A

D. Indicative Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)	Total(\$)
UNEP	GET	Moldova	Biodiversity	BD STAR Allocation	878,242	83,433	961,675.00
Total GEF Resources(\$)					878,242.00	83,433.00	961,675.00

E. Project Preparation Grant (PPG)

PPG Required **true**

PPG Amount (\$)

44,793

PPG Agency Fee (\$)

4,255

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)	Total(\$)
UNEP	GET	Moldova	Biodiversity	BD STAR Allocation	44,793	4,255	49,048.00
Total Project Costs(\$)					44,793.00	4,255.00	49,048.00

Core Indicators

Indicator 4 Area of landscapes under improved practices (hectares; excluding protected areas)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
60000.00	0.00	0.00	0.00

Indicator 4.1 Area of landscapes under improved management to benefit biodiversity (hectares, qualitative assessment, non-certified)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
60,000.00			

Indicator 4.2 Area of landscapes that meets national or international third party certification that incorporates biodiversity considerations (hectares)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Type/Name of Third Party Certification

Indicator 4.3 Area of landscapes under sustainable land management in production systems

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Indicator 4.4 Area of High Conservation Value Forest (HCVF) loss avoided

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Documents (Please upload document(s) that justifies the HCVF)

Title	Submitted
Core Indicator Worksheet_Moldova_ Biosecurity PIF	

Indicator 11 Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female	700			
Male	500			
Total	1200	0	0	0

Provide additional explanation on targets, other methodologies used, and other focal area specifics (i.e., Aichi targets in BD) including justification where core indicator targets are not provided

At PIF stage, the number of estimated direct beneficiaries from the GEF investment is estimated to be 1,200 persons, disaggregated by gender as co-beneficiaries including about 700 women and 500 men. The total number of persons involved in this phase represents the staff of central environmental public authority and its subdivisions, local public authorities of selected communities, academia and universities, dedicated NGOs, students, media. The distribution of women in the Ministry of Environment is 75.5%, in the Environment Agency ? 52.4%, forestry Agency Moldisilva ? 46.6%. The improved practices under Core Indicator 4 (4.1) will focus on Agricultural/soya landscapes under improved risk management and related regulatory measures developed to support Biosafety Decision making. for of LMOs. This means the biosafety measures including risk management and liability and redress measures will be applied to soybean cultivators. This will help to support the management of potential adverse impacts which would lead to the management of potential adverse impacts and lead to sustainable use of biodiversity. Forestry landscapes under the improved management of IAS will include will focus practical IAS management measures which will be used and made accessible to to forest managers (Forest enterprises, Moldsilva Agency, LPAs). This includes early detection, risk assessment and management of IAS, mechanism of authorization of imports of IAS in order to prevent, combat or mitigate possible negative impact of IAS that would contribute to preservation of biodiversity. [4] Core Indicator 4.1 will include 50,000 ha of agricultural lands (soya cultivation), LMO management measures (risk assessment and risk management, liability and redress mechanisms in place), and forestry areas on 10,000 ha using IAS prevention, early detection and management measures) ? See locational information in Annex B. The proposed project interventions will contribute to BD-2-6 and BD 3-8 addressing drivers to protect habitats and species through the Prevention, Control and Management of Invasive Alien Species and the Implementation of the Cartagena Protocol on Biosafety. This will ensure tools, interventions and capacity is installed to support science-based decision making in the sustainable utilization of biodiversity through a coordinated Risk Analysis based approach to management of LMOs and IAS. The results and deliverables shall contribute to the new Post 2020 Global Biodiversity Framework especially Target 6 on Invasive Alien Species and Target 17 on Biosafety through safeguarding biodiversity, managing genetic resources and related benefits through sound science risk assessment, pre- and post- approval monitoring measures and engagement with the end users of genetic resources. It will also contribute to

Targets 20 ? 21 by ensuring informed and prior consent or Advanced Inform Agreements in the handling of biological introductions, inclusion and transparency in decision making with clearly defined roles for Indigenous and local communities.

Part II. Project Justification

1a. Project Description

1) the global environmental and/or adaptation problems, root causes and barriers that need to be addressed (systems description); 2) the baseline scenario and any associated baseline projects, 3) the proposed alternative scenario with a brief description of expected outcomes and components of the project; 4) alignment with GEF focal area and/or Impact Program strategies; 5) incremental/additional cost reasoning and expected contributions from the baseline, the GEFTF, LDCF, SCCF, and co-financing; 6) global environmental benefits (GEFTF) and/or adaptation benefits (LDCF/SCCF); and 7) innovation, sustainability and potential for scaling up.

Project scope and Context

In the Republic of Moldova, there are sporadic data and very limited legal provisions/instruments developed for an efficient management of Invasive Alien Species (IAS) and Living Modified Organisms (LMOs). Although some capacity was built for the management of LMOs to ensure biosafety, there are still poor capacities for specific procedures that ensure environmental risk assessment and management. The liability and redress principle according the *Nagoya Kuala Lumpur Supplementary Protocol* (NKLSPP) still has to be implemented via special mechanisms. This project is aimed to put in place policy, regulatory and institutional measures for management of IAS and LMOs as novel organisms through building of integrated capacities for biosecurity in Moldova.

To build an adequate management of IAS/LMOs, there is a need to overcome some constraints and institutional barriers such as: unclear division of responsibilities; low levels of interdepartmental cooperation; budgetary constraints; limited operational, regulatory and management skills; inadequate enforcement and compliance capability among others. Public awareness of the significance and value of biodiversity is very low. This lack of awareness results in public pressure and limited political support to expand and strengthen the IAS/LMOs management system in Moldova.

To address these **barriers**, the project has two interlinked objectives of developing an efficient framework for an integrated risk analysis based management approach to ensure an enabling framework for detection and efficient management of IAS/LMOs based on scientific risk assessment/risk management, and a workable mechanism for liability and redress for LMOs. These would prevent or manage potential adverse impacts of IAS/LMOs to biodiversity and natural ecosystems. It is also envisaged that a harmonized and coordinated approach to building human, institutional and regulatory capacity would be a cost-effective approach for developing regulatory frameworks across sectors for biosecurity, prevention and control of IAS and LMOs, and systems for value added biodiversity management anchored on the risk analysis approach as the scientific principles are clearly linked per the technical of focus of the project.

The Republic of Moldova is in the south-eastern part of Europe and occupies a land-locked hilly area. The territory of the Republic of Moldova is composed of two main natural areas: forest steppe and steppe. Almost 85% of the country's territory is agricultural land, while natural and semi-natural ecosystems is about 15%. The majority of the natural vegetation comprises of forest ecosystems. Meadow ecosystems, with rich genetic and species diversity, continue to be used for livestock grazing, and occupy about 10% of the country. Moldova is rich in species, and agri-forest biodiversity is dominant. There are 1,842 species of vascular plants and about 4600 species of inferior plants and fungi. These include 13 relict species, in the 3rd edition of [Red Book \(2015\)](#) there are 208 plant and fungal species and 4 species at the limit of natural spread. The diversity of plant species is particularly high in forests (over 850 species), meadows (about 650 species) and steppe remnants (over 600 species). In Moldova, there are about 16,540 animal species (461 vertebrates and over 16,000 invertebrates). These include 55 Ponto-Caspian relic species (of which 10% are endemic to the Black Sea Basin) and 219 species in the 3rd Red Book (2015). Although the greatest diversity of vertebrates is recorded in forests (172 species), 153 (89%) of these species are found in forests associated with meadows. Riverside corridors and wetlands are particularly important for migratory birds. The main natural ecosystems of Moldova are: (i) the forest (11.2%), (ii) the steppe (1.9%), (iii) aquatic areas (2.85%), (iv) petrified habitats (0.68%). The total area of the State Natural Protected Areas (km²) is 5.8% of the total territory of the country.

The value of ecosystem services in tourism, forestry, agriculture, fishing, water supply, climate change and disaster mitigation are estimated at just under \$21,986 million in 2011. In 2011, the quantified value of ecosystem services (taking only few sectors into consideration) equated to some 41% of GDP. Total Present Value (PV) of the Business-As-Usual (BAU) scenario is estimated at \$100,883.4 mills and for SEM scenario at \$110,745.7 mills. for the period of 2012-2036. ([The Economic Value of Ecosystem Services in Republic of Moldova, 2013](#)).

The Government of Moldova recognizes that it will not be able to set aside large enough areas in a Protected Area System (PAS) to conserve all species, ecosystems and ecological processes. Thus, as part of its response to addressing the threats to biodiversity, the Government has committed to establish a *National Ecological Network (NEN)* which will eventually cover 11,113 km² (~33% of the country's territory). The NEN emphasizes the importance of a landscape level approach as a mechanism to conserve ecological processes and patterns. The NEN comprises two component parts: (i) a *Protected Area System (PAS)* which function as 'core conservation areas' for the NEN; and (ii) different categories of productive areas (corridors, restoration areas and buffer zones) under conservation-friendly management regimes. The establishment and effective management of a system of protected areas is thus a cornerstone of the implementation of the NEN. The NEN provides for the designation of 207,002 ha of protected areas. A total number of 61 sites, 60 species and 30 habitats of the *Moldovan National Emerald Network* of natural areas of special protection have been adopted by the Standing Committee of the Bern Convention and at present are in the process of national approval, considering to be as part of the Pan-European Ecological Network and an extension of the *Natura-2000 Network*. The special conservation measures assume the development of biosecurity measures, conservation of genetic resources and land use planning as part of an integrative management.

Moldova's commitment to safeguard its biodiversity and sustainable use of its biodiversity led to the ratification and attainment of Party status to the *Convention on Biodiversity (CBD)* in October 1995, *Cartagena Protocol on Biosafety (CPB)*, September 2003, *Nagoya Protocol on Access to Genetic Resources and Benefit Sharing*, November 2016 and the *Kuala Lumpur Supplementary Protocol on Liability and Redress*, October 2018.

Moldova has undertaken important steps towards building its national capacities for biodiversity conservation, biosafety and control of Invasive Alien Species (IAS) to support the implementation of three objectives of the Convention on Biological Diversity. These measures include the development of its *National Environmental Protection Strategy 2014-2023 (NEPS)*, (2014), *The Republic of Moldova's Biodiversity Strategy and Action Plan for 2015-2020 (NBSAP)* (2015), *National Action Plan for the Implementation of UNCCD* (2015), *National Program on establishment of Ecological Network for 2011-2018* (2011), as well as the *National Strategy for Sustainable Development of Forestry Fund* (2011), *The Republic of Moldova's Climate Change Adaptation Strategy by 2020 and of the Action Plan for its implementation* (2014), and the *State Program on Forest Fund Areas Regeneration and Afforestation for 2003-2020* (2003). *The Sixth National Report of the Republic of Moldova to the Convention on Biological Diversity (2019)* has provided an assessment of efficiency of national policy and administrative measures, good practices in order to meeting the *Aichi Biodiversity Targets* and the *Sustainable Development Goals (SDG)*.

In its latest *National Biodiversity Strategy and Action Plan for 2015-2020 (NBSAP)* (2015), Moldova aligned its national strategy and actions to both the requirements of the *CBD Strategic Plan for Biological Diversity 2011-2020*, the *Strategic Plan for the Implementation of the Cartagena Protocol on Biosafety for 2011-2020*, the *Strategic Plan of the European Union for CBD until 2020 as well as the global Aichi Biodiversity Targets*.

