United Nations Development Programme Country: Republic of Moldova Project Document

Project Title

Supporting Moldova's National Climate Change Adaptation Planning Process

UNDAF/CP Outcome(s)

Outcome 3.2 - Low Emission and Resilient Development: Strengthened national policies and capacities, enable climate and disaster resilient, low emission economic development and sustainable consumption.

Expected Output(s):

(Those that will result from the project)

UNPF Action Plan Output 3.2.2 - Policies, mechanisms and capacities strengthened at all levels for disaster risk management and climate change adaptation

Implementing Partner:

Ministry of Environment of the Republic of Moldova

Brief Description

The overall goal of the project is to ensure that Moldova has a system and capacities in place for medium- to long term adaptation planning and budgeting with the overall aim to reduce vulnerability of the population and key sectors to the impacts of climate change. The main project objective is to support Moldova to put in place its National Adaptation Plan (NAP) process contributing to and building upon existing development planning strategies and processes and to implement priority adaptation actions. The following outputs are expected:

Output 1. Institutional and policy frameworks for medium- to long-term gender-sensitive adaptation planning and budgeting in place

Output 2. Institutional and technical capacities for iterative development of comprehensive NAP strengthened

Output 3. Adaptation interventions in priority sectors implemented including demonstration projects at a local level to catalyze replication and upscaling

Programme Period: 2013-2017

Key Result Area (Strategic Plan) Environment and

Sustainable Development

Atlas Award ID:

Start date: 1 June 2013
End Date 31 May 2016
PAC Meeting Date 31 May 2013
Management Arrangements NIM

Total resources required EUR 744,000

Total allocated resources:

Gov. of Austria: EUR 744,000

Unfunded budget:

n/a

In-kind Contributions

EUR 64,025

Agreed by (Government)

Agreed by (Responsible Party):

Agreed by (UNDP):

Pro	ject Details
Country: Republic of Moldova	
Implementation Timeframe: 36 month	s (1 June 2013 – 31 May 2016)
Applicant	National Responsible Party
United Nations Development Programme (UNDP) Moldova	Climate Change Office under the Ministry of Environment of the Republic of Moldova
Legal Status, Year of Founding: International Development Organization, Country Office established in Moldova in 1992	Legal Status, Year of Founding:
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Project Goal and Objective

The overall goal of the project is to ensure that Moldova has a system and capacities in place for medium- to long term adaptation planning and budgeting with the overall aim to reduce vulnerability of the population and key sectors to the impacts of climate change. The main project objective is to support Moldova to put in place its National Adaptation Plan (NAP) process contributing to and building upon existing development planning strategies and processes and to implement priority adaptation actions.

Expected Project Outputs

Output 1. Institutional and policy frameworks for medium- to long-term gender-sensitive adaptation planning and budgeting are in place

Output 2. Institutional and technical capacities for iterative development of comprehensive NAP strengthened

Output 3. Adaptation interventions in priority sectors implemented including demonstration projects at a local level to catalyze replication and upscaling

I. SITUATION ANALYSIS

The Republic of Moldova's economy, population, and environment are highly vulnerable to climate variability and change. According to a range of studies, including the Republic of Moldova's Second National Communication (2nd NC) and Third National Communication (3th NC)¹ under the United Nations Framework Convention on Climate Change (UNFCCC) and the National Human Development Report (2009/2010 NHDR), the impacts of climate change are expected to intensify as changes in temperature and precipitation affect economic activity.

The socio-economic costs of climate related natural disasters such as droughts, floods and hail are significant and both their intensity and frequency are expected to further increase as a result of climate change. During the period 1984-2006, the Republic of Moldova's average annual economic losses due to natural disasters were about US\$61 million, or 2.13 percent of national GDP. More recent events have had a significant impact: the 2007 and 2012 droughts caused estimated losses of about US\$1.0 billion and US\$1.25 billion respectively; the 2008 floods cost the country about US\$120 million². The floods in 2010 are estimated to have had an adverse economic impact on GDP of about 0.15 percent, with total damage and losses estimated at approximately US\$42 million. A significant component of vulnerability is the high incidence of poverty, particularly in rural areas. Despite economic growth observed in recent years, poverty is geographically widespread and persistent in the country.

Expected Climate Change

The climate projections – for Moldova, based on an ensemble of most recent coupled atmosphereocean General Circulation Models (GCMs), suggest that annual average air temperature will increase. By the 2080s the increase may amount to 2.6 - 5.2 °C, depending on the season, agroclimatic zone (ACZ) and underlying emission scenario. The highest warming is expected during the summer season in the Central and Southern ACZs. Along with warming, starting with the 2050s a continuous annual decrease of precipitation sums is expected, again with most significant declines expected in the South of the country³.

The greatest climate change impacts are currently coming from climate variability and droughts, heavy rains and floods. These extreme weather events are likely to become more frequent in the future. Analysis of past data (1890-2007) reveals that droughts affect the Republic of Moldova on a recurring basis — over this 117 year period, 22 years were marked by serious drought during the vegetation period (April-September), and 18 years by mild droughts. Furthermore, the frequency of droughts is increasing, with significant impacts on lives and livelihoods. The annual decrease of precipitation, against a temperature increase, stimulates a strong humidity deficit, particularly critical for the agricultural sector.

Also heavy rains and floods affect the country on a recurring basis. In the past 70 years, 10 major floods were reported on Dniester and Prut rivers, with three of those occurring in the last decade (2006, 2008 and 2010). Floods primarily affected rural and agricultural regions of the country⁴ and large floods on the smaller rivers in the country are also common⁵. Due to climate change and increasing regional climate variability, Moldova is expected to experience increasing frequency of short-term water oversupply, particularly in the form of flash floods, landslides and sub-inundations. At the same time Moldova's surface water supplies will potentially significantly decrease, with impacts expected already within the next 15 years.

Particularly critical for human health are frequent temperature anomalies and especially prolonged heat waves. Projections suggest that what were considered as extreme rare events for absolute

¹ Forthcoming.

² World Bank, "Project Appraisal Document on a Proposed Credit to the Republic of Moldova for a Disaster and Climate Risk Management Project", July 6, 2010.

³ 2nd National Communication; Draft National Adaptation Strategy (2013)

⁴ Government of the Republic of Moldova. "Post Disaster Needs Assessment, Floods 2010." Supported by the European Union, the United Nations, and the World Bank, with the support of the Global Facility for Disaster Reduction and Recovery (GFDRR), 2010.

⁵ National Hydro-Meteorological Data, http://www.meteo.md/pavodok2010/pavodok2010.htm

maximum temperatures under the baseline climate (34-35 °C) will possibly become mean maximum summer temperatures.

Biophysical and socio-economic vulnerability

In the framework of developing the Third National Communication to the UNFCCC (3rd NC) a Vulnerability-Resilience Indicators Model was applied to diagnose Moldova's current vulnerability. A large set of indicators determines exposure, sensitivity and adaptive capacity in areas such as human settlements and infrastructure, food security, ecosystem sensitivity, water security, human health, economic capacity, human and civic resources, environmental security and environmental protection capacity. The analysis confirms Moldova's high water resources sensitivity, human health sensitivity and limited economic adaptive capacities. At the same time adaptive capacity components of the index show that country has potential for environmental adaptation, and human and civic resources capacities. The results obtained from the application of the Livelihood Vulnerability Index at district level, assessing exposure to climate variability, social and economic characteristics of households that affect their adaptive capacity, and current health, food, and water resource characteristics that determine their sensitivity to climate change impacts, show high degree of overall vulnerability.

While already current climate variability is challenging Moldova's development, future climate change is expected to have a wide range of impacts across all sectors, with particularly profound effects on agriculture and water, both of which are essential to human and economic development. If no decisive and forward looking action is taken, the implication can be that the country may not be able to achieve its socio-economic development goals and reach its MDGs targets. For example, depletion of natural resources, decreased availability of potable water, reduced agricultural productivity and increased climate-related hazards could result in destruction of infrastructure for health and education, undermine the livelihood assets of poor people, place additional burdens on women's health and workloads undermining their ability to achieve equality, and increase child mortality and maternal health issues. The cost of inaction could be devastating – natural disasters are already costing Moldova an average loss of \$61 million each year, while with climate change these losses are going to intensify.

Policy and institutional framework and capacities

Climate change is increasingly recognized as fact of national importance, but so far the national strategic framework lacks integrated climate change mitigation or adaptation measures and institutional capacities for planning and coordination are weak. Addressing the climate change challenge is particularly demanding as it affects all facets of development — it is not specific to any one sector, but rather all development activities need to take account of the risks that climate change may pose to their success. Climate change adaptation further requires coordination and a supportive institutional and legislative environment which is currently lacking.