Moldova is susceptible to three types of climate impacts: temperature increases; changes in rainfall regimes and increased aridity of climate, which are associated with the increase in the frequency and intensity of extreme weather events such as heat and frost, floods, storms with harsh rains, hail and severe droughts. Drought is the extreme climatic phenomenon that leaves the deepest economic and social impact. In the last decade, the effect of climate change on the development of the Moldovan forests has become evident. In 2010, according to aerospace silo-pathological research data, the total area of degraded and dry forest was 13.1 thousand ha. The most important risks posed by climate change are changes of the composition of trees species, forest restoration rate, increasing pest attacks, and phytosanitary risks.

The *Invasive Alien Species (IAS)* in Moldova represent an important challenge for biodiversity conservation. However, at present there are insufficient legal and administrative measures in place. One of the specific objectives (C) of the NBSAP is to implement measures to stop threats to biodiversity by 2020, which is planned to be implemented through measures to diminish the negative impact of Invasive Alien Species by the development of a study, a program and practical guidelines for prevention, control and management of invasive alien species. The invasive alien species are known to have negative impact on the biodiversity of Moldova. The invasion of synanthropic species in degraded natural ecosystems hinders the processes of restoring the natural biocenoses and affects their functionality. The excessive use of natural ecosystems has led to their fragmentation, considerable

reduction of the number and in some circumstances extinction of some species. The absence of rivals and the presence of free ecological niches create preconditions for the emergence of alien species and numerical growth of some native species, which, by their excessive development, may become invasive. Currently, invasive alien species are a major ecological issue and severe threat to domestic natural biologic resources management, which have a significant economic impact. Certain allogeneic species are introduced for commercial, ornamental, aesthetic or biological control purpose, while others are introduced unintentionally (contaminants, illegal trade). Some allogeneic species are widely used in forestry, for instance the acacia (*Robinia pseudo-acacia*) and in households. Others pose a threat to the domestic biodiversity by polluting the genetic resources, substituting valuable species, thereby causing considerable damage to the national economy (pests in agriculture and forestry). The recent invasion of the Ambrosia weed in Moldova is a case in point which is having an economic impact on agriculture, forestry and also human health.

There is a significant number of invasive alien species of plants and animals present in Moldova, estimated at 114 plant species (Moldova_Thematic Report on Alien Species to the CBD) and 150 animal species (The Sixth National Report to the CBD). About 130 species of invasive animal species damage agricultural crops, while 15 species damage forests. Many non-native species of animals were introduced deliberately, (raccoon dog, muskrat, dappled deer, pheasant, etc.). Over the years, it has been observed that the raccoon dog and the muskrat have become invasive species and the dappled deer proved to be dangerous for maintaining the native species of common deer.

In order to implement efficient management measures, it is necessary to initiate interventions to support updating and re-actualizing the inventory of invasive species in conformity with the IUCN requirements for creating prerequisites to reduce the impact of invasive species on the biological diversity, as well as ensure food security. It is also important to develop infrastructure capacity for monitoring of invasive species, to improve coordination and concerted actions between governmental agencies and other stakeholders for efficient prevention of their penetration to the natural ecosystems and mitigating possible impact to biodiversity.

In Moldova's NBSAP for the period 2015-2020, **Living Modified Organisms** have been identified as having potential threats to biodiversity and the stability of the ecosystems. The possibility of illegal transboundary movement of living modified organisms in Moldova is also highly expected as has been proven in both soybeans and corn products in the agricultural sector. The Government has continued to promote organic agriculture based on traditional breeding and biotechnology by approving its [National Strategy on Agriculture and Rural Development for the period 2014-2020](#). Since products derived from modern biotechnology have been in the international market for at least 10 years, it is likely that these might have entered in Moldova undetected and without risk assessment. Their impact on biodiversity and the environment in Moldova is not assessed. For example, the soybean at present is cultivated on the territory of approximately 60 000 ha and expected to be increased to approximately 100,000 ha in the country. The establishment of an efficient biosecurity system in line with international requirements is recognized as crucial for the management of potential adverse effects on sustainable development of biological resources and human health.

Moldova considers biosecurity as a national priority to reduce direct threats to biodiversity. According to the *Strategy on biological diversity and Action Plan for the period 2015-2020*, living modified

organisms can affect the natural ecosystems? biodiversity and they present a potential threat to ecosystems? stability. The possibility of illegal transboundary movement of living modified organisms in Moldova is highly expected, this have been proven in agricultural sector among soybeans and corn products. The assurance of an efficient biosecurity system, in line with international requirements is a crucial need to managing potential adverse risks on sustainable development of biological resources and human health. With regards to ensuring a safety approach based on risk assessment of LMOs in line with the international requirements, a number of important activities have been implemented during the last years in Moldova. Specific objective B (Section 3) of the NBSAP considers measures to reduce pressure on biodiversity to ensure sustainable development. There are also action plans in the NBSAP to ensure biosecurity, and to specifically (i) implement the Biosafety Framework in compliance with the *Cartagena Protocol* provisions, (ii) improve institutional capacities on Biosafety to ensure decision making process and monitoring of LMOs, (iii) develop procedures and capacity building for risk assessment/management within the permit procedures of LMOs, (iv) establish a Real Time-Polymerase Chain Reaction (RT-PCR) based detection and identification laboratory to ensure monitoring of LMOs, (v) develop mechanisms for liability and redress in biosafety.

.The Biosecurity Project of Moldova pioneers a harmonized approach to build coordinated institutional frameworks with a capacity to detect, eradicate, control and effectively manage introduced organisms (IAS and LMOs) that could pose a threat to biodiversity. The rationale behind managing IAS and LMOs under the same framework is the fact that the introduction of any new species in any ecosystem poses a risk, it is thus important to examine the impact of the organism through risk analysis of assessment of the species itself and of its introduction pathway(s). Although details of risk assessment and risk management may differ, the processes of IAS and LMO risk assessment have more commonalities than differences. Thus, implementing a harmonized approach can optimize the use of human and institution resources which are always in inadequate supply, especially in developing countries. Although limited capacity in areas such as traditional and molecular diagnostics/identification, risk analysis, inspection methods and integrated approaches to the management of biological invasions exists in Moldova, its limitation and insufficiency limits the implementation of an integrated cross-sectoral risk-based approach to biosecurity. A similar skill set is required to assess the risk and environmental impact posed by LMOs and other introduced species. However, a useful start in the building of systematic biosecurity capacity by the proposed project will constitute essential resources that can be used to roll out training to wider constituents

The redress and ecosystem recovery from accidental or unintentional transboundary movement of IAS and LMOs would also needed to be taken in ensemble, applying similar procedures of regulation and control. The project will be focused to establish common approach and mechanisms for IAS and LMOs accordingly, arising efficiency and less resource implication, including financial and human resources.

The redress and recovery from accidental or unintentional transboundary movement of IAS and LMOs would also need to be enhanced through the application ,of similar procedures of regulation and control. The project will be focused to establish common approach and mechanisms for IAS and LMOs accordingly, ensuring cooperation and efficient use of financial and human resources. A principle which has been defined as the Biosecurity approach as footnoted on page 1 of this PIF.

The Government of Moldova has established the Environmental Agency by its [Decision NO. 549 of 13.06.2018 RO, \(EN version\)](#) in June 2018. Among its functions include the conservation of biodiversity and management of state-protected natural areas and biosecurity.

The functions under the above decision indicate the government's efforts to a coordinated approach in the management of environmental challenges in Moldova. The project is thus designed bearing in mind the principle of coordinated and collaborative approach.

Gender considerations. Considering that Moldovan women play a major role in the conservation and use of biodiversity in national activities, the project will ensure that where stakeholders are involved, gender representation will be taken into consideration. Where possible on resource use and capacity development, gender-segregated data will be collected. In the identification of training participants, efforts will be made to ensure balanced representation of women and men. According to the statistics report, the country's population female/male ratio is of 52.6/47.4. At the beginning of 2021, there were ninety-one men per one hundred women. The national legislative framework for equality between women and men is in line with international commitments. However, implementation lags behind, and women still face discrimination and inequality in social, economic, and political life, lacking effective opportunities for participation in decision-making in public and private sectors. 39.6% of the members of Parliament are women, 21.83% of mayors, 36.51% of local councilors, and 27.08% of district councilors – far below international standards and the country's commitments under the nationally and internationally agreed goals. The share of women entrepreneurs is at 33.9% (as of 2017), with women who wish to start their own business facing many barriers.

The project will ensure coordination and collaborative approach with various categories of stakeholders and beneficiaries e.g. decision-makers, operational personnel and staff, laboratory personnel, researchers, community members, participants to the meetings, media people, farmers, private business people, consumers, who will be actively involved in all stages of project preparation and project implementation. The project will ensure that economic benefits for women and men would be equal. Both men and women will be involved in the design, implementation and decision-making processes and the most vulnerable, especially women, will be empowered through establishing a consultative mechanisms, awareness and access to information. Women will be benefiting from preventive measures of possible adverse effects on health and food security having in place precautionary rules based on risk assessment. This would provide better condition for women health and their kids, as well as women enrollment in production sector of employment. The mentioned stakeholders will benefit via building their capacity, based on sex-disaggregated targets setting in order to contribute to the transformation of their historically evolved gender-inequitable context.

The Problem

The *Sixth National report to the CBD* indicated a number of ongoing national capacity building initiatives which need to be coordinated in a coherent manner to enhance the implementation of the CBD and its implementing Protocols. There is also the need to develop specific biosecurity rules and procedures specific to Moldova. However, limited resources, lack of experience, inadequate national

expertise, lack of infrastructure have been identified as mitigating against Moldova's fulfillment of meeting its CBD international obligations.

Furthermore, there is a need to ensure an efficient biosecurity system in line with international requirements with the necessary legal and institutional capacities for preventing adverse effects on biodiversity and human health. Moldova is presently unable to fully enforce the national laws due to lack of appropriate infrastructure and skilled human resources for issues such as risk analysis of invasive alien species and risk assessment and monitoring of living modified organisms. The identified gaps in the sixth National Report show the need for specialized training for scientific personnel in order to maintain and sustain the national reference laboratory for detection of LMOs.

It is also envisaged that a harmonized and coordinated approach to building human, institutional and regulatory capacity would be a cost-effective approach for developing regulatory frameworks across sectors for biosafety, prevention and control of invasive alien species and systems for value added biodiversity management anchored on the risk analysis approach. The proposed project activities are also envisaged to contribute to enhancing and strengthening the existing National Biosafety Framework.

The Law on Biosafety 755/2001 is providing a general framework for biosafety in Moldova, and regulates LMOs uses for deliberative release into environment, research activities, import/export transboundary movement etc. The Ministry of Environment is the responsible body to promote policy in the field of biosafety, coordinate activities in respect of GMOs uses. By the Law, the National Biosafety Commission was established as an inter-departmental body representing the main sectoral governmental executive bodies in the field of environment, agriculture, health care, academia and NGOs. The Commission is responsible for examination of notification, evaluation of risk assessment and making recommendations and scientific opinion for decision making/authorization. A secondary level Regulation 1153/2003 on Authorization of activities linked to the LMOs obtaining, testing and marketing, provides specific mechanisms for notification, decision making process, public information and participation,

The new Law on regulation and control of GMOs, developed by the Ministry of Environment in 2022 and now is under the approval process (the Parliament has approved in the first reading in April 2022). The new Law has updated the institutional setting up in line with the governmental changes (Ministries and departments has been changed or modified). The new Law is intended to transpose the EU Directives 18/2001 on deliberative release of GMOs into environment, and prepared in accordance with the Moldova-EU Association agreement. The law further provides better clarity on the notification and authorization processes as well as the involvement responsible institutions in the decision making process, risk assessment, control over transboundary movement, unintentional release, liability and redress mechanisms. It is expected that the new Law would be finally approved by the end of the year and will be entering into force after two years from the day of approval. A number of secondary level specific regulations would be developed to ensure the enforcement of the law.