The draft National Adaptation Strategy (NAS), developed under the leadership of the Ministry of Environment, addresses the need for a strategic framework at the national level to ensure that a qualitative, effective and coherent climate change adaptation process takes place. The official consultation of the NAS with the Government, which is the first step in the formal approval process, is foreseen by Ministerial Order to be initiated by the Ministry of Environment in April 2013. According to the Annual Activity Plan of the Ministry, the official adoption of the Strategy by the Government is foreseen for the 3rd Quarter of 2013. The NAS identifies the projected impacts of climate change by sector and is intended to create the enabling environment for specific sectors and ministries to develop their own concrete action plans for adaptation or mainstream climate risk into their sector policies. In addition to describing the physical and socio-economic implications by sector, risks and opportunities posed by climate change to specific regions of the country are analysed. This forms the basis helping to identify climate risk "hot spots", where more immediate action to adapt to these impacts is required.

A systematic review and analysis of relevant national policies, including the National Development Strategy, as well as relevant sectoral policies, undertaken in the framework of NAS development and 3rd NC found that climate change is rarely accounted for, suggesting further that activities undertaken as part of these policies may be at risk from climate change. While some of the impacts of climate change are mentioned sporadically and in differing contexts, the connection between them and climate change as well as the complex repercussions are mostly omitted. In

some sectors, most prominently agriculture and health, progress is made in mainstreaming climate adaptation into decision making.

The Ministry of Agriculture and Food Processing Industry for example has integrated climate change concerns into the "Strategic priorities for the activities of the Ministry of Agriculture and Food Industry of the Republic of Moldova" in the years 2011 - 2015. The "Programme of Strategic development for the period 2011-2015" of Ministry of Agriculture and Food Industry includes a number of important measures that increase sectorial climate change resilience. The "Programme for Soil Fertility Conservation and Enhancement 2011-2020" has as long-term objective the preservation of the quality and productive capacity of soils for food security, which boosts the country's adaptive capacity. The "National Health Policy of the Republic of Moldova (2007-2021)" sets a number of preventive measures to cope with unfavorable climate events. Specific measures the in public health sector are mentioned in the "Law on State Surveillance of Public Health (2009)". The objectives of the "Law with regard to the Service of Civil Protection and Emergency Situations (No.93 of 05.04.2007)" are to protect the population and provide help in emergency situations including those originating form climate hazards. Climate change related measures are further incorporated in the "Programme for Water Supply and Sewerage in Communities of the Republic of Moldova until 2015", the "Sustainable Development Strategy for the Forestry Sector". as well as the "Energy Strategy of the Republic of Moldova until 2030".

Other areas and sectors to date completely miss to identify and address climate impacts at local, regional, sectoral and national levels.

Knowledge and understanding of climate change issues is primarily concentrated in the Ministry of Environment, the Climate Change Office under the Ministry of Environment, the State Hydrometeorological Service, and Academia, while sectoral planners and decision makers have rather limited understanding and/or capacity for climate resilient planning. Institutional mechanisms for coherent cross-sectoral coordination are currently not in place.

Relevance/Justification

Against this background the overall objective of the NAS is to ensure that the Republic of Moldova's social and economic development is resilient to the impacts of climate change, by establishing a strong enabling environment and clear direction for an effective and coherent climate change adaptation process to take place across all relevant sectors. The more specific objectives are to improve the management and dissemination of natural hazards and climate risk information, to ensure that climate change adaptation is a national and local priority with a strong institutional basis, and to build climate resilience through reducing risk and facilitating adaptation in priority sectors. The proposed project strategy is directly responding to these objectives, the activities will support the operationalization and implementation of the NAS.

Responding to the risks posed by climate change requires a coordinated and concerted effort on the part of the Government of Moldova. The National Adaptation Planning (NAP) process facilitated by this project will respond to the following identified priority needs for intervention:

• Coordination mechanisms for climate change across a range of stakeholders and within government need to be strengthened.

Inter-ministerial/cross-sectoral coordination mechanisms are needed to drive an effective NAP process and to ensure that climate change adaptation is a national and local priority with a strong institutional basis and addressed in a coherent manner. A strong institutional basis will create the platform for capacity development and strengthened inter-sectoral coordination and facilitate adaptation to climate change across all sectors and levels of implementation.

 No institutional structure for addressing and embedding climate risk into policy targets is in place.

Climate change is an issue that needs to be incorporated into different policy areas. The objectives and activities that are put forward in the NAS are intended to build and strengthen the framework at a national level for initiating sectoral action plans and stimulating effective adaptation action in communities. Decision-makers have to be provided with the appropriate incentives and structures required to incorporate adaptation into sectoral policies and processes.

 Mechanisms for gathering and disseminating climate information are weak and mechanisms for using information to raise awareness and influence decision-making do not exist.

A strong policy, legislative and institutional framework for climate risk management, required to support capacity to implement specific sectoral measures, has to be based on a sound understanding of the risk. Each ministry and decision maker will need to go through a process of identifying the risk that climate change poses to their goals and actions, and the response required to integrate adaptation into existing and planned activities.

 Mechanisms are needed to identify and mobilize national and international financing for adaptation, and ensure that financing flows to the local level to facilitate action on adaptation.

A realistic assessment of adaptation costs and identification financing sources, as well as ensuring the linkages to national and local budget processes is required to ensure implementation of the national and sector adaptation plans.

The project will build on the assessments and analysis undertaken in the framework of the 2009/2010 NHDR, NAS, 2nd and 3rd NC and other analytical processes and planning exercises ongoing at the sector level in view of identifying adaptation priorities by categories, efficient prevention measures, steps to reduce sensitivity and increase adaptive capacities of specific regions and vulnerable groups.

The Austrian Development Cooperation Moldova Country Strategy 2011–2015⁶ provides the main strategic Framework for Austria's support to the Republic of Moldova. The proposed project will directly contribute to the achievement of "Promotion of sustainable development and environment protection measures" which is one of the five medium term objectives and is further of relevance for the objective of "Improving access to water supply and sanitation services". The project is further fully in line with the Strategy's aim to contribute to the integrity and resilience of ecosystems and ecosystem services, particularly in relation to water resources, soil and biodiversity, and promote environmental awareness by addressing environment as cross-cutting issue.

Also the provisionally closed Chapter "Climate Action" of the EU – Moldova Association Agreement, which is currently under negotiation, foresees co-operation on the development and implementation of an overall climate strategy and action plan for the long-term mitigation of and adaptation to climate change; vulnerability and adaptation assessments; and a National Strategy for Adaptation to Climate Change.

"Environment, Climate Change and Disaster Risk Management" is further one of the three main areas of cooperation defined in the United Nations Moldova Partnership Framework for the years 2013-2017, specifying "Strengthened national policies and capacities enable climate and disaster resilient, low emission economic development and sustainable consumption" as one of its priority outcomes.

Methodology

The technical guidelines for NAPs development by the Least Developed Countries (LDCs) were launched at COP-18 in Doha⁸. Guidance for formulation and implementation of NAPs by other developing countries is under development and is expected to be available in late 2013. This project will follow the existing UNFCCC guidelines for LDCs until the specific guidance for the other developing countries is available and the necessary adjustments will be done accordingly.

At COP-17 in Durban, Parties established the NAPs' objectives, namely: i) to reduce vulnerability to the impacts of climate change by building adaptive capacity and resilience; and ii) to facilitate the integration of climate change adaptation in a coherent manner into new and existing policies,

⁶ http://www.entwicklung.at/uploads/media/CS_Moldova_2011-2015.pdf

⁷ http://www.un.md/news_room/pr/2012/undaf/United_Nations_Republic_of_Moldova_Partnership_Framework.pdf

⁸ http://unfccc.int/files/adaptation/application/pdf/nap_technical_guidelines.pdf

programmes and activities. The objectives pertain particularly to development planning, processes and strategies within all relevant sectors and at different levels, as appropriate⁹.

The key principles guiding the NAP process are that NAPs should be:

- i) Participatory, country-owned, country-driven and fully transparent;
- ii) Multidisciplinary, leading to integration of adaptation into development;
- iii) Complementary to existing plans, programmes and mechanisms;
- iv) Oriented towards sustainable development;
- v) Guided by sound environmental management;
- vi) Guided by gender-sensitive approaches;
- vii)Considerate of vulnerable groups, communities and ecosystems;
- viii) Guided by best available science;
- ix) Cost-effective in the wider context of sustainable development; and
- x) Iterative, flexible, dynamic and continuous with clearly set time frames 10.

Working in 166 countries, UNDP uses its global presence and experience to help nations strengthen their institutions by supporting the development of policies, processes, skills, knowledge they need to perform better and contribute to the achievement of national development goals. The project will be guided by UNDP's 5 step capacity development approach¹¹:

- 1. Engage stakeholders on capacity development
- 2. Assess capacities and needs
- 3. Formulate a capacity development response
- 4. Implement a capacity development response
- 5. Evaluate capacity development.

The three levels of capacity are the enabling environment (incl. policies, legislation, power relations and social norms), the organisational level (incl. internal policies, arrangements, procedures and frameworks) and the individual level (incl. technical skills, knowledge and experience). The capacity development approach embedded by the project design targets all three levels of capacity, as they are mutually interactive. There are four core issues which are specifically taken into consideration as having a strong influence on capacity development at the different levels: Institutional Arrangements, Leadership, Knowledge, and Accountability.