There are limited legal provisions in relation to Invasive alien species in Moldova. The Law on Vegetation and Low and Wild Animals provides some rules related the monitoring and research of IAS. Unfortunately, there is no adequate rules and practices to prevent or combat invasive alien species through an integrated and coordination and multi-stakeholders involvement. Monitoring and assessment of IAS is provided in a fragmented manner from time to time by the research institutions. There is no executive body, which provides for regular monitoring, database development, prevention and combating measures for IAS. There is no existing testing capacities for IAS in Moldova.

The establishment of an *Environmental Agency* (EA) in June 2018 presents an opportunity to coordinate measures envisaged in the project.

The successful completion and implementation of the project will bring the following positive environmental benefits: reduction/mitigation of biodiversity losses and contribution to attaining the *2020 Aichi Targets*, especially targets 7, 9, 11, 19, safeguarding against the potential risks of introduction and unintentional transboundary movement of LMOs and better access of local community to the ecosystem services etc.

The baseline scenario and any associated baseline projects: The project will be built upon the earlier initiatives e.g. the UNEP-GEF Project "Development of the National Biosafety Framework (NBF) for the Republic of Moldova" (2002-2004). The follow up UNEP-GEF project "Support for the Implementation of the draft National Biosafety Framework for the Republic of Moldova" (2006-2011) that assisted Moldova to strengthen the existing institutional and technical structures and infrastructure in accordance with the Cartagena Protocol and resulted in the establishment of general framework for biosafety in the country. In addition, Moldova has also implemented the UNEP-GEF project "Capacity Building for Effective Participation in the BCH" (BCHI and II) (2006-2008 and 2012-2014) by establishing the national node for the BCH system, and the SCBD project "Capacity Building to promote integrated implementation of the Cartagena Protocol on Biosafety and the Convention on Biological Diversity at the national level" (2016). The baseline information and key lessons from this project is useful to guide the design of this project. The proposed project is in line with decision BS VII/5 para 5 "Encourages Parties to explore the possibility of incorporating biosafety activities into multi-focal-area projects, including the proposed "integrated approach pilots", as well as projects to be developed under the other biodiversity focal area programs" and supports mainstreaming into related ecosystem management practices and ecological farming. The NORAD Norway project: "CEE Regional Biosafety Course on Integrated risk assessment of LMOs under the Cartagena Protocol on Biosafety" (2016) supported to strengthen the capacity for decision makers and risk evaluators in the region. The CBD project "Capacity-building to promote integrated implementation of the Cartagena Protocol on Biosafety and the Convention on Biological Diversity at the national level" (2016) is undertaking a study and revision of national (NBSAP and sectorial) policy related to Biodiversity and Biosafety to mainstreaming biosafety at national level.

Important activities have been implemented during the last years in Moldova include the revision and adoption of a new *National Biodiversity Strategy and Action Plan for 2015-2020* (NBSAP) (2014) that provides political engagement to ensure management and control of LMOs and IAS in the country in line with international requirements. The VIth National Report of the Republic of Moldova to the CBD was supported by the Global VI NR project managed by the UNEP/GEF project (2018-2019). The preparation of the Moldovan IVth National Report to the Cartagena Protocol on Biosafety was supported by the UNEP/GEF technical assistance project (2021). A number of successful previous initiatives have been undertaken to build national capacities for biodiversity conservation and ensure biosecurity. Among them it is important to mention the main baseline activities and results that are related to the objective of the project:

? UNEP/GEF project ?Support to Preparation of the Fourth National Biosafety Reports to the Cartagena Protocol on Biosafety for Moldova? (2021). The 4th National Report of the Republic of Moldova prepared, consulted and submitted to the SCBD/Cartagena Protocol via the BCH platform.

? UNEP/GEF project ?Support to Produce the Sixth National Report to the Convention on Biological Diversity (CBD)? (2018-2019). The Sixth National Report to the CBD prepared and submitted to the CBD. It contains an analysis of the efficiency of the national measures to achieve the Aichi Biodiversity Targets. Gaps, weaknesses and suggestions has been elaborated.

? GEF/UNDP project ?National Biodiversity Planning to Support the implementation of the CBD 2011-2020 Strategic Plan in Republic of Moldova? (2013-2015), the National Biodiversity Strategy and its Action Plan was developed and approved for the period of 2015-2020 and includes provisions for IAS and LMOs regulation and capacity building.

? CBD Project ?Capacity-building to promote integrated implementation of the Cartagena Protocol on Biosafety and the Convention of Biological Diversity at the national level? (2016). The overall aim of the project was strengthening the capacity of the country to develop and test practical measures to promote integrated implementation of the Cartagena Protocol on Biosafety (CPB) and the Convention on Biological Diversity (CBD). A roadmap on improving the integration of biosafety into NBSAPs and other relevant sectoral and cross-sectoral plans, policies and programmes, resource mobilization plans and national budgets; establishing or strengthening national inter-sectoral coordination mechanisms to facilitate a coordinated approach to the implementation of the Convention and the Protocol has been agreed.

? WorldBank/GEF project "Moldova Agriculture Competitiveness Project" is enhancing the competitiveness of the agro-food sector by supporting the modernization of the food safety management system, facilitating market access for farmers, and mainstreaming agro-environmental and sustainable land management practices.

There are specific interventions and outputs of the mentioned above relevant projects that are related to the proposed new task and are part of the baseline scenario. There are several important categories of outputs that are related to management of biological resources: development of the *National*

Biodiversity Strategy and Action plan, as a policy document, which involve access to genetic resources, threats from the invasive species and biosafety as national priority areas.

Biosecurity in the context of this project proposal covers biosafety, food safety, zoonoses, the introduction of animal and plant diseases and pests, the introduction and release of living modified organisms (LMOs) and their products (e.g. *genetically modified organisms or GMOs*), and the introduction and management of invasive alien species. Thus, biosecurity is a holistic concept of direct relevance to the sustainability of agriculture, and wide-ranging aspects of public health and protection of the environment, including biological diversity. Whereas biosafety aims at protecting public health and environment from accidental exposure to biological agents, biosecurity deals with the prevention of misuse through loss, theft, diversion or intentional release of pathogens, toxins and any other biological materials, including IAS, unintentional or uncontrolled release of LMOs, synthetic biology via gene drive etc. The scope of the National Biosecurity Framework would establish an efficient system of regulation of LMOs and IAS as part of the Integrated biosecurity system, and it would gradually replace the National Biosafety Framework, having a larger context and complexity approach for biodiversity conservation. The idea of the project is to tackle in a joint framework IAS and LMOs resulting from modern biotechnology in new National Biosecurity Framework with a larger scope of multi-component system to ensure measures aimed at preventing the introduction and/or spread of harmful organisms (e.g. viruses, bacteria, etc.) to animals and plants in order to minimize the risk of transmission of infectious disease. In agriculture, these measures are aimed at protecting food crops and livestock from pests, invasive species, and other organisms not conducive to the welfare of the human population. The term includes biological threats to people, including those from pandemic diseases and bioterrorism. The definition has sometimes been broadened to embrace other concepts, and it is used for different purposes in different contexts. The COVID-19 pandemic is a recent example of a threat for which biosecurity measures have become pivotal.

Important activities have been implemented during the last years in Moldova in relation to improve the gender equality and empowerment. Moldova 's accession to the 2030 Agenda and the nationalization of SDG goals , including SDG 5 Gender equality, 2015. Law No. 121/2012 on Ensuring Equality. The existent policy framework in the field of gender covered through the Law No. 5/2006 on Equality of Opportunities for Men and Women. The Strategy for ensuring equality between women and men in the Republic of Moldova for the years 2017-2021 and of the Action Plan (GD Nr 259/2017).

A number of programmes/projects has been implemented in Moldova during the last period that contributed to increasing role of women and ensuring their equality in society. Among them:

- ? WAGE program on Reducing Barriers to Women's Economic Empowerment in Moldova, 2021;
- ? UNICEF-EVA project - strengthened gender action in Cahul and Ungheni districts, 2020;
- ? Council of Europe project ?Awareness-raising activities on the Istanbul Convention in the Republic of Moldova, 2020-2021;

? European Union/Council of Europe joint programme Partnership for Good Governance, and its regional project ?Strengthening access to justice for victims of discrimination, hate speech and hate crimes in the Eastern Partnership, 2021 contributed to develop a CoE Action Plan for the Republic of Moldova for 2021-2024, approved by the Council of Ministers;

? UNDP project Sustainable and resilient development through women empowerment, 2021-2023.

Gender sensitiveness is being considered as a key element in a number of Moldovan initiatives as for social dimension as well as for biodiversity and climate change adaptation dimensions.

Therefore, GEF financial support for this new phase capacity building project on integrated management of IAS and LMOs with a biosecurity lens is crucial. With GEF intervention, the baseline studies included in this project will provide guidance to activities, outputs and outcomes needed under each specific component of the project. This GEF-funded project will complement and reinforce the ongoing national capacity building initiatives to integrate international experience, expertise and best practices into Moldovan system of management of biological resources in order to fulfill commitments under CBD and CPB as it relates to the three objectives of the CBD in the primary focus of sustainable utilization of Biodiversity.

The **incremental reasoning** for this project will be especially elucidated in such critical areas as scientific environmental risk assessment and management, including socio-economic risks, detection and identification of LMOs/IAS, involving public communication and ensuring better access to ecosystem services. The project activities will impact positively on the reduction of biodiversity losses and maintain stability of natural ecosystems.

The proposed **baseline scenario** and a brief description of expected outcomes and components of the project: The Republic of Moldova project is aligned with GEF-7 Biodiversity Strategy in the context of Mainstreaming biodiversity across sectors as well as landscapes and seascapes, focusing to sustainably managing biodiversity in productive landscapes and seascapes and ensuring that any impact caused by productive sectors on biodiversity is avoided, or substantially reduced or minimized; supporting the complete and effective implementation of the *Cartagena Protocol* and its *Nagoya Kuala-Lumpur Supplementary Protocol* especially in the transboundary movements and engagements involving biological diversity. Such practices generate global environmental benefits while creating local and national socio-economic benefits.

The Government of Moldova is fully aware of the problems affecting biological resources in the country and in the context of global threats, however, do not feel fully empowered to resolve them. At present there are insufficient legal, institutional capacities, financial and human resources available, including gender sensitiveness values, to respond to the new challenges through efficient mechanisms and practices.