When working at the regional and local level, the well-tested UNDP community mobilisation approach will be applied – adjusted to the scope and needs of the project - ensuring that all interventions and pilot projects are planned, established and managed with maximum involvement of the beneficiaries, thereby ensuring their ownership of initiatives. Community mobilisation is a process through which action is stimulated by a community itself, or by others, that is planned, carried out and evaluated by a community's individuals, groups and organisations on a participatory and sustained basis to improve overall standards of living in the community/region. As such, the process of community mobilisation can also be seen as a powerful tool in the empowerment of women and vulnerable groups.

The project will build on lessons learned and outputs of previously successfully implemented projects and will seek to create synergies with currently on-going and future projects to the maximum extent possible. An overview of related projects and initiatives is provided in Annex 2. Specifically the project will intensively collaborate with on-going UNDP projects, including the Joint Integrated Local Development Programme, the Moldova Disaster and Climate Risk Reduction Project and the Clima East pilot project on ecosystem-based approaches to climate change. The

⁹ FCCC/CP/20110/97/Add.1

¹⁰ FCCC/SBI/2011/12

¹¹ The UNDP CD Approach is described in more detail for example at http://www.undp.org/content/undp/en/home/ourwork/capacitybuilding/approach/ or http://www.undp.org/content/dam/aplaws/publication/en/publications/capacity-development/capacity-development-a-undp-primer/CDG_PrimerReport_final_web.pdf

GEF Small Grants Programme¹² will serve as a model for the implementation of the Small Grants Scheme under Activity 3.1 when working with NGOs and CBOs at the community level.

¹² Further information is available on http://sgp.undp.org/. More information on the GEF SGP Moldova can be found at http://sgp-moldova.org

II. PROJECT STRATEGY/ LOGIC OF INTERVENTION

The **goal** of this project is to ensure that Moldova has a system and capacities in place for medium- to long term adaptation planning and budgeting with the overall aim to reduce vulnerability of the population and key sectors to the impacts of climate change. The project **objective** is to support Moldova to put in place its National Adaptation Plan (NAP) process contributing to and building upon existing development planning strategies and processes and to implement priority adaptation actions.

In order to achieve the project objective, the project interventions are designed to achieve the following outputs:

Output 1. Institutional and policy frameworks for medium- to long-term gender-sensitive adaptation planning and budgeting in place

This Output will assess gaps and relevant policies and lay the basis for medium- and long-term adaptation planning and action in Moldova.

Activity 1.1. Country-driven, gender-sensitive and participatory National Adaptation Plan developed, taking into consideration vulnerable sectors, groups, communities and ecosystems

The National Adaptation Plan (NAP) will be based on the National Adaptation Strategy and will be developed through a country-driven, gender-sensitive and participatory process. First, a stock-taking of information and processes that are of relevance to the NAP process in Moldova (starting with initiatives that support medium- to long-term climate resilient planning and budgeting) will be conducted. Technical assistance will be provided to conduct capacity assessments, identify gaps in information and processes for integrating climate variability and change into medium to long-term planning, and facilitate multi-stakeholder engagement in defining the scope of the national and sector adaptation planning and budgeting process.¹³

Second, a national and sub-national participatory process for iterative NAP development will be established, including i) engaging key national and sub-national institutions and civil society organisations relevant to the NAP process; ii) identifying and strengthening existing coordination mechanism for climate change that will drive the NAP process; iii) strengthening leadership within key Ministries by sensitizing national and sub-national policy-makers (especially in finance, economy and other relevant line Ministries) and other stakeholders, on the importance of medium-to long-term planning and budgeting for adaptation; iv) developing a long-term in-country mechanism for maintaining sustainable institutional arrangements for medium- to long-term planning and budgeting for adaptation.

Finally, based on these initial assessments and consultations, an operational and fully budgeted roadmap to undertake the NAP process in Moldova will be developed and implemented. A sustainable institutionalized mechanism for the NAP process will be identified and a national long-term strategy to maintain this mechanism beyond project lifetime will be proposed. A gender sensitive approach will be applied, entailing the participation of women and gender experts during the preparation of the NAP Roadmap, the NAP, sector plans and Financing Strategy (incl. in Activities 1.2., 1.3., 1.4.) as well as encouraging adequate representation of women in the National Commission, the inter-ministerial working group, and other consultative and decision-making bodies.

Activity 1.2. Adaptation mainstreamed in priority sectoral development plans

The NAP process will be based on integrating adaptation into existing national development policies, programmes and action plans and in particular into priority sectoral development plans to ensure a strategic and properly aligned approach to addressing climate change adaptation. The

¹³ This will be a nationally driven process, assisted by the project. Further, a main prerequisite for selecting sectors for mainstreaming (Activity 1.2) and elaboration of Adaptation Plans (Activity 1.3) is the declared interest and ownership of the process by the responsible sector Ministry.

priority sectors include those identified in the National Adaptation Strategy - agriculture, water, forestry, health, energy, and transport. An additional priority to be considered are the national policies on Regional Development, forming a framework for a large number of other sector policies at the regional and local level. This prioritization will be confirmed during the inception phase of the project through stakeholder consultations.

Under this Activity a stock-taking exercise of existing development plans in the sectors identified for mainstreaming under Activity 1.1 will be undertaken and opportunities to mainstream adaptation identified. Following this, sectoral development plans in at least two priority sectors will be updated to address climate variability and change related risks and opportunities.

As sectors will be developing and climate will not remain static, these updated sector policies will need to be periodically revised from the climate change perspective. The project will attempt to propose a sustainable mechanism for this, which will be part of the broader mechanism for the NAP process, established under Activity 1.1.

Activity 1.3. Adaptation Plans for selected sectors developed

Different sectors may require different approaches to ensure successful adaptation mainstreaming. Some sectors, such as health and agriculture, have already developed sectoral strategies to which mainstreaming could be applied (Activity 1.2). In other sectors the development of a sectoral adaptation plan will be more appropriate. Under this Activity Adaptation Plans will be developed for at least 2 priority sectors. These sectors will be identified during the stakeholder consultations under Activity 1.1.

Activity 1.4. Financing Strategy to meet priority national adaptation costs developed

To identify national, donor, and international financing sources to meet priority adaptation costs identified by NAP and sector adaptation plans and to ensure linkage to the national and local budget processes, a Financing Strategy will be developed. A focus will be on economic analysis and costing of actions, review of current spending, identification of innovative instruments and financing mechanisms, including at the local level. The review of current spending, as part of identifying available means for financing adaptation priorities, will include expenditures from the national budget and extra-budgetary sources, subsidies and other financing mechanisms, including funds used to address climate change impacts. In two-three pilot districts, current spending on activities that could be considered disaster risk reduction and climate change adaptation measures (but not necessarily marked as such) will be reviewed, as well as effectiveness of these allocations assessed. Appropriate financial instruments and mechanisms will be identified through consultations with stakeholders, a comprehensive literature review, and building on international and regional best practice. The project will work with the government to assist in addressing the adaptation needs through budgetary planning and allocation processes at national, sub-national and local levels. An assessment will be conducted to attempt to mobilize resources for adaptation through Public Private Partnerships (PPP) and other innovative financing instruments to be piloted through Output 2 and Output 3.

Activity 1.5. Communication and outreach strategy for support to medium- to long-term adaptation planning developed and implemented

Finally, to communicate the importance of climate resilient development and improve communication between science and policy communities and between different levels of the local public administrations and the government on this issue, a Communication and Outreach Strategy will be developed and implemented. Among other undertakings, the Strategy will include outreach activities with the donor community and the private sector to attract funding for the NAP process and implementation. The Strategy will be based on a comprehensive needs assessment, which will be part of the needs assessment under Activity 1.1. As potential final outreach product, a "Guidebook for Mayors" can be produced (to be confirmed during the needs assessment), building on materials available in the region and on the lessons and best practices from Output 3. The project will make all efforts to establish pro-bono collaboration with TV and radio stations as an additional mechanism for outreach and dissemination of best practices and project results, capitalizing on the materials produced within the project and disseminating them to a wider audience.

Output 2. Institutional and technical capacities for iterative development of comprehensive NAP strengthened

Work under this Output will strengthen national capacities for climate change monitoring, adaptation planning and implementation. Dissemination of data to decision makers and end-users will be improved.

Activity 2.1. Sectoral planners are trained in the use of the tools and approaches to advance medium- to long-term adaptation planning and budgeting and implementation

Sectoral guidance and methodologies will be translated/updated and made available and targeted trainings will be organized for policy-makers and practitioners in the use of the tools and approaches to advance medium- to long-term adaptation planning, budgeting and implementation. For example, a comprehensive training on integrating adaptation into core development policy, strategy and legislative planning for policy-makers, decision-makers and legislators will be organized. Sectoral planners and practitioners will be trained in assessing the immediate and long-term socio-economic costs of climate change. Participatory adaptation planning and budgeting will be supported at the local level, including through training relevant public authorities (in coordination with Activity 3.1.). A gender perspective concerning the different climate change impacts on men, women, girls and boys, will be systematically integrated in the above. Finally, thematic training workshops on the NAP process and implementation will be organized (for example, project/programme management and monitoring, gender mainstreaming, climate resilient planning and budgeting). Equal participation of women decision makers, planners and practitioners will be pursued.

Activity 2.2. Data availability, management, dissemination and capacity to support adaptation planning improved

The State Hydrometeorological Service (SHS) will be supported to improve data and public service quality and availability. In particular, climate data processing software will be provided to the SHS in order to upgrade its climate data management system and to make the climate services more end-user friendly and in line with the World Meteorological Organization (WMO) standards. The software will be linked to a server storing data received from the observation network. The procurement, configuration and installation of the server will be coordinated with the national E-Government Center.

Targeted trainings for a group of SHS operative forecasters, such as trainings in satellite meteorology, radar meteorology, numerical weather prediction will be conducted in Moldova, in collaboration with the Austrian Central Institute for Meteorology and Geodynamics (ZAMG). An opportunity to organize trainings for managerial level staff in Austria, for example, in early warning and civil protection systems, observation network and communication systems, data processing systems, and climate services will be explored.

The existing SHS website will be upgraded and restructured to enable provision of quality services via Internet. The revamped website will have a more user-oriented interface and include new features, such as a possibility to create accounts for different groups of users.

Activity 2.3. Partnerships to support adaptation planning and advance adaptation action in Moldova established

Importantly, methodological exchange and strategic partnerships will be built with institutions that are advanced on certain aspects of climate change adaptation and climate risk management. These include the Austrian Hydrometeorological Service (ZAMG), Austrian Environment Agency (Umweltbundesamt), Austrian Civil Protection Agency and others. In particular, support will be provided to the SHS to become a member of Meteoalarm community¹⁴ in order to upgrade the existing Early Warning System. This will require a number of governmental decisions to be elaborated and adopted. Partnership with the Austrian ZAMG, one of the main developers of the Meteoalarm system, will be sought.

Finally, options for Public Private Partnerships to finance adaptation interventions (in line with the Financing Strategy elaborated under Activity 1.4.) will be facilitated and piloted (incl. under Output

¹⁴ Meteoalarm is a EUMETNET project, strongly supported by WMO and active in 29 countries in Europe (www.meteoalarm.eu)

3). For example, in the project Inception Phase opportunities will be explored to expand the PPP with the private sector providers and operators of small automated weather stations in view of complementing the climate information collected by the existing national network (in coordination with Activity 2.2.), and in view of their use as basis for weather-index insurance products. Another example of a PPP that will be further explored is the cooperation with the mobile phone operator Moldcell on sms and smart-phone based early warning systems. Based on the initial feasibility, concrete mechanisms will be developed and piloted under this Activity and Activity 3.1.

Output 3. Adaptation interventions in priority sectors implemented including demonstration projects at a local level to catalyse replication and upscaling

This Output will facilitate implementation of urgent adaptation actions and transfer of best adaptation practices to and within Moldova. It will also bring attention to the medium- and long-term adaptation priorities in the country.

Activity 3.1. Priority and innovative on-the-ground adaptation measures implemented in the most vulnerable areas/sectors in each of the three Development Regions

Under this Activity, priority innovative adaptation measures (projects) will be implemented in the most vulnerable areas/sectors in each of the three Development Regions of Moldova North, Centre and South. The priority sectors will include those identified in the National Adaptation Strategy - agriculture, water, forestry, health, energy, and transport.

A Small Grants Scheme to finance these adaptation measures will be established. The detailed Small Grant mechanism, including the final selection criteria, will be consulted with ADA and presented for approval to the Project Board after the project Inception Phase (first four months of the project implementation).

The selection of adaptation projects financed by the Small Grants Scheme will start with identification of target districts in consultation with the Regional Development Agencies (North, Centre and South) and other important stakeholders. This will be followed by identification of priority issue or issues for each district (water, agriculture, forestry, health, etc.). At least one district from each of the three Development Regions of Moldova will be selected. A call for expressions of interest will be issued to identify the grantees. Communities, groups of communities, NGOs, and private sector enterprises will be eligible to participate. Grant recipients have to be legal persons/entities officially registered in the Republic of Moldova. Project beneficiaries will be expected to provide co-funding in the amount of not less than 20% (on average) of the total costs. The Small Grants Scheme will include M&E system for tracking project results and a mechanism for oversight of project implementation and assessment of results. The measures will be win-win and low-hanging fruit type, identified through the National Communications, NAS and NAP processes (for an initial menu of potential adaptation measures see Annex 1). The measures with multiple development benefits, especially those enhancing livelihood opportunities and promoting sustainable economic growth of rural communities, and with highest upscaling potential will be selected. The project selection process will include screening against social and environmental criteria as per UNDP, ADA and Government guidelines, incl. gender equality. Importantly, the measures will be selected through a participatory process involving local communities and stakeholders.

Additionally, local level prevention capacities will be strengthened with a comprehensive civil protection exercise in at least one district in the framework of the Agreement on Civil Protection and Emergency Support signed between the Republic of Moldova and Austria. Trainings will be provided by Austrian counterparts focusing on prevention and early warning.

Activity 3.2. A pipeline of strategic adaptation interventions for medium- to long-term implementation developed

¹⁵ The ADA supported Business Partnership with Pessi Instruments GmbH, focusing on improved risk management for farmers in Moldova, will be a first priority entry point. Further information is available on:

 $http://www.entwicklung.at/zahlen_daten_und_fakten/projektliste/?tx_sysfirecdlist_pi1\%5BshowUid\%5D=676\&cHash=249407e42194a987f609fae09fea7f8c$

Moldcell management already expressed its strong interest in this cooperation.

In addition to implementing priority adaptation initiatives in three Development Regions of Moldova, a pipeline of strategic adaptation interventions for medium- to long-term implementation, which is beyond life of the current project, will be developed. Selection of these interventions will be based on NAP priorities. Project fiches will be elaborated and feasibility studies for several selected strategic interventions will be conducted. Where feasible, the project owners or proponents will be directly involved in the preparation of the project fiches following a "training on the job" approach and co-financing for feasibility studies will be sought.

Activity 3.3. Replication and upscaling of adaptation interventions supported

Lessons learned will be collected from all implemented adaptation measures and disseminated to national and local level stakeholders, including through mass media, to facilitate replication of successful approaches. Outreach materials (publications, video spots) with case studies and/or lessons learned that would capture experiences from adaptation initiatives and/or NAPs process in Moldova will be produced. Under this Activity, support will be also provided to the government and private entities in adoption and upscaling of the piloted approaches.

Pilot project beneficiaries will be obliged through the grant contract to accommodate experience sharing events/seminars organized during the project implementation and at least once after the project finalization as well as to provide inputs in training/experience sharing events at the regional/national level. Such events may be organized in cooperation with the Regional Development Agencies and other interested parties. Participants will include representatives of enterprises and institutions that face problems similar to those addressed by a pilot project, as well as policy makers in the respective areas.

Target groups and project beneficiaries

The target groups for capacity development activities, specifically under Output 2, are decision makers and civil servants from all relevant line Ministries (most importantly Environment, Agriculture and Food Industry, Regional Development and Construction, Finance, Economy, Health), Government and State Chancellery involved in the development and implementation of national and sector policies, strategies and plans (in total about 100 persons), and planners (civil servants) at the district and local level (in total about 150 persons). Policy and decision makers will be equipped with better decision support tools and civil servants will have improved skills enabling them to better perform their policy development, budgeting and implementation functions.

Other target groups include NGOs and CBOs active in the relevant fields at the regional and local level including Women's Associations and community initiative groups (at least 20 people from 4 organizations/initiative groups per target district) which will be involved in capacity development activities at the local level in the target districts. Specific attention will be given to addressing the needs of vulnerable groups, such as boys and girls, elderly and people with disabilities. The target group for producing/providing improved weather and climate data availability includes civil servants and researchers from the National Hydrometeorological Service and relevant academic institutions (in total about 30 persons).

Direct beneficiaries are the local population of at least 3 pilot districts (one in each Development Region, in total about 240,000 persons) with the potential of upscaling to at least 10 districts where outreach activities (including dissemination of case studies and lessons learned in the framework of targeted workshops to foster replication of pilot activities) will be implemented in the framework of Output 3. Indirect beneficiaries include the population of Moldova, currently 3.56 mill out of which 51.9% women, 16.2% children in the age of 0-14, 14.8% aged over 60, and 58.3% rural residents¹⁷, benefitting from the improved policies, specifically in the most vulnerable priority sectors mentioned in the project background. Indirect beneficiaries through replication and upscaling of adaptation actions include both public and private actors in the priority sectors, including for example farmers and farmers associations, or health sector professionals.