The alternative provided by this GEF project will enhance global biodiversity benefits, as well as multiple national and local co-benefits, arising from the sustainable, accessible, and innovative use of biodiversity in Moldovan ecosystems. The difference between the baseline and the project scenarios is

as qualitative and quantitative and imply to undertake immediate measures of advanced conservation approaches into biodiversity management system for IAS and LMOs in Moldova. **At the moment specific policies and instruments for management of LMOs/IAS are either missing or inadequate, the baseline course of action depicts an outdated data, monitoring and decision-making systems on IAS and LMOs in Moldova.**

In a sustainable perspective it will not be possible to establish an integrated management system for IAS and LMOs in the country, without the project support. The baseline scenario, therefore, will see the continuation of biodiversity and ecosystem degradation in the country. With a US\$ 1 million investment, the GEF project brings policies, and the biodiversity innovative integrated technologies and instruments to develop an efficient management and reach the conservation goals

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Global benefits.

Project activities are oriented to fulfill some of the strategic objectives as reduction of threats to biodiversity, including adverse risks from IAS and potential adverse effects on LMOs which will promote sustainable use of biodiversity.

The following ***barriers*** currently impede the ability of the responsible institutions, to effectively build biosecurity to conserve biodiversity:

There are sporadic data and limited legal provisions/documents developed for IAS and LMOs management at the country level. Although capacity was built in the management of LMOs to ensure biosafety, there are still limited capacities for specific procedures that ensure environmental risk assessment and management. The liability and redress principle according to the *Nagoya Kuala Lumpur Supplementary Protocol* has to be implemented via special mechanisms. This project is aimed to join efforts for management of biological introductions including IAS/ LMOs through building of integrated capacities for biosecurity in Moldova. As mentioned in previous sections, there is need for an inventory of the IAS, improved legal framework and building capacities to enable national authorities to detect, evaluate the risk and take mitigation measures for the management of IAS/LMOs impact on biodiversity. There is also the need to develop operational guidelines for mitigation of IAS/LMOs impacts on environment and human health, as well as is desirable to elaborate operational manuals on handling the IAS/LMOs, especially on their detection, identification, risk assessment and management, monitoring and decision-making systems.

The situation of the regulatory framework is reflected also in the institutional sectors being emphasized the weaknesses of central public authorities for adequate management of LMOs/IAS, such as: unclear

division of responsibilities; low levels of cooperation; inadequate staffing; budgetary constraints; limited operational and management skills; inadequate enforcement and compliance capability among others. The capacity to develop detailed strategic and operational plans to ensure the cost-effective deployment of institutional and human resources is particularly weak in the local authorities. Capacity will need to be strengthened within all responsible bodies for LMOs/IAS management at the level of the Central Public Authorities (CPA), Environmental Agency (EA) and Local Public Authorities (LPA) management institutions and their subordinated bodies, farmers and environmental specialists as well as general public. Public awareness of the significance and value of biodiversity is extremely low. This lack of awareness means that there is little public pressure and limited political support to expand and strengthen the LMOs/IAS management system in Moldova.

To address these barriers, the project has two interlinked objectives of developing an efficient framework for integrated management of IAS and LMOs to ensure an enabling framework for detection and efficient management of LMOs/IAS based on scientific risk assessment and mechanisms for liability and redress for LMOs to biodiversity and natural ecosystems. This will be done through support in development of national clear and transparent legally binding framework, as well as institutional framework for implementation of international agreements and support strengthening of the relevant capacities. The project will seek to increase public awareness and enhance understanding of integrated management system for IAS and LMOs, to be widely and easily perceived by a range of stakeholders and efficiently applied in practice.

Project Development Objective: To strengthen capacities to minimize, prevent and control the introduction and spread of Invasive Alien Species and the risks and adverse impacts of Living Modified Organisms in Moldova.

Project Components and Expected Outcomes:

Component 1. Update and harmonize the policy and regulatory regimes for effective management of Living Modified Organisms (LMOs) and control of Invasive Alien Species (IAS)

Outcome 1: An integrated and harmonized policy and regulatory framework for Invasive Alien Species (IAS and LMOs Management in place:

Under this component, policy and regulatory measures will be established to create policy and legal certainty in the management of IAS and LMOs guided by a **gender responsive policy, regulatory and risk analysis approach** in the sustainable utilization of Moldova's biodiversity. There will be a National Biosecurity Policy and Regulatory Framework which will have measures on Invasive Alien Species and regulations on Liability and Redress in line with the Biosafety Law. All the laws and regulations

will be formulated to be in harmony with existing laws and regulations and harmonized policies developed. There would be national consultations on the implementation of all the laws and sensitization parliamentarians in readiness for the debate of the laws and regulations. The National Biosafety Framework will be reviewed and updated to a National Biosecurity Framework.

Component 2. Institutional capacities for Integration of Biosecurity measures in the management of IAS and LMOs

Outcome 2 Institutional systems for decision making in an integrated biosecurity framework enhanced and strengthened

The component on supporting government agencies with operational capability to manage major pathways (including monitoring, **gender responsive risk analysis**, laboratory detection, emergency response) of IAS and LMO introduction would be identified and strengthened. National capacities for DNA Bar-Coding Detection of IAS and LMOs, bank of genetic resources and scientific collections would be enhanced to develop in-country research capability on IAS and LMOs. **The envisaged outputs on risk analysis framework will be designed with gender responsiveness as a cardinal principle in its operational usage.**

The instruments to consider socio-economic assessment in decision making will also be addressed. Special financing would be provided for (i) improved capacities and skills for risk assessment and risk management, including socio-economic assessment of LMOs in line with the *Cartagena Protocol and the Convention on Biological Diversity*, that will be achieved through regulatory and procedural reforms, improved infrastructure and trainings and **gender considerations**; (ii) improved monitoring system of possible environmental impact derived from novel organisms, including gene flow assessment to prevent loss of biodiversity, including traditional crops diversity; (iii) strengthening and upgrading the technical capacities of designated reference laboratory for detection and identification of modified organisms to ensure monitoring and decision making.

Component 3. Knowledge management, Public Awareness, Education, Communication under a unified portal

Outcome 3: A coordinated mechanism for knowledge management, public awareness, education and information sharing established for and among the IAS/LMOs:

The *National Biodiversity Clearing House Mechanism* (CHM) would be updated in response to the Unified Platform for information sharing under the CBD to cover information sharing obligations under the Clearing Houses in line with COP Decision 14/25. National database and Registers for IAS and LMOs, including GIS mapping would be developed. There would also be awareness raised among key stakeholder groups on risks, impacts and management of IAS and LMOs and laboratory personnel will be shifted to the application of risk assessment tools, detection, and identification of all new biological introductions as part of monitoring and safeguarding biodiversity.

Ten thematic workshops organized for main stakeholders and beneficiaries, including **women and gender experts** (of about 150 people) on legal provisions including liability and Redress procedures, monitoring and management mechanisms, preventive actions on the management of IAS and LMOs.

The potential target audience will focus on participation of governmental sectoral bodies, academia, private sector, farmers and professional associations, women associations and NGOs, local communities, consumers, youth, media.

Component 4. Establishment of a Monitoring and Evaluation measures for project delivery

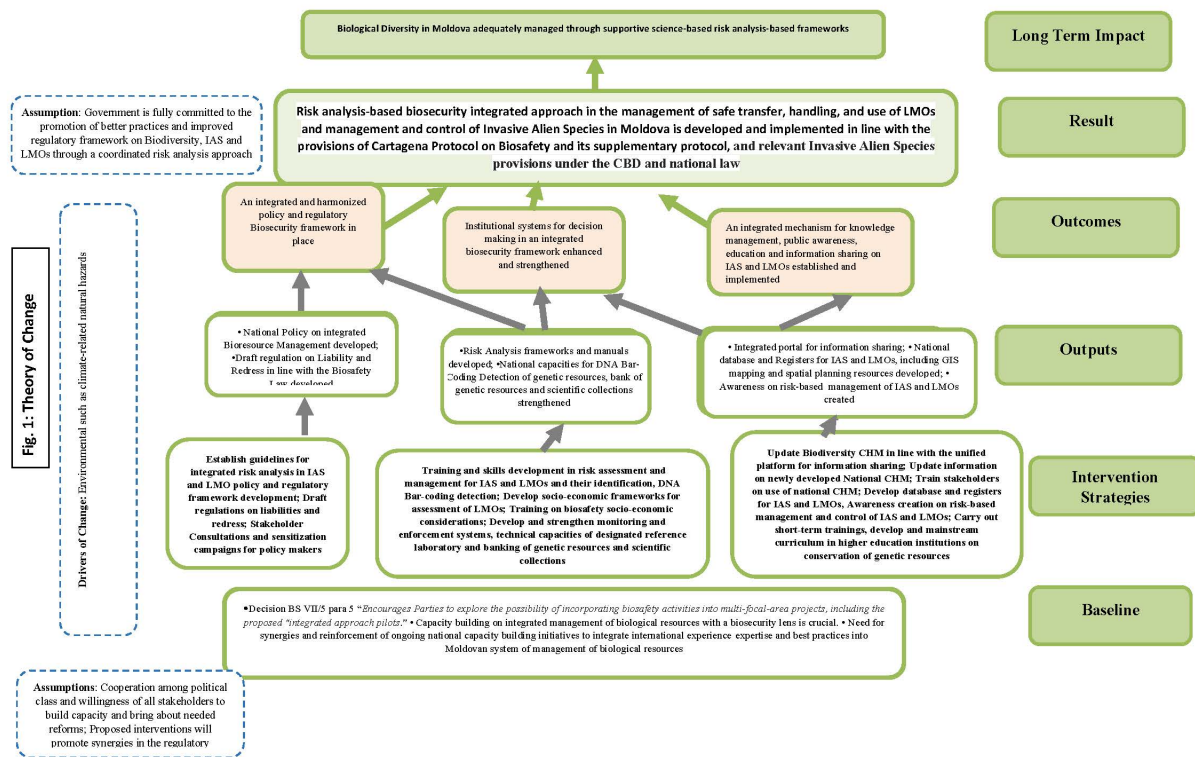
Outcome 4: Checks and balances built into the implementation of the project to assess impacts and mitigate risks

- i. UNEP will be the Implementing Agency who will have its role to overall supervision and support in accordance with the GEF and UNEP rules and procedures, financial planning and reporting process.
- ii. The Ministry of Environment (MoE) will be the Executing Agency through a national inter-agency task force to facilitate in-country coordination and multi-stakeholders' representation across sectors to ensure their input to IAS and LMOs management. The Government of Moldova intends to leverage GEF resources to complement their ongoing activities and facilitate effective implementation of the CBD, CPB conventions. All efforts will be made to ensure synergy between the ongoing projects/programs, avoiding overlaps and optimize the available resources. and provide an overall administrative coordination of project activities in accordance with the national legislation and international agreements, interdepartmental collaboration, and multi-stakeholders involvement in the project implementation.
- iii. Effective project implementation will be provided through establishment of a Project Steering Committee (PSC), chaired by the Ministry of Environment (MoE), with members from relevant agencies. The PSC will review the project twice a year and will work closely with various ongoing initiatives carried out by other Ministries and stakeholders. The Project Steering Committee will ensure a good coordination between governmental bodies and stakeholders. The project is in line with a series of ongoing capacity building initiatives implemented by a number of relevant ministries and departments in Moldova, namely: Ministry of Health, (MoH), Ministry of Education and

Research (MoER), Environmental Agency (EA), ?Moldsilva? Forest Agency (MFA), Inspection for Environmental Protection (IEP), National Agency for Food Security (NAFS), National Biosafety Commission (NBC), Academy of Sciences of Moldova (ASM), research institutes and universities with biological and agricultural profile - Institute of Genetics, Physiology and Plant Protection, Institute of Botany (Botanical Garden), Institute of Zoology, Institute of Ecology and Geography, Institute of Forestry Management, Moldovan State University, Agrarian State University, et others.