Partnership Strategy and Coordination Mechanisms

¹⁷ Not taking into account the municipality of Chisinau, the % of rural residents in the 3 Development Regions ranges between 65 – 80%.

The coordination of the NAP process at inter-ministerial and cross-sectoral level and between central and local levels of administration will to the extent possible build on and strengthen existing mechanisms and bodies. More specifically, the following government structures and their associations at national, regional and local levels will be involved in the planning process, facilitate coordination and communication, and provide guidance during the promotion and implementation of climate change adaptation activities:

(1) The National Commission for the implementation and realization of the United Nations Framework Convention on Climate Change and the mechanisms and provisions of the Kyoto Protocol (National Commission)

The National Commission, established by Government Decision no. 1574 of 26.12.2003, is the national authority responsible for coordination of national and international activities for the implementation of the UNFCCC and provisions of the Kyoto Protocol. It is currently composed of 18 members (2 Parliament, 11 Government, 2 Academy of Science, 2 University and 1 private sector representatives).

Additional functions of the Commission are the development and implementation of policies and strategies related to climate change adaptation and mitigation. The draft National Adaptation Strategy foresees that upon its approval the Commission shall be responsible (after changing its composition and mandate) for overseeing its implementation and acting as supreme national authority to coordinate and promote activities in the field of climate change adaptation. As such, the Commission is expected to play a crucial role in coordinating the national NAP process.

(2) Inter-ministerial Working-Group established by Ministerial Order for overseeing and technically guiding the development of the National Adaptation Strategy

The Inter-ministerial working-group which was established in 2010 is proposed to continue its mandate to facilitate the consultation and coordination of the NAP roadmap development under Output 1.

(3) Regional Development Agencies (RDAs)

The RDAs, established in each of the 3 Development Regions of the country, are responsible for analysing and promoting the socio-economic development in the region and to develop, coordinate, monitor and evaluate the implementation of regional development strategies, plans, programmes and projects. As such the RDAs will serve as important partners in facilitating communication between the central and local level, guiding project implementation in the pilot regions and in upscaling pilot activities at the regional level. The "National Strategy for Regional Development" (2010-2012) and its regional Operational Strategies will also serve as an entry point for Climate Change adaptation mainstreaming in line with the socio-economic and environmental development objectives promoted by the Strategies.

(4) Congress of Local Authorities in Moldova (CALM)

CALM is the biggest association of Local Public Authorities in Moldova and currently has over 400 members, including the municipality of Chisinau. The objectives of CALM are to contribute to promote the common interests of its members; to solve and manage public needs on behalf and in the interest of local authorities; to grant different services to its members; to represent the common interests of its members in relations with the Parliament, Government, other public authorities and national institutions and in relations with international institutions and organisations. CALM actively promotes successful models and practices in local and regional development, inter-municipal cooperation, provision of public services and good local governance. It serves as a center of information, assistance, training, expertise, and experience exchange, and will as such be an important partner for outreach activities to promote replication and upscaling. It further promotes the establishment of an effective partnership with the Government and central public authorities based on principles of equality, collaboration, and transparency and will as such serve as mechanism to facilitate coordination of activities and flow of information between national and local level.

(5) Civil Protection and Emergency Situations Service (CPESS)

Where relevant, specifically under Output 2 and 3, activities will be implemented in partnership with CPESS.

(6) Civil Society

The project will collaborate closely with civil society in all project stages, with civil society organisations being both beneficiaries and partners in project implementation. At the national level, civil society will be involved in the NAP consultation and development process, at the local level NGOs, community based organisations, women organisations will participate in capacity building, training and knowledge sharing activities. A civil society representative will also be invited as representative to the Project Board.

(7) Media

Media will be an important partner in implementing the Communication Strategy, for outreach activities and in achieving wide visibility of project results. Strategic pro-bono partnerships with TV, radio and print media will be established as additional mechanism for wide dissemination of project knowledge products, best practices and lessons learned.

The Partnership Strategy will be further refined during the project inception phase. The identification and definition of the most appropriate coordination mechanisms at national and sector level and between different levels of administration will also be part of the NAP process design and roadmap (project Output 1).

III. RESULTS AND RESOURCES FRAMEWORK

Project Results Framework

Project Goal: Moldova has a system and capacities in place for medium- to long term adaptation planning and budgeting with the overall aim to reduce vulnerability of the population and key sectors to the impacts of climate change (by building adaptive capacity and resilience)

	Indicator	Baseline	Targets End of Project	Source of verification	of Risks and Assumptions
Project Objective To support Moldova to put in place its National Adaptation Plan (NAP) process contributing to and building upon existing development planning strategies and	Ind1. Moldova has operational individual, institutional and systemic capacities in place required to develop and advance medium to long-term National Adaptation Plans (YES/NO) ind2 ¹⁸ . % of project budget spent on advancing gender issues	Adaptation Strategy (NAS) under the direction of the Ministry of Environment with an Interministerial Working Group steering the process. The NAS is intended to serve as an umbrella strategy that creates the enabling environment for specific sectors and ministries to develop their own concrete action plans for adaptation. Currently, the Third National Communication is being developed that will produce national vulnerability baseline and analysis of country's current adaptive capacities. Some sectors (agriculture, health) are advancing with integrating climate change	T1. YES	Report of consultations on NAP Survey at the start of the project to further identify capacities and needs Project Progress reports	Government and LPAs decision- makers recognise the importance of climate change adaptation and are committed to facilitating the necessary processes required in alignment with existing medium- to long-term planning processes and cycles Key institutions recognise the economic benefits of embarking on comprehensive adaptation planning and integrating adaptation needs in development plans
implement priority adaptation actions		ricks in their sector policy and plans. However, there is no systematic process in place of assessing and integrating climate change risks and opportunities in the development planning in Moldova. Knowledge and understanding of climate change issues is primarily concentrated in the Ministry of Environment, the State Hydrometeorological Service, and Academia, while sectoral planners have rather limited understanding and/or capacity for climate resilient planning.			Climate Change mainstreaming efforts may be hampered by competing sector priorities in the face of budget restrictions The formal adoption of the draft National Adaptation Strategy can be further delayed given the uncertain current political situation (the acting Government is not allowed to promote and approve legislative and regulatory acts)

During the project inception Phase together with the Project Team a detailed breakdown of the indicator (concrete activities to be measured) will be developed. The project will further undertake detailed planning of project activities and monitoring, and the development of operational project indicators in such a way so as to ensure that gender disaggregated data will be collected to the extent possible, allowing for the indicator to be efficiently tracked.

Key Government representatives and stakeholders recognise the value of engaging in regular debate about the medium- to long-term implication of climate risks and adaptation Senior planners and decision-makers recognise the importance of climate change adaptation and are committed to support necessary policy changes Lack of a practice of inter-sectoral policy development and effective coordination between institutions, organizations and authorities may put obstacles to the NAP development process						
Policies, plans, programmes NAP process roadmap Project progress reports						
T3. At least four policies/plans/programmes for at least 2 sectors introduced/adjusted T4. YES (national NAP roadmap developed; strategy for maintaining sustainable institutional mechanisms in place)	Indic. Costs (EUR)	95,500	22,200	37,400	28,200	12,900
Moldova has identified urgent and immediate needs for adaptation through National Communications and National Adaptation Strategy and started planning for those through some sectoral strategies. However, the country lacks capacity, data, expertise, institutions and financial resources to undertake medium- to long -term orientated adaptation planning. Institutional structures for mainstreaming climate risk into policy targets are lacking and financial allocations to support adaptation planning and implementation are not made through the national and sector budgeting processes. Institutional mechanisms for cross-sectoral coordination and planning are weak and no communication and outreach strategy in support of medium-to long-term adaptation planning are in place.	Inputs	- Consultation w/shops - National consultants - International consultants - Working groups	 Consultation w/shops National consultants International consultants Working groups 	 Consultation w/shops National consultants International consultants Working groups 	- Consultation w/shops - International consultants	- National consultants - Mass media - Publications
Ind3. Number of plans developed or policies, plans or programmes adjusted to incorporate climate change risks Ind4. NAP process established in Moldova (YES/NO)		Activity 1.1. Country-driven, gendersensitive and participatory National Adaptation Plan developed, taking into consideration vulnerable sectors, groups, communities and ecosystems	Activity 1.2. Adaptation mainstreamed in priority sectoral development plans	Activity 1.3. Adaptation Plans for selected sectors developed	Activity 1.4. Financing Strategy to meet priority national adaptation costs developed	Activity 1.5. Communication and outreach strategy for support to mediumto long-term adaptation planning developed and implemented
Output 1. Institutional and policy frameworks for medium- to long-term gendersensitive adaptation planning and budgeting in place	Activities	Activity 1.1. Country-driver sensitive and participatory Adaptation Plan developed, consideration vulnerable secto communities and ecosystems	Activity 1.2. Adaptation mainstrear priority sectoral development plans	Activity 1.3. Adaptat	Activity 1.4. Financ priority national developed	Activity 1.5. Communi outreach strategy for supporto long-term adaptatio developed and implemented

Tools and approaches developed by the project are considered practical, locally appropriate, innovative, sustainable and cost effective Key Government representatives and stakeholders recognise the value of project-related training initiatives Established partnerships are sustainable beyond life of the project Limited institutional absorption capacity has to considered in the design of capacity development activities				
Workshop/training reports Project progress reports Survey at start of project to determine existing knowledge Anowledge Araining entry and exit surveys	Survey within SHS and among main clients of SHS			
T5. By the end of the project, appropriate guides for at least 3 priority sectors and related resource materials developed and dispersed through workshops and existing knowledge existing channels T6. At least 70% of relevant planners trained T7. At least 70% confirm increased knowledge and skills	T8. At least two new partnerships established T9. YES	Indic. Costs (EUR)	39,500	44,400
Knowledge and methodology on a coherent NAP process is not present in Moldova. Relevant government entities and other stakeholders have limited knowledge of available tools and methods to support their effort in advancing to medium- to long-term adaptation planning processes in the context of their development strategies. While climate change mainstreaming is foreseen in the draft NAS, policy guidance for integrating climate change adaptation into national and sector development planning is not yet applied. Guidance for assessing and designing adaptation actions is fragmented and weak in methods to cost, prioritise and designing and linking them to the national budget process. The government entities have limited institutional partnerships with global and regional knowledge management institutions and other governments in place to strengthen capacities for medium- to long-term adaptation planning and coordination.		Inputs	 International and national consultants Workshops, surveys, training programmes, knowledge exchange sessions Training materials 	 Equipment, software, hardware for State Hydromet Service Trainings expert exchange visits
technical tools, detailed methodologies (by sector) available to support medium- to long-term adaptation planning in all key sectors, across sectors and at national levels and at national levels and regional/local level trained (gender-disaggregated) Ind7. Policy- and decision-makers have increased knowledge and skills necessary for addressing climate change adaptation in planning and budgeting	Ind8. # of institutional partnerships established Ind9. Data management and service quality in SHS improved (YES/NO)		Activity 2.1. Sectoral planners are trained in the use of the tools and approaches to advance medium- to long-term adaptation planning and budgeting and implementation	Activity 2.2. Data availability, management, dissemination and capacity to support adaptation planning improved
Output 2. Institutional and technical capacities for iterative development of comprehensive NAP strengthened		Activities	Activity 2.1. Sectors in the use of the to advance medium- to planning and implementation	Activity 2.2. management, disset to support adaptati

Activity 2.3. Partnerships to suppor adaptation planning and advance adaptation action in Moldova established	ships to support and advance oldova established	- Expert exchanges/ research visits - International experts	39,500		
Adaptation adapta interventions in interventions in priority sectors implemented including demonstration adapta projects at a interve local level to pipelin catalyze replication and upscaling studies learned the property.	Ind10. Number of adaptation interventions implemented adaptation interventions in the pipeline pipeline studies and lessons the project	A number of priority adaptation interventions have been identified through National Communications and NAS, however, linkages to the national/sub-national budget processes are not established and financial resources are limited or not available to implement them or even to conduct feasibility studies. Mechanisms to systematically identify and mobilise national and international financing are not in place. Costs for prevention and preparedness actions are generally not foreseen in local budgets. Awareness on the cost-effectiveness of noregret measures is still limited and information on adaptation options and best practices is not systematically collected and disseminated.	T10. At least five interventions implemented T11. At least 15 interventions in the pipeline (project fiche and/or feasibility study developed) T12. At least five case studies/ LL developed	Project progress reports Publications Project fiches, feasibility studies	Sufficient cooperation between relevant government agencies and stakeholders in the sharing of relevant information Donors, IFIs and private investors are interested in funding adaptation actions from pipeline; access to international climate financing mechanisms is enabled
Activities		Inputs	Indic. Costs (EUR)		
Activity 3.1. Priority and inr the-ground adaptation implemented in the most areas/sectors in each of Development Regions	Priority and innovative on- adaptation measures in the most vulnerable in each of the three Regions	- Stakeholder consultations - International and national consultants - Contractors/service providers - Small grants (20% co-financed by LPAs, RPAs)	190,300		
Activity 3.2. A pipeline of strategic adaptation interventions for medium- to long-term implementation developed	line of strategic is for medium- to on developed	- Stakeholder consultations - International and national consultants	44,000		
Activity 3.3. Replication and upscaling of adaptation interventions supported	s supported	 International and national consultants Publications Workshops at district level Media events 	15,000		
Project evaluation and audits	nudits	- International and national consultants - auditors	15,400		
Project Management		- Personnel costs - Communication and IT - Supplies	006'66		
Miscellaneous		- Unforeseen at this stage	4,900		

UNDP GMS Fee	- General Management Services (8%)	55,100

Overview of project co-financing

The Government of Moldova will co-finance project implementation through provision of project premises and facilities and provision of project inputs (to be further specified during project development). The Small Grants Scheme will have a co-financing requirement of at least 20% to be covered from Regional and Local Public Authorities, NGOs or other participating entities.

UNDP will report on the degree of fulfilment of these contributions in the context of annual progress reports.

	Description/	Source of co-financing	Estimated amount (in EUn) for 50 months of project implementation
Logistic and operational costs - Office Space - Utilities (incl. electricity) - water supply/sewerage	The project office and utility costs will be provided as in-kind co-financing by the Government of Moldova/Climate Change Office	Government of Moldova	18,025 EUR 12,600 3,100 745 1,580
Consulting services from government, academia and NGO sectors	These services will be provided by the members of the National Commission and Inter-ministerial Working Groups. It is estimated that the groups will consist of 25-30 representatives who will each dedicate up to 10 working days per year at an average cost of EUR 20/day.	Government of Moldova NGOs	18,000 EUR
Small Grant Scheme	The beneficiaries of the pilot projects under Output 3 are expected to contribute with not less than 20% (on average) to the overall cost.	Regional/Local Public Authorities NGOs/CBOs Private Sector Enterprises	28,000 EUR

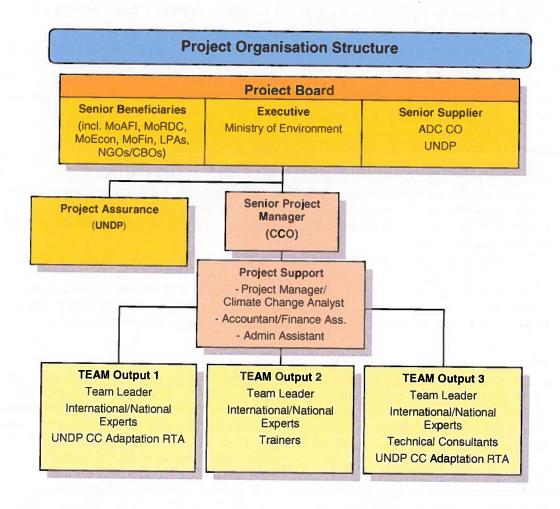
IV. TIME SCHEDULE

						Quarter	ter	1			İ	
Activities	-	2	8	4	r.	9	7	œ	တ	10	=	12
INCEPTION PHASE (4 months)												
shment of the project the workplan for the Y1, etc.	×											
MPLEMENTATION PHASE (30 months)												
Output 1. Institutional and policy frameWorks for medium- to long-term gender-sensitive adaptation planning and budgeting in place	gend	er-sen	sitive	adapt	ation	planni	ng an	d buc	dgetin	ging	ace	
1.1. Country-driven, gender-sensitive and participatory National Adaptation Plan developed, taking into consideration vulnerable sectors, groups, communities and ecosystems	×	×	×	×		×	×	×				
1.2. Adaptation mainstreamed in priority sectoral development plans	×	×	×	×		×	×	×				
1.3. Adaptation Plans for selected sectors developed	×	×	×	×		×	×	×	×	×		
1.4. Financing Strategy to meet priority national adaptation costs developed						×	×	×			e ×	
1.5. Communication and outreach strategy for support to medium-to long-term adaptation planning developed and implemented	×	×	×	×		×		×	×	×	×	×
Output 2. Institutional and technical capacities for iterative development of comprehensive NAP strengthened	nt of co	ompre	hensiv	re NA	P stre	ngthe	peu					
2.1. Sectoral planners are trained in the use of the tools and approaches to advance medium- to long-term adaptation planning and budgeting and implementation		×	×			×	×		×		×	* .
2.2. Data availability, management, dissemination and capacity to support adaptation planning improved				×		×	×	×	×	×	×	
2.3. Partnerships to support adaptation planning and advance adaptation action in Moldova established	×	×	×	×		×	×	×	×	×	×	×
			1000		ı							

¹⁹ Update of the strategy

and upscaling			lalyze r	plicant
3.1. Priority and innovative on-the-ground adaptation measures X X X X X X X X X X X X X X X X X X X	×	×	×	×
3.2. A pipeline of strategic adaptation interventions for medium- to X X X X X X X X X X X X X X X X X X	×	×	×	×
3.3. Replication and upscaling of adaptation interventions x x x x x supported	×	×	×	×
CLOSURE PHASE (2 months)				
Project closure, evaluation, reporting				×

V. MANAGEMENT ARRANGEMENTS



The main decision making body for the project will be the *Project Board*, which will include representatives of the main relevant target groups/beneficiaries, incl. representatives of women organisations and vulnerable groups, donor agency and implementers. The Ministry of Environment, as the central public authority with the mandate to work on climate change policy development and implementation and national focal point under the UNFCCC, is proposed as Senior Executive (National Coordinator) and Chair of the Project Board. The National Coordinator represents the interests of the Government of Moldova and is responsible for overseeing project implementation, while closely coordinating with all other relevant line Ministries and regional/local authorities.