At completion of the project, an integrated management system would be established in Moldova that responds to the sustainable use of biodiversity, control and prevention of Invasive Alien Species and to ensure an adequate level of protection in the field of the safe transfer, handling and use of living modified organisms (LMOs).

The project is conceptualized as depicted through the attached Theory of Change (See Figure 1).



Incremental/additional costs reasoning and expected contributions from the baseline, GEFTE and co-financing: This project will be cost effective due to the following reasons: project is focused on needs and gaps identified previously, so as to avoid duplication; this project will be logical continuation of previously implemented projects and national initiatives in biosafety, biodiversity and land degradation sectors. The project will have a thematic and a multi sectoral approach to ensure a

comprehensive management of Invasive Alien Species and LMOs and its impacts on sustainable use and conservation of biodiversity.

The NBSAP, the *Sixth National Report to the CBD* and the *Fourth National Report to the CPB*, will contribute to further implementation of the Biodiversity policies through a number of focused actions on the scientific risk assessment/management decision making on LMOs and IAS. Efforts will be made to enforce participation and coordination in the management to IAS and LMOs through the risk management and monitoring measures of IAS/LMOs. The project has adopted an issue-based and country-specific approach in its capacity building, focusing on risk assessment and risk management, including socio-economic risks, detection and identification of LMOs/IAS, monitoring, prevention/management of IAS and management of potential adverse effects of LMOs.

. It will be giving attention to the issues of public awareness, education and training on Biosecurity. This approach will integrate institutional and cross-sectoral issues to build sustainable national capacity in risk analysis to support the management of IAS and LMOs. . In this way, cost-effectiveness of the project will be ensured, due to the synergism of human, financial, administrative resources and targeted efforts, by integrating biosecurity measures in the prevention, control and management of IAS and management of LMOs as novel biological introductions. In-kind contribution will be provided by the Government through training activities, national reports and databases, office premises and facilities, involvement of national experts and authorities, coordination of governmental bodies involvement, negotiation process at national, regional and international level, laboratory facilities, approval process for regulatory documents, survey and assessment of biosafety state and country's needs, partnership with NGOs and civil society.

According to the Inequality Study Moldova (SDS, 2022), 47% of the population of the Republic of Moldova belong to a vulnerable social class and find it difficult to cover their expenses for what is strictly necessary. If the incomes of some poor people increase, this is due to remittances. The study shows that the most affected by poverty are the elderly, especially women. The proposed project recognizes the importance of involving women in setting up and implementing the National Biosecurity Framework processes because women play a critical role in assessing genetic resources both at the farm level, the marketplace and trade across borders with neighboring countries. Women in the case of Moldova depend heavily on the use of natural resources therefore ensuring gender equity will benefit all including women and men in the balanced allocation of resources, involvement and decision-making will result in greater incomes and overall well-being for all persons ? women, men, youth and local communities will support efforts on conservation and sustainable use of biological resources.

Global environmental benefits and/or adaptation benefits: Project activities are oriented to contribute to the implementation of the GEF-7 biodiversity focal area strategy through interventions to support maintenance of globally significant biodiversity.es. Focal area II. Address direct drivers to protect habitats and species. D. Prevention and control of invasive alien species. Focal Area III. Further develop biodiversity policy and institutional framework under H. Implement the Cartagena Protocol on Biosafety.

The proposed project is aiming to assist Moldova to implement its obligations as Party to the *UN CBD*,

the Cartagena Protocol on Biosafety and its Nagoya-Kuala Lumpur Supplementary Protocol on liability and redress, and contribute to Targets 6, 17, 20 -21 of the Post-2020 Global Biodiversity Framework through an improved management system to control and prevent risk of invasive species that will reduce threats to biodiversity and natural ecosystems. Special efforts will be made for implementation *the Post 2020 Biodiversity framework actions on Invasive Alien Species and the Post 2020 Strategic Plan for the Implementation of the Cartagena Protocol on Biosafety for 2021-2030* as envisaged in the Post 2020 Biodiversity Framework. These efforts are in line with the national policies in the mentioned fields, and specifically, the *National Biodiversity Strategy and Action Plan 2015-2020* (2015) and the *National Strategy of Environmental Protection 2014-2020* (2014). *The 6th National Report to the CBD* (2019) provides an assessment of efficiency of national measures addressed to implementation of the CBD provisions, identifies new issues and gaps to be addressed in the next period. The project will assist the national government to improve the existent legal and procedural mechanisms to control new biological introductions and reduce their potential adverse impact to biodiversity. A new regulatory framework will be developed in line with the international provisions to increase security from IAS and LMOs, their early laboratory detection and testing, using innovative technologies and research techniques. Risk assessment procedure and authorization mechanisms based on scientific information and new developments will be established: human resources and capacity in Biosecurity measures will be enhanced through the planned training activities. **A Safeguards system and emergency response will set up with clearly defined rules to guide decision making. Liability and redress mechanisms will be developed and implemented. This project will contribute to reducing the rate of losses of biodiversity through early detection and efficient control from unintentional or illegal transboundary movement of IAS and LMO species.**

Innovativeness, sustainability, and potential for scaling up: The project will promote the innovative and integrated management approaches and procedures based on the latest scientific evidence, knowledge and methods in the field of biosecurity and a risk analysis/environmental safeguards approach to natural resource management. The risk assessment/management and capacity building will involve the newest knowledge according to the Guidelines and the Roadmap on Risk Assessment, developed by the AHTEG under the CPB. National capacities for DNA Bar-Coding Detection of genetic resources and IAS, bank of genetic resources and scientific collections would be enhanced to develop in-country research capability on IAS. The innovative training modules for risk assessment will be used to raise professional capacities of risk evaluators. The CHM and BCH portals and training modules and case studies will be used to develop human resources and support decision making and public information and participation. The Geographical Informational System (GIS) maps of Ecological Networks (EN) will be used for ecosystem management planning. The project, while addressing urgent and immediate domestic issues related to Biosecurity, will take full consideration of the improving use of natural resources with an impact on improved livelihoods in rural areas of Moldova. Considering the complexity of biosecurity issues, the project will use an integrated, thematic and cross-sectoral approaches, within the framework of sustainable development at the national and local levels, having positive impact to conservation of biodiversity and landscapes, development of democracy, ensuring food security in Moldova. After finishing of the project, the sustainability of the

outcomes will be ensured by the follow-up activities supported by the government, based on the capacities built during the project implementation phase. The key innovativeness is the integrated approach to implementation of the Convention and its Cartagena Protocol. The tools and capacities attained will be sustained through coordinated and multi sectoral approaches on natural resource management. The lessons and capacities achieved can be scaled up and replicated within the Central and Eastern Europe region.

1b. Project Map and Coordinates

Please provide geo-referenced information and map where the project interventions will take place.



GEOGRAPHIC COORDINATES: 45°27' - 45°27' Nord (350 km), 26°39' - 30°05' Est.

2. Stakeholders

Select the stakeholders that have participated in consultations during the project identification phase:

Indigenous Peoples and Local Communities Yes

Civil Society Organizations Yes

Private Sector Entities Yes

If none of the above, please explain why:

N/A

In addition, provide indicative information on how stakeholders, including civil society and indigenous peoples, will be engaged in the project preparation, and their respective roles and means of engagement

A series of consultations with the key stakeholders have been held on the objectives and main activities of the project proposal. The project concept note and the PIF has been discussed at a meeting organized by the Division on Biodiversity Policy of the Ministry of Agriculture, Regional Development and Environment. During the PIF preparation phase, specific updated information has been collected by the local experts from the State Forestry Agency ?Moldsilva? (SFA), Environmental Protection Agency (EPA), National Agency for Food Security (NAFS), as well as a number of focused scientific research institutes in the field of botany, zoology, genetics, microbiology, ecology, crop sciences etc., based on their scientific and thematic reports. The educational sector has been contacted as well and provided with specific information on the current and future policies and educational programs in the related area of topics. The draft concept note and the PIF has been delivered via emails to the main mentioned stakeholders, including the National Commission on Biosafety, National Farmers Federation, IFAD, ACSA (agriculture extension services), SGS Moldova consultancy services, local public administration of selected raions (Cahul, Orhei, Soroca), NGOs (Biotica, Eco-Tiras, Ecospectru, Centru Consultanta ecologica Cahul, etc.) , and updates has been incorporated in the final version based to the comments and suggestions received.

Table 1. The main stakeholders of the project

Stakeholders	Potential roles
Governmental Ministries (multi-sectorial)	Involved in the Project Steering Committee, development policy and regulatory instruments and institutional capacities and technical execution of project activities
Academia (universities & research institutes)	Technical support in the development of guidelines and operational manuals on scientific risk assessment and risk management, delivery of training

Regulatory agencies	Development of monitoring and enforcement, detection, emergency response and risk management instruments and contribute to capacity building on regulatory oversight
Private sector, farmers, local administration	Involved in activities on public awareness, biosecurity communication and participation and potential material/technology transfer and product development activities Farmers and local communities will be involved in demonstrational pilot projects on good farming practices, as base for biosecurity measures
Women, youth and civil society	Women, youth will be involved in decision making on LMOs/IAS, monitoring and control activities, as well as in information and communication networking. NGOs and local communities will play a partnership/collaborative role in sensitization, education and will be associated with most activities especially the development and dissemination of communication tools.

The main stakeholder is the Ministry of Environment (Mo E). Mo E has extensive experience in successfully implementing UNEP projects, and it will mainly be responsible for Components 1, 2 and 3. Ministry of Environment is the country's GEF focal point and the National Authority for biodiversity conservation and biosecurity/biosafety. It has a significant experience in executing GEF-funded projects. The project implementation will be strategically guided by a National Steering Committee (NSC). An existing management entity will serve as a fiduciary agency and provide support for general coordination of implementation, procurement, financial management and monitoring and evaluation. Other governmental stakeholders are: Ministry of Health (MoH), Ministry of Education and Research (MoER), Ministry of Labor and Social Protection (MoLSP), Environmental Agency (EA), "Moldsilva" Forest Agency (MFA), National Agency for Food Security (NAFS), National Agency for Social Assistance (NASA), Academy of Sciences of Moldova (ASM), that will contribute to regulatory and institutional setting up for the IAS and LMOs management frameworks, as well as to the development of guidelines and training activities.

Research institutions in the field of conservation and sustainable use of genetic resources, as example Institute of Genetics, Physiology and Plant Protection, Institute of Botany (Botanical Garden), Institute of Zoology, Institute of Microbiology and Biotechnology, Institute of Ecology and Geography, Institute of Field Crops "Selectia", Institute of Horticulture and Food Technology, Institute of Forest Management, State University of Moldova, State Agricultural University will benefit from the project activities through enforcing their institutional, technical and scientific capacity in the management of IAS and LMOs.

The Forestry Agency "Moldsilva" and the Agency "Apele Moldovei" responsible for water management will improve national capacities for monitoring and control of Invasive Alien Species in the protected areas and terrestrial and water natural ecosystems in Moldova.