The project will be implemented under National Implementation Mechanism (NIM) and managed in line with the "Harmonised Approach to Cash Transfer" (HACT). HACT is a common operational framework of cash transfers to government and non-government institutions and is the UN system's response to strengthening national capacities for management and accountability with a view to gradually shifting to utilizing national systems in the context of Government's increasing

interest towards expanding the role of public agencies in implementation of external assistance projects. More specifically it contributes to increasing national capacities to plan, manage, implement, monitor and account for results of programmes and policies as well as to enhance public financial management and procurement systems. UNDP as the contracting partner remains fully accountable towards the donor for the purpose-intended utilization of funds under the project.

The Climate Change Office, which acts as the *responsible party* on behalf of the Ministry of Environment, is providing procurement, finance, human resources, technical and other services necessary to produce the outputs of the project, and will facilitate coordination and monitoring during the entire project cycle. In providing the services the Office will ensure full compliance with the relevant national procurement and finance procedures and regulations, proper maintenance of the project designated account and project accounting records, management of funds flow, preparation of quarterly and annual project financial and progress reports. UNDP will commission scheduled independent financial audits of the project accounts in line with UNDP policies and procedures. The sharing of the related audit reports with the donor will be done in accordance with the decisions of the Executive Board of UNDP. Only funds transferred by UNDP to the Climate Change Office will be subject to the audit. Next to financial aspects the scope of audits of national partners can also cover a systematic assessment of the partner's processes as well as generate recommendations for capacity development of the partner. The ToR for the Audits will be shared with ADA before being published.

The Senior Project Manager will liaise and work closely with all partner institutions to link the project with complementary national programmes and initiatives. The Senior Project Manager is accountable to the Ministry of Environment and UNDP for the quality, timeliness and effectiveness of the activities carried out, as well as for the use of funds. Representatives of the Ministry of Environment and UNDP will be invited to participate in the recruitment process and selection of project personnel.

The *UNDP Country Office* and UNDP Regional Centre will be responsible for substantive guidance, technical backstopping and quality assurance; providing project inputs (specifically recruitment of international consultants) and support services (the extent of which will be determined by the Capacity Assessment for Project Implementation of the proposed Responsible Party, which is being undertaken); providing financial services to the project; overseeing financial expenditures against project budgets approved by Project Board; timely reporting to the donor agency; coordination within the sector. Implementation Support Services (direct project costs) are charged according to the established Universal Price List (UPL). The UNDP Regional Technical Adviser (RTA) on Climate Change Adaptation will provide technical project inputs, quality assurance services and technical expertise. The assurance activities undertaken by UNDP are guided by the results of a standardized assessment of the partner's financial management and procurement systems ("HACT Micro-Assessment", currently being undertaken). These activities can include spot-checks, special audits, regular programmatic monitoring of activities and results, as well as scheduled audits.

The project will use the *direct cash transfer mechanism (DCT)* to transfer funds to the responsible party for the obligations and expenditures to be made by them in support of activities agreed by the Project Board in the Annual Work Plans. Signed AWP are a pre-requisite for providing funds to the responsible party. The project can also use Direct Payments by UNDP to vendors (specifically international consultants) and other third parties and UNDP support to National Implementation, specifically at the initiation phase or when justified for smooth implementation of the project.

Project Partners and Implementation Arrangements

The Project is proposed to be implemented by UNDP Moldova in partnership with the Climate Change Office under the Ministry of Environment.

UNDP Moldova is assigned a leading role for technical assistance on environment and energy, including climate change adaptation and mitigation. It has a strong comparative advantage and long track record of projects in renewable energy, disaster and climate risk management, and sustainable regional, local and urban development. In recent years a specific focus was put on providing support to policy development in the area of climate change and disaster risk management, assisting the development of the National Adaptation Strategy and Low Emission

Development Strategy and currently the National Disaster Risk Management Strategy. This is complemented by capacity development at all relevant levels and implementation of demonstration projects at the regional and local level in partnership with Local Public Authorities, non-governmental organizations, micro-, small and medium-sized enterprises, financial institutions and other private sector actors. UNDP has further extensive experience in managing Small Grants Schemes for NGOs and Local Authorities.

The Environment and Energy Programme of UNDP Moldova currently manages a portfolio of US\$ 25 mln consisting of two full-time dedicated staff, namely, an International Assistant Resident Representative on Environment and Energy who has more than 10 years of professional experience with a specific focus on climate change and a Programme Associate with extensive experience in environment protection and financial supervision of UNDP-supported projects. The Environment and Energy Programme is supported by a well capacitated Service Center, Finance and Operations Unit, with 12 specialized staff members, supporting project implementation with all aspects related to human resource management, finance, procurement, travel and logistics.

Additionally, UNDP Moldova brings to this proposed project not only its own expertise and capacity, but also the expertise, knowledge and best practices from the region, made available through the Regional Technical Advisors and Regional Centre and collaboration with other UNDP offices from Central and Eastern Europe and CIS countries.

The *Climate Change Office (CCO)* was established in 2004 by the former Ministry of Ecology, Construction and Territorial Development by Order no. 21 of 21 February 2004. While the Ministry of Environment continues to be the founder of the CCO, the Office was legally registered at the Chamber of Registration in October 2008 with the mandate to support the Ministry of Environment in implementing Moldova's commitments under the UNFCCC, ratified through the Law No. 404-XIII from 16.03.1995 and Kyoto Protocol, ratified through the Law 29-XV from 13.02.2003.

More specifically, the main tasks of the Climate Change Office include: (a) logistical support to the Government, central and local public administrations, NGO's and educational establishments in the activities implemented and promoted by the Republic of Moldova under UNFCCC and Kyoto Protocol; and (b) implementation of Climate Change projects and programmes, focused on the assessment of greenhouse gases by source and sink categories and producing the National Inventory Reports; development and implementation of mitigation projects; development and implementation of the climate change adaptation projects; evaluation of biological and socioeconomic climate change impacts; ensuring cooperation, promotion and implementation of the activities and projects under the Clean Development Mechanism (CDM) of the Kyoto Protocol; and implementation and facilitation of awareness raising and information activities aimed at civil society, professionals and decision-makers on climate change related issues.

The Climate Change Office has a long-standing experience in the sector being directly involved in the ongoing international Climate Change negotiation process in its function as Secretariat of the National Commission for the implementation of the UNFCCC. The Climate Change Office was engaged in the whole process of development of the National Adaptation Strategy as national partner, including the facilitation of the inter-ministerial working group.

The Climate Change Office has adequate capacity for project implementation in place. It has 2 full-time and 2 part-time employees with relevant technical, project management, financial and procurement background. Additional technical needs for project outputs can be covered as required from the pool 50 national consultants who are part-time affiliated with the CCO. The pool of experts consists of acknowledged professionals with high level of expertise in their respective domain.

In terms of project management, the CCO has a track record of successfully implemented Technical Assistance projects financed through Global Environment Facility, UNDP, UNEP, European Commission, UNIDO, UNECE and others. Mr. Vasile Scorpan (PhD), the Director of the Office, has been coordinating most of the projects since its establishment in 2004.

Also grant scheme will be implemented by the Climate Change Office, meaning that national rules and processes will apply. The Climate Change Office however so far has limited experience in working at the regional/local level and in entering into contractual arrangements with Regional/Local Public Authorities, NGOs/CBOs, and private entities.

UNDP will therefore ensure developing the national partner's capacities in this regard, by sharing best practices and approaches in mobilizing communities and local actors and in monitoring the implementation of the Small Grant Projects, and by assuring the quality and transparency of the whole grant award and implementation process.