The Inspection for Environmental Protection (IEP), Environmental Agency Protection, National Agency for Food Security (NAFS), Customs Control Services (CCS), National Biosafety Committee (NBC) will participate for ensuring the identification, detection and monitoring of transboundary movement of IAS and LMOs as part of integrated management system for biologic resources.

The SGS Moldova private consultancy services organization will be involved in offering consultancy and detection of LMOs services to farmers and other stakeholders. The National Farmers Federation, National Agency for Rural Development (ACSA), IFAD will contribute for public information and awareness in the field of LMOs management and risk prevention.

Consulting Agency Business sector representing agricultural cultivators of corn and soybean in Moldova, importers/exporters of agricultural crops and feed for animals will be involved in the policy and legal consultation and training activities to improve their knowledge and understanding of international and national rules and approaches in biosafety.

Project stakeholders also include rural households, farmers, private business, rural advisory services, scientific institutes, private business, producer's groups/associations, local and international NGOs. The Ecological Movement NGO, EcoContact, Biotica NGO, ECO TIRAS International association will be involved in public information and training activities to ensure decisional transparency and participation. The project will work closely with the women civil society and women private sector. The non-governmental sector focused to gender issues, as Women Association for Environmental Protection and Sustainable Development, the Women Organisation of the Truth and Solidarity Party, Moldovan Women Association etc., will be involved in the project activities, trainings, public awareness campaigns, educational and mediatisation actions etc. The gender sensitiveness and implication, increasing role of women in legislative and policy design and capacity building will be promoted and supported by the project.

3. Gender Equality and Women's Empowerment

Briefly include below any gender dimensions relevant to the project, and any plans to address gender in project design (e.g. gender analysis).

Gender balance and participation will be supported within the project activities during the PPG phase by ensuring women to have a proactive participation and initiative in capacity building on biosecurity issues, ecological management of protected areas and ecological secure farming as well as in communication and networking. A gender action plan or equivalent will be developed, and a gender specialist will be part of the PPG team.

Gender issues is still an actual subject in Moldova that has to be improved. According to an international evaluation regarding the level of implementation of gender equality issues, Moldova is placed on 23rd position out of 130. Thus, there is the necessity to continue improvement of legal framework in field of gender equality.

This priority is linked also with implementation of the *EU-RM Association Agreement (2014)*, which by article 31 clearly state that both countries shall intensify their collaboration to improve the social dialogue, social protection, equality of rights for men and women, liquidation of discrimination practices and other related issues. In order to change this situation, Moldova has developed the *The Strategy for ensuring equality between women and men in the Republic of Moldova for the years 2017-2021* and of the *Action Plan (GD Nr 259/2017)*. . As the strategy stipulates, there are set up some specific objectives that are oriented to better the situation in this sector at the country level, including the following:

? Education sector: to introduce gender dimensions into the educational policies to improve gender climate in educational institutions, develop and implement educational programs and methodologies to form a responsible behaviour among children and youth;

? Participation in public and political decision-making process foreseen to eliminate structural barriers and to offer a balanced participation of women and men in public and political decision-making process to change the stereotypic roles of women and men in public and family life;

? Implement activities that will ensure an inofensive physical and social environment in order to reduce external causes of death among men and to improve women health especially in rural area.

Gender equality is an important subject in Moldova as economic opportunities are generally gender sensitive. The project monitoring will be disaggregated by gender groups to assess the effectiveness in which the project reaches women and youth. Both genders are expected to benefit from acquiring new skills that are essential for maintaining the sustainability of agro-ecosystems, while capitalizing on existing skills in agricultural production. The project in partnership with the Moldovan Women Association, Women Association for Environmental Protection and Sustainable Development , the Women Organisation of the Truth and Solidarity Party etc., will involve in equal part women and men for project implementation at all stages. The priority in the selection of local and international experts will be given to women.

Achieving gender equity requires an integrated approach geared towards behavioral and procedural changes at several levels in the biosafety regulatory process namely at the regulatory, administrative, technical and the outreach levels. In response to this, the project will incorporate the following elements:

? Analysis of livelihoods, gender and vulnerable groups including indigenous peoples will continue to inform the project design and implementation, through assessments of women engagements in handling biotechnology related activities, needs and aspirations,

collection of gender specific data and ensuring participation in project activities by the relevant stakeholders by gender. Because gender relations, aspirations, and opportunities can vary greatly, the analysis will begin with a closer look at the social set up that define the roles, burdens, access to and control of resources for men, women, youth and local communities. This will ensure gender sensitivity throughout the project design and implementation process that considers the needs and priorities of both women and men. The analysis itself will be organized in a way that allows varying approaches and availability to meet the needs and participation of women and men.

? Gender-balanced management: Behavior change and gender-balanced management within various implementing entities and beneficiaries is key to opening spaces that empower women. In the case of regulatory officials and end users of technology, women and men will be trained and tools provided on the national biosecurity systems guided by needs captured during the gender analysis.

? Women will be adequately represented in regulatory mandates as per the law and the guidelines developed not only at the policy level but also at the technical and training levels. Trainers will be taught how to be aware of, responsive to and advocate for gender issues in their training context and community and equipped to counter negative behavior.

? Technical and financial capacity building: Targeted, gender-balanced capacity building, budgeting and technical assistance packages will be refined based on the results of the stocktaking analysis. The timing and structure of workshops will take care not to overburden participants, particularly women, who tend to shoulder more of the household and caregiving responsibilities. In addition to the core training activities, specialized technical assistance may be provided in support of handling of modern biotechnology products and the required obligation of biosafety measures in the country especially where in relation to in country use, transit and transboundary movement of LMOs/IAS and its impact on biodiversity as the safe use of genetic material is of supreme value to the livelihoods of women and their families. This can include direct support to women's organizations. Women have shown significant interest in tools that help build consumer confidence and acceptability of their products.

? Gender-balance will guide the setting up, selection and participation in meetings and training workshops and may lead to organizing separate sector/thematic based meetings for different end users to ensure that that women, youth and local communities are fully informed of the activities to date, to obtain their input, and to collaboratively work together to develop a strategy for their long-term inclusion and participation of the biosecurity regulatory processes in all the participating countries.

The sex-disaggregated targets will be applying for project activities and corresponding expected results will provide important benefits to various categories of people, i.e. stakeholders, participants, officials, decision-makers, experts, etc. and insure at least 60% of them will be women. Collecting sex-disaggregated data will be an important component of monitoring and evaluation system that mainstream gender. A deeper gender analysis, dedicated gender-related activities and outputs will be developed which will have their own indicators and targets. The project will involve specific women's empowerment activities (accommodating/meeting the needs of women practically, including gender-transformative activities of patriarchal structures to address women's strategic needs (by challenging the nature of the gendered power relationship between women and men, especially in decision-making contexts). This includes advocacy for meaningful participation of women in decision-making by promoting their inclusion and supporting them through capacity building activities. To achieve an acceptably high number of women in participation (decision-making and implementation) it could be needed to apply affirmative action as it would help to compensate for past 'discrimination' and/or to address existing inequalities.

An in-depth gender analysis aiming to empower women as well as men and work towards achieving gender-equitable outcomes will capture and utilize the dimensions:

- ? Equal/appropriate participation or representation of women and men ? in decision-making as well as project implementation activities.
- ? Women's and men's different needs based on their concerns, experiences (including with regards to their roles and responsibilities), and constraints.
- ? Whether proposed activities/approaches will lead to gender-responsive results (and not unintendedly reinforce gender inequity).
- ? Collection of gender-disaggregated data.

The gender-mainstreamed project will be developed based on in-depth analysis of gender context from the concept phase that will include gender indicators/targets/outputs in the log frame, so they'll be part of ongoing monitoring and with the clearly sufficient financial and human resources dedicated to the corresponding activities.

Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment? Yes

closing gender gaps in access to and control over natural resources; No

improving women's participation and decision-making; and/or Yes

generating socio-economic benefits or services for women. No

Will the project's results framework or logical framework include gender-sensitive indicators?

Yes

4. Private sector engagement

Will there be private sector engagement in the project?

Yes

Please briefly explain the rationale behind your answer.

Business sector representing agricultural cultivators of corn and soybean in Moldova, importers/exporters of agricultural crops and feed for animals will be involved in the policy and legal consultation and training activities to improve their knowledge and understanding of international and national rules and approaches in biosafety.

The SGS Moldova private consultancy services organization will be involved in offering consultancy and detection of LMOs services to farmers and other stakeholders. The National Farmers Federation, National Agency for Rural Development (ACSA), IFAD will contribute for public information and awareness in the field of LMOs management and risk prevention.

The private food processing sector and local marked control services will be involved in the handling of goods, food and seed and biomaterial control.

5. Risks to Achieving Project Objectives

Indicate risks, including climate change, potential social and environmental risks that might prevent the Project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the Project design (table format acceptable)

Moldova is affected by climate-related natural hazards, such as droughts, floods, hail, soil erosion and landslides which have important negative impacts on agricultural production, crop quality, water supply, and population health. Climate change models forecast shows that the frequency and severity of climate disasters will increase. In turn, the high degree of land degradation exacerbated the vulnerability of agro-ecosystems to climate fluctuations. Thus, the project interventions for promoting ecosystem conservation practices will contribute to mitigation of climate change impact to natural landscapes and adjacent rural communities.

Key risks affecting the project objectives and proposed mitigation measures are listed below.

KEY RISKS	Rating	MITIGATION MEASURES
<p>Governance</p> <p>As a result of political instability there is a risk to divert the attention from important institutional development that can negatively impact the project implementation.</p>	<p>Medium</p>	<p>The UNEP-GEF project will help mitigate this risk to a limited extent by engaging stakeholders from across the political groups and by offering a platform for inter-ministerial discussions on important and major areas of reform that need to be pursued.</p> <p>Continuous communication and involvement of all relevant stakeholders, to ensure that proposed activities are not politically divergent. Consultations and communication will be an important part of the proposed activities.</p>
<p>Regulatory barriers</p> <p>There are significant governance challenges including insufficient linkages between legislature and executive power, and a low level of regulatory enforcement.</p>	<p>Medium</p>	<p>A number of regulatory and enforcement documents to implement laws will be developed and consulted with the sectoral actors. In addition, an Inter-Ministerial Steering Committee will help with both project implementation and coordination among agencies. A strong cooperation with the National Biosafety Commission, Scientific Council on Protected areas, National Commission on Red Book will be established during the project execution.</p>

<p>Coordination between stakeholders</p> <p>The project needs to engage numerous sectorial governmental agencies, academia, private business, farmers, local authorities NGOs etc. Lack of coordination among multiple groups may slow down the project. A possible risk is low interest of farmers and communities to be involved in the demonstrational good farming practices to replicate it for other stakeholders.</p>	<p>Low</p>	<p>A number of coordination meetings, thematic workshop and trainings addressed to all key actors and stakeholders will be supported by the project. Local and international experts will be invited to facilitate trainings on specific topics related to IAS and LMOs management and to ensure biosecurity measures are incorporated in developed technical and regulatory guidelines. . Public awareness and participation will be promoted using the BCH system, the proposed Unified Portal and through large campaign on information and awareness of the project.</p>
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Due to climate change impacts, public perception towards LMOs change, especially if LMOs perform better under climate change conditions

Low

Potential use and import of LMOs may increase under increased temperature, heavy droughts and other climate change related results due to tolerance to abiotic stresses. Climate hazards, such as extreme temperatures, lasting droughts, late spring and early fall frosts, hail and heavy rain, have had significant impacts on productivity, incomes, and natural resources of Moldova and are expected to increase in intensity and frequency in a changing climate.

According to the [Third National Communication of the Republic of Moldova under the UNFCCC](#) (2013), drought is one of the most common and devastating extreme climate events in Moldova. A major part of Moldova (74.5%) relates to dry sub-humid (UNCCDAI = 0.50-0.65) and semi-arid (UNCCDAI < 0.50) lands. It is in dry lands the agricultural ecosystems are more vulnerable to climate and the balance of production and consumption often depends on water resources. Accounting for 13% of the total number of hazards, droughts in Moldova make up 67% of the economic losses from weather and climate related risks. Insufficiency and high variability of precipitation are the main drivers of drought and significant failure of water resources and agriculture production, creating a challenging environment for all sectors of human activity.

Floods also affect the Republic of Moldova on a recurring basis. In the past 70 years, 10 major floods on the great rivers of the Republic of Moldova (Nistru and Prut rivers) were reported, and three of those occurred in this decade (2006, 2008 and 2010).

More recent events have had a significant impact: the 2007 and 2012 droughts caused estimated losses of about US\$1.0 billion, respectively US\$1.25 billion; the 2008 floods cost the country about US\$120 million. ([Second National Communication of the Republic of Moldova under the United Nations Framework Convention on Climate Change](#). Chisinau, 2009).

The three SRES emissions scenarios project similar temperatures in the near-term decades +1.2 -1.40C throughout the Republic of Moldova. Only starting with the 2050s the three emissions scenarios produce temperature patterns that are distinguishable from each other. The rate of warming is higher under A2 ensemble and it reaches +4.3 0C; medium - under A1B, +3.8 0C, and smaller +2.7 0C - under the B2 emission scenarios by the 2080s.

By the 2081-2100 period the climate aridization will be felt during the whole vegetation period (April to September); it will be much more pronounced and may result in values characteristic to the semi-arid climate (AI = 0.21-0.50). Analysis of data shows that by the 2081-2100 time the drought conditions of HTC ? 0.7 will be observed on the whole territory of Moldova, those levels can achieve even the values characteristic of the medium drought (HTC = 0.6) and strong drought (HTC ? 0.5). ([Fourth National Communication of the Republic of Moldova to the UNFCC](#), 2018).

Because of climate change on food security and food production in the country, potential use and import of LMOs that are supposed to be more resilient and tolerant may increase. The population of invasive alien species may also be spreading due to their resistance and better adaptation to climate change effects. The local genetic diversity of spontaneous flora and fauna may suffer under the severe droughts and high temperatures because of climate change, affecting their natural habitats and ecosystems.

During the PPG phase, the potential of climate change scenarios on the country's response will be integrated into capacity building interventions and into the design of policies to ensure that such changes to public

<p>An outbreak of diseases (Covid-19)</p>	<p>Medium</p>	<p>Moldova has had as of 31st March 2022 a total of 513,146 cases of COVID-19 since the start of the epidemic. A number of 11,4321 COVID-19 related deaths occurred (Ministry of Health). The country declared a pandemic emergency regime on full lockdown for the period of 16 March ? 16 May 2020, and the sanitary emergency regime has been prolonged until today.</p> <p>Moldova is the first in a series of 39 countries for which this first round of data since the outbreak of COVID-19 are available. The data provide a snapshot of business performance at the height of the crisis in April 2020 relative to the pre-COVID-19 baseline. (World Bank: The growing impact of COVID-19 on Moldova?s private sector).</p> <p>The impact of the pandemic on SMEs has been significant, with most companies reporting sales declines of up to 75-100%. The main factors affecting the work of companies have been the decrease in demand for products and services, work restrictions, limited access to raw materials or supply disruptions (especially for imported materials) and distribution chains, decreased labor productivity. Eighty-eight per cent of the entrepreneurs reported a negative effect of the pandemic, especially those in HoReCa, domestic non-food trade and services. (UNDP Moldova. Policy dialog: The socio-economic impact of the COVID-19 pandemic on Small and Medium Enterprises in the Republic of Moldova).</p> <p>The infection rate has increased dramatically post-lockdown. After initial containment progress, Moldova is currently seeing higher infection rates than peer countries (MD: 8,527cases per million population; RO: 2,089; UA: 1,395), while testing lags behind some neighboring countries in the region. The COVID-19 pandemic has found the Moldovan economy in a vulnerable position. An economic recession in 2020 seems imminent. The impact comes from two factors: External (decline in exports, remittances and FDI), and Internal (strict containment measures). (Social and Economic Impact Assessment of COVID-19 in Republic of Moldova. Deliverable 1 ?Initial impact assessment report, 2020)</p> <p>The outbreak of COVID-19 has already affected work nationally and will have a major impact on the economy of the country. Under such conditions, the government is expected to focus public resources on rebuilding the economies of the country. This might affect the co-financing of the project and the ability of the project to deliver on the GEBs. . Potential impacts on the commitment of co-financiers and partners will be assessed in detail during the PPG phase to develop adequate risk mitigation actions.</p> <p>The current COVID-19 situation will be taken on board during the project and the risks will be mitigated by trying to carry out relevant activities via alternative working methods (e.g. videoconferences, telecommuting, recourse to national human resources in the countries, etc.). Any mitigation measure will have to be discussed between the implementing and the executing partners/agencies.</p> <p>The risk is only partly under project control. Biosecurity considerations which are at the base of Biosafety capacity building and implementation will be fully triggered both to ensure human and environmental safety to project implementation measures and execution of activities, including project deliverables.</p>
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<p>Gender-inequitable context in country that could be a challenging environment</p>	<p>Medium</p>	<p>There is gender-inequitable context in country that could be a challenging environment to work in and achieve gender-related results.</p> <p>According to the UNDP Human Development Report, the Human Development Index for the Republic of Moldova is 0.750 and the ranking is 90.</p> <p>Inequality Inequality-adjusted HDI (IHDI) - 0.672;</p> <p>Gender. Gender Development Index (GDI) -1.014;</p> <p>Poverty. Population in multidimensional poverty, headcount (%) - 0.9.</p> <p>Global Gender Gap Index for Moldova is ranking 28 out of 156 countries, and the Score is 0.768 in 2021 according to the World Economic Forum report.</p> <p>During the PPG phase a special attention will be paid to involve women in all implemented activities including stocktaking phase, theory of change, project design, inter departmental communication, relations and awareness with main stakeholders, assessments and review and project activities designing. Regular meetings with women will help to ensure their large participation and incorporating their suggestions and interests.</p>
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Ukraine crisis in Moldova	High	<p>As of today, over 250,000 people from Ukraine have crossed the country's border, out of which over 100,000 remained in Moldova, these numbers being in continuous rise as the military actions intensify. Almost 90% of the total number of refugees are women with children ? one of the most vulnerable group of persons being highly exposed to different risks and challenges.</p> <p>Military provocations in Transnistria region of Moldova that happened during the first week of May 2022 provide social tension and instability over all country. The Security Council of Moldova decided to extend the Security restriction period for the next 60 days.</p> <p>Moldova is facing massive challenges after hundreds of thousands of Ukrainian refugees entered the country seeking shelter from Russia's invasion in 2022. Moldova is already struggling with its own economic difficulties. According to the latest UN report, the Republic of Moldova is the first in the top five countries to receive refugees from Ukraine - with almost 1,400 people per 10,000 inhabitants. The United Nations Development Program states that over 30% of Moldova's population could fall below the poverty line due to the conflict in Ukraine, and every second Moldovan is at risk of becoming poor next year. The Government is currently working on a resilience plan, which will include quick solutions to ensure socio-economic resilience. This plan has several dimensions. The first is to maintain the purchasing ability of the population. The increased pension fund and increased pensions above inflation would be one of actions. This fund has been increased by 30% compared to last year through various mechanisms. A reform the welfare system to help families with children. A financial support for economically active families, who need the care of young children, who do not have access to the nursery, so that parents remain economically active. The second dimension is energy security, it is planned to create natural gas reserves. To have electrical infrastructure and interconnection projects with Romania, so that it is expected to diversify the supply. A third dimension is economic competitiveness seeking to develop small and medium enterprises. The fourth dimension is food security. There is to have to make sure that the necessary food is produced internally and that reserves are sufficient. The fifth dimension is public safety. For this, a macro-economic support is need, which should be directed towards increasing the country's resilience.</p> <p>Authorities struggle to deal with the ongoing flood of refugees; however, the project may be a possibility for people to recover some of their economic capacities after the Ukraine crisis is over.</p> <p>Local authorities (which are important stakeholders in the project) are currently overwhelmed by the number of refugees from Ukraine and will probably be less inclined to participate in workshops or other project-activities.</p> <p>The Moldovan project team will observe the situation in relation of effects from the Ukraine crisis.</p> <p>If any problems occur and actions are needed (e.g. problem in the stakeholder participation ? conducting meetings) the project team will immediately clarify the next steps.</p> <p>Considering this situation and in order to get information on the status of the project will be established on a regular basis (monthly) via meetings.</p>
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6. Coordination

Outline the institutional structure of the project including monitoring and evaluation coordination at the project level. Describe possible coordination with other relevant GEF-financed projects and other initiatives.

The project will be focused to ensure management of IAS and LMOs in a multi-disciplinary and cross-sectoral participation. The Project Steering Committee will ensure good coordination between governmental bodies and stakeholders and will also provide policy guidance and supervisory oversight to the project execution. The project is in line with a series of ongoing capacity building initiatives implemented by a number of stakeholder Ministries and departments in Moldova. The project implementation will be strategically guided by a Project Steering Committee (PSC). An existing management entity will serve as a fiduciary agency and provide support for general coordination of implementation, procurement, financial management and monitoring and evaluation. Other governmental stakeholders are: the Ministry of Environment (MoE), Ministry of Health (MoH), Ministry of Education and Research (MoER), ?Moldsilva? Forest Agency (SFA), Academy of Sciences of Moldova (ASM) and research institutions, the Inspection for Environmental Protection (IEP), National Agency for Food Security (NAFS), Customs Control Services (CCS), National Biosafety Commission (NBC), as well as universities with biological and agricultural profile (Moldova State University, Agrarian State University). A leading role will be provided by the Ministry of Environment as the national authority for biodiversity conservation and acting as the national executing agency through a national inter-agency task force to facilitate in-country coordination and multistakeholder representation across sectors to ensure their input to the integrated management system for biological resources. The gender parity among members of stakeholder entities will be ensured by encouraging women to take on leadership roles in an effort to have women in decision-making bodies/positions. A gender-related government entity will be fully engaged and assigned as a member of the Project Steering Committee (PSC) for oversight of gender mainstreaming and/or a civil society organization i.e. the Moldovan Women Association and ensure there is gender expertise present in the Project Management Unit (PMU) to support the implementation of gender-related interventions. The gender mandated institution, will be designated with a monitoring and technical oversight role to ensure gender mainstreaming, gender equality and women empowerment activities which will be executed by the project. The Public Institution Environmental Projects Implementation Unit (EPIU) of the Ministry of Environment of Moldova will serve as the PMU. The Government of Moldova intends to leverage GEF resources to complement their ongoing activities and facilitate effective and integrated implementation of the CBD, NP, CPB and NKLSP. All efforts will be made to ensure synergy between the ongoing projects/programs, avoiding overlaps and optimize the available resources.