VI. MONITORING FRAMEWORK AND EVALUATION

In accordance with the programming policies and procedures outlined in the UNDP User Guide, the project will be monitored through the following:

Within the annual cycle

- On a quarterly basis, a quality assessment will record progress towards the completion of key results and Project Progress Reports (PPR) will be submitted by the Project Manager to the Project Board.
- The Project Board will meet at least quarterly (or as required) to assess the performance of the project and appraise Quarterly Work Plan based on which Cash Transfers are performed. A mid-year and an annual technical and financial project report will be submitted to ADA via the Austrian Coordination Office for Technical Cooperation in Chisinau within four months after the end of the respective reporting period, i.e. i.e. by October 30th and April 30th at the latest using ADA reporting format. The reports will include narrative and financial reports²⁰ and describe the progress of the Project and the use of the grant including a numerical breakdown. These two reports will be prepared by the Senior Project Manager and verified and submitted by UNDP and also shared with the Project Board.
- ➤ An Issue Log will be activated in Atlas²¹ and updated by the Project Manager/UNDP to facilitate tracking and resolution of potential problems or requests for change.
- ➤ Based on the initial risk analysis (see Results and Resources Framework), a risk log will be activated in Atlas and regularly updated by reviewing the external environment that may affect the project implementation. Changes to the project intervention logic are subject to approval by ADA.
- > A project Lesson-learned log will be prepared and regularly updated to ensure on-going learning and adaptation within the organization, and to facilitate the preparation of the Lessons-learned Report at the end of the project.
- > A Monitoring Schedule Plan will be activated in Atlas and updated to track key management actions/events.
- Periodic Monitoring through site visits: UNDP Country Office and the UNDP Regional Centre will conduct visits to project sites based on the agreed schedule in the project's Annual Work Plan to assess first hand project progress. Other members of the Project Board may also join these visits. A Field Visit Report will be prepared by UNDP and will be circulated no less than one month after the visit to the project team and Project Board members.

Annually/Periodically

- Annual Project Review. At the final Project Board meeting of each year, the Project Board will assess the performance of the project and appraise the Annual Work Plan (AWP) for the following year.
- > Scheduled Audits. Scheduled audits of the project will be conducted in accordance with UNDP policies and procedures.

As the financial year is closed by end March, final financial report can be made available only by April of the respective year.

²¹ Atlas is UNDP's online project management platform.

Final Report

At the latest within four months after completion of the Project, two copies of the final report and the detailed final financial statements will be submitted to the Austrian Development Agency (ADA).

Evaluation/Review

- Mid-term Internal Review. A review will be scheduled during the third quarter of the second implementation year. The aim will be to look back on the achieved results, lessons learned, the project overall status vis-à-vis the plans, established project partnerships, and links to other initiatives, as to generate forward-looking recommendations in terms of the overall project relevance, strategy and approach, and the activities ahead in particular. The review will suggest possible changes that would be required in the overall project architecture, and/or on certain activities in order to fulfil the objectives. The review will also examine project management in terms of efficiency, effectiveness and delivery, the project's deliverables in terms of timeliness, quality and applicability, will review the specific monitoring and reporting tools, and will formulate recommendations towards improvement, as required.
- Final Evaluation. A final independent evaluation will be scheduled during the last quarter of the project. The aim will be to look back on the overall achievement of results, the project's (actual or expected) impact, established project partnerships and links to other relevant initiatives, as well as the (foreseen) sustainability (strategy). The evaluation will also review the overall project management, reports and materials produced in terms of relevance, quality and applicability. The ToR for the final external evaluation will be presented to ADA for approval prior to commencement of the evaluation.

Learning and Knowledge Sharing

- ➤ Results from the project will be disseminated within and beyond the project intervention zone through a number of existing information sharing networks and forums, such as the Adaptation Learning Mechanism (ALM)²².
- > The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to project implementation though lessons learned.
- > The project will identify, analyse, and share lessons learned that might be beneficial in the design and implementation of similar future projects. Identification and analysis of lessons learned is an on-going process, which will be consolidated not less frequently than once every 12 months.

Type of M&E activity	Responsible Parties	Budget EUR Excluding project staff time	Time frame
Inception Workshop & associated arrangements	Project ManagerUNDP COCCO	Indicative cost: 1,500	Within first three months of project start up
Inception Report	 Project Team UNDP CO CCO Consultancy support if needed 	Indicative cost: n/a	Immediately following IW
Measurement of Means of Verification for Project Progress and Performance (measured on an	 Oversight by the Regional Centre and Project Manager Measurements by project team 	To be determined as part of the Annual Work Plan's preparation. Indicative cost: n/a	Annually prior to the annual report and to the definition of annual work plans

²² http://www.undp-alm.org/

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Type of M&E activity	Responsible Parties	Budget EUR	Time frame
		Excluding project staff time	
annual basis)			
Annual reports	Project TeamUNDP-COUNDP-Regional Centre	Indicative cost: n/a	Annually
Project Board Meetings and relevant meeting proceedings (minutes)	Project ManagerUNDP CO	Indicative cost: 1,000 (travel costs for relevant project stakeholders)	Following Project IW and subsequently at least quarterly or as required
Quarterly progress reports	Project team	Indicative cost: n/a	To be determined by Project team and UNDP CO
Mid-term Internal Review	Project teamUNDP- COUNDP-Regional Centre	Indicative cost:1,500 (travel)	At the mid-point of project implementation.
Final External Evaluation	 Project team, UNDP-CO UNDP-Regional Centre External Consultants (i.e. evaluation team) 	Indicative cost: 10,000	At the end of project implementation
Final Report	Project teamUNDP-CO	Indicative cost: n/a	At least one month before the end of the project
Lessons learned	Project teamUNDP-Regional Centre	Indicative cost: n/a	Yearly
Audit	UNDP-COProject teamIndependent Auditors	Indicative cost: 3,600 (average 1,200 per year)	Yearly
Visits to field sites (UNDP staff travel to be charged to IA fees)	 UNDP Country Office UNDP-Regional Centre (as appropriate) Government representatives 	Indicative cost: 2,000 (average two visit per year)	Yearly
TOTAL INDICATIVE CO and UNDP staff and trav	OST (Excluding project team staff time vel expenses)	EUR 19,600	

VII. LEGAL CONTEXT

This document together with the CPAP signed by the Government and UNDP which is incorporated herein by reference, constitute together a Project Document as referred to in the Standard Basic Assistance Agreement (SBAA); as such all provisions of the CPAP apply to this document. All references in the SBAA to "Executing Agency" shall be deemed to refer to "Implementing Partner", as such term is defined and used in the CPAP and this document.

Consistent with the Article III of the Standard Basic Assistance Agreement (SBAA), the responsibility for the safety and security of the Implementing Partner and its personnel and property, and of UNDP's property in the Implementing Partner's custody, rests with the Implementing Partner. To this end, the Implementing Partner shall:

- a) put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;
- b) assume all risks and liabilities related to the implementing partner's security, and the full implementation of the security plan.

UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of the Implementing Partner's obligations under this Project Document.

The Implementing Partner agrees to undertake all reasonable efforts to ensure that none of the UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via http://www.un.org/sc/committees/1267/ag sanctions list.shtm]. This provision must be included in all sub-contracts or sub-agreements entered into under/further to this Project Document".

		sugar beet.		• High resou	Higher adaptation to prices vulnerability for agricultural products and resources (non-renewable sources of energy) in globalized economy.
		Application of 50 t/ha of manure		• The	The technology implies the return of the biophil
		with bedding to agricultural soils	M-L	• Stop	Stops soil degradation Elements contained in dung urine and venetal waste of cattle bedding in
				the b	the biological circuit.
		Conventional land cultivation		• It sto	It stops soil degradation
		system with moldboard plow in 5		Make	Makes the humus and soil carbon balance positive or well-balanced
		fields crop rotation with a field of	M-L	Card	Cardinally improves the soil biota status
		vetch used as green fertilizer (five fields classic crop rotation).		• incre	increases resistance of soil to pollution and of plants to drought.
				• Redu	Reduces erosion by 50-60 percent:
				• Stop	Stoos the erosion on up to 8° gradient slopes:
		cultivation of agricultural crops	M-L	• Minir	Minimization of soils degradation processes and improvement of the
		in alternative strips.		slope	slopes soils moisture regime decrease the risk of desertification of arable
				soils	soils eroded as a result of climate change.
				• Stop:	Stops soil degradation
		Mini-till system and vetch as	M-L	 Agric 	Agricultural products become ecologically cleaner
		successive plant.		Incre	Increases the turnover and quality of agricultural production on arable
				soils	
		No-till system and watch as		• Stop:	Stops soil degradation
L		Sive plant	M-L	• Impro	Improves the ecological status of the land, the agricultural production
				proce	process becomes more environmentally friendly.
		Training on soil protection and		• Train	Training on cover cropping, inter-cropping, mulching, mixed farming
			J-W	(lives	(livestock and crops integrated), minimum tillage. If stakeholders are
				intere	interested in those issues, several information exchanges with other
				exbe	experiences from the region can proceed.
		_		 Bette 	Better management on financial, human resources, input use, land use
		ices in the treatment	M-L	• Mark	Marketing development for crops and inclusion within the value chains
		management		throu	through the establishment of marketing cooperatives and more effective
ات	Change Crops	Technologies for breeding		• Redu	Reduce direct risk by growing cross which may not be affected or loss
	Change	rbrids w			to discourse by growing crops which may not be an ected of less led.
	Livestock	potential to m		• Chan