Effective project implementation will be provided through establishment of a Project Steering Committee (PSC), chaired by the MoE, with members from relevant agencies. This PSC will review the project twice a year, and will work closely with various ongoing initiatives carried out by other Ministries and stakeholders.

Gender-disaggregated performance indicators will be assessed. Monitoring and evaluation will include gender-specific indicators in management/regulatory agency positions and of the presumed result of

greater gender equity including the impact of biosafety at household community and household levels (increased family income, improved household wellbeing, more efficient businesses, and improved Biosafety measures). Results will be disaggregated to demonstrate distribution of results across the different genders, biosafety expertise, opportunities in decision making (through the Project Steering Committee), socio-economic and local communities.

Soft skills required for effective project delivery and efficient functioning of NBF institutions, including provision of platforms for information and experience sharing on biosafety, will be enhanced at the intercountry level. Throughout the implementation of the project, gender disintegrated data will be compiled on the project personnel and on project participants/ beneficiaries. The project will endeavour to balance gender representation and participation across all levels of project implementation. Similarly, these considerations will apply as the project reviews and adopts existing manuals and guidelines for local and regional needs. Specific technical tools that are internationally developed (by UNEP or SBCD, etc.) will be reviewed by assigned to the Gender mandated entity to ensure issues of gender are addressed.

The project will collaborate with other relevant programmes and initiatives in the field of biodiversity and nature conservation as listed below:

? Austrian Development Agency (ADA) project ?Support the creation of the Lower Dniester National Park? is aimed to improve the biodiversity conservation measures and increase the local population's interest in specific development opportunities in the area.(2018-2021).

? EU project ?EU4Environment? is focusing to aims to preserve and better use the natural capital, increase people?s environmental well-being, and stimulate economic growth in six Eastern Partnership countries: Armenia, Azerbaijan, Belarus, Georgia, the Republic of Moldova, and Ukraine. By bringing together environmental and economic actors, the EU4Environment Programme helps to deliver policy and legislative changes, making planning and investment greener, stimulating thus the uptake of innovative technologies, adopting new business models, and creating green jobs. It also promotes better environmental governance, improved management of protected areas and forests, and sustainable trade.The Action will span from 2019-2022, involving five implementing organisations - OECD, UNECE, UNEP, UNIDO, and the World Bank ? that will focus on producing tangible and achievable results in line with the goals, priorities and overall cooperation targets defined by the Partner countries. The Ecosystem services and further implementation of the Emerald Network is aimed by the project.

Synergistic and joint activities will be promoted to ensure exchange of basic information and database, GIS mapping, selection of demonstrational areas and pilot activities, involvement/use in/of educational and training activities and materials, good practices of ecosystem management and farming, local community participation to support the delivery of the expected project results.

7. Consistency with National Priorities

Is the Project consistent with the National Strategies and plans or reports and assesments under relevant conventions?

Yes

If yes, which ones and how: NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc

- National Bio Strategy Action Plan (NBSAP)
- CBD National Report
- Cartagena Protocol National Report

Being a Party to the CBD and the Cartagena Protocol on Biosafety, including the Nagoya-Kuala Lumpur Supplementary Protocol, the Government of Moldova is committed to fulfill its obligations concerning biodiversity management and ecosystem conservation. This coverage corresponds with the 2020 targets established by the National Biodiversity Strategy and Action Plan for 2015-2020 (NBSAP) (approved in May 2015), the Sixth National Report on Biological Diversity (2018), the Fourth National Report to the Cartagena Protocol (2019), the National Environmental Protection Strategy 2014-2023 (2014), the National Ecological Network Program (2001), the National Strategy for Sustainable Development of Forestry Fund (2001), and the State Program on Forest Fund Areas Regeneration and Forestation, 2003-2020, (2003).

Strategy on Biological Diversity of the Republic of Moldova for 2015-2020 and the Action Plan. The 5 strategic goals for the realization of the Aichi biodiversity targets at the global level that shall be transposed into the national strategies are as follows:

- ? Strategic Goal A. Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society
- ? Strategic Goal B. Reduce the direct pressures on biodiversity and promote sustainable use
- ? Strategic Goal C. Improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity
- ? Strategic Goal D. Enhance the benefits to all from biodiversity and ecosystem services
- ? Strategic Goal E. Enhance implementation through participatory planning, knowledge management and capacity-building

The mentioned policy and regulatory documents are consistent with the planned activities under the project. As an example, the provisions in the NBSAP on risk assessment, laboratory detection and identification of IAS and LMOs, public information and participation, liability and redress are in line with activities planned in the component 1, 2 and 3 of the project.

The Strategic Goal A, foresees the establishment of a sustainable management and efficient institutional framework for biodiversity conservation through ensuring the integration of international treaties requirements into national policies on biodiversity, specifying the activity on ratification of the Nagoya-Kuala Supplementary Protocol on Liability and Redress to the Cartagena Protocol on Biosafety.

Under the Strategic Goal B, it is expected to reduce by 2020 the pressure on biodiversity to ensure sustainable development through developing procedures and strengthen capacities to assess risk/risk management as part of the living modified organisms authorization process, develop the liability and redress mechanism for biosafety. As a result there is expected to ensure the biological security measures by developing 2 risk assessment procedures for the introduction of living modified organisms in the environment and the establishment of an advisory center. The Specific objective C of the NSBAP,

foreseen to be implemented beyond 2020 proposes measures to stop the threats to biodiversity through interventions that stop soil degradation and mitigate the climate change effects, measures that decrease the negative impact of IAS on biodiversity by developing a study/program or practical guide on how to manage the IAS.

The Strategic Goal E, foresees to ensure by 2020 the scientific support for biodiversity conservation, access to information and promotion of education in context of sustainable development by ensuring the educational framework and training of personnel in the field of biodiversity and biosecurity through organizing of special training courses, publication of 3 guides on best practices. Also, here is planned to raise public awareness and information level on biodiversity conservation.

The national policies in the fields of forestry management foresee a number of measures and actions for afforestation and extension of the total forest area till 15% of the territory, development of the national protected areas conservation and management plan, decrease of anthropic effects and pressure, conservation of biodiversity and ecosystem services. Ensuring biosecurity in the mentioned areas and sites become an actual need to preserve biodiversity and contribute to social and economic development in the country.

The project is thematically consistent with the GEF-7 Biodiversity Strategy in the context of Mainstreaming biodiversity across sectors as well as landscapes and seascapes, focusing to sustainably managing biodiversity in productive landscapes and seascapes and ensuring that any impact caused by productive sectors on biodiversity is avoided, or substantially reduced or minimized; supporting the complete and effective implementation of the Nagoya Protocol, the Cartagena Protocols and its Nagoya Kuala-Lumpur Supplementary Protocol.

The project will support regulatory and institutional capacities aimed at building an integrated risk-based management system for conservation of genetic resources, prevention from invasive alien species and management of potential adverse impacts of novel organisms to the natural ecosystems and implementation of best practices in ecosystem conservation. The project will also promote ecosystem adaptive conservation assisting in managing and monitoring of risks associated with IAS/LMOs unintentional transboundary movement and intervention.

The project will ensure the gender equality in line with the existent policy framework identified by the Strategy for ensuring equality between women and men in the Republic of Moldova for the years 2017-2021 and of the Action Plan (GD Nr 259/2017). Gender equality, poverty reduction, women leadership and participation in decision making, will be encouraged at all stages of the project implementation.

The project will contribute towards strengthening community and farm-level capacity and decision support systems for biodiversity, biosecurity and ecosystem sustainability. It will reinforce these outcomes by supporting land users and local communities in a wider landscape and ecological networks and emphasizing cross-sector integration of sustainable requirements into broader approaches towards biodiversity, biosecurity and landscape conservation, and ensuing harmonization of activities within different governmental institutions, local authorities and public sector.

8. Knowledge Management

Outline the knowledge management approach for the Project, including, if any, plans for the Project to learn from other relevant Projects and initiatives, to assess and document in a user-friendly form, and share these experiences and expertise with relevant stakeholders.

UNEP is actively coordinating with the *Convention on Biodiversity, Cartagena Protocol on Biosafety* and the *Nagoya - Kuala-Lumpur Supplementary Protocol* on technical consultation aspects of project implementation and will learn from their gained experiences. Furthermore, a gender-sensitive approach will be incorporate, which can comprise of, but is not limited to, the following:

? Use of male and female knowledge product, communication, and public education material developers for the diversity of perspectives and approaches, as well as male and female reviewers of these products.

? Use of gender-sensitive language and gender-balanced images (women not presented as victims but as agents of change).

? Examining context and content (use gender analysis; use convincing gender arguments based on reliable sources and qualitative and quantitative data including sex-disaggregated data).

? Referring to (inter-)national policy framework, policies, strategies, and plans, as applicable and appropriate.

UNEP has an existing platform through the library of its project management database ANUBIS (A New UNEP Information System) for the Biodiversity/Biosafety projects and related initiatives to learn from each other, share experience and expertise and tools and methodologies to support decision making. ANUBIS also allows the projects to assess project outputs and reports in a user-friendly form. In addition, UNEP has created an annual forum for the projects to physically meet at regional/sub-regional level to learn and share experiences on project management including best practices and challenges, in addition to training on emerging issues. The project will also have access to UNEP Biosafety's YouTube channel to access media files and also share materials for the benefit of the projects in the portfolio. Existing mechanisms and training will be offered for the project to assess and share information on the *Clearing House Mechanism of the CBD, Biosafety Clearing House* platform and the integrated national platform on CHM, BCH.

9. Environmental and Social Safeguard (ESS) Risks

Provide information on the identified environmental and social risks and potential impacts associated with the project/program based on your organization's ESS systems and procedures

Overall Project/Program Risk Classification *

PIF	CEO Endorsement/Approval	MTR	TE
Low			

Measures to address identified risks and impacts

Provide preliminary information on the types and levels of risk classifications/ratings of any identified environmental and social risks and potential impacts associated with the project (considering the GEF ESS Minimum Standards) and describe measures to address these risks during the project design.

As per the guidance provided by the Safeguards Advisors review, the following actions have been identified

1. The project was identified as a low-risk project. However, the project shall undertake meaningful stakeholder engagement with the vulnerable groups - farmers and local communities. Strategic Environment Assessment should be carried out during the project's implementation.
2. The project proponents will consult the Safeguards Advisor during the PPG phase and
3. Consult Safeguards Advisor early during the full project development phase for guidance and review prior to submission

Supporting Documents

Upload available ESS supporting documents.

Title	Submitted
SRIF-Moldova Biosecurity PIF_am	

Part III: Approval/Endorsement By GEF Operational Focal Point(S) And GEF Agency(ies)

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S): (Please attach the Operational Focal Point endorsement letter with this template).

Name	Position	Ministry	Date
Mr. Petru TATARU	GEF Operational Focal Point	Ministry of Environment of the Republic of Moldova	4/29/2022

ANNEX A: Project Map and Geographic Coordinates

Please provide geo-referenced information and map where the project intervention takes place



GEOGRAPHIC COORDINATES: 45°27' - 45°27' Nord (350 km), 26°39' - 30°05' Est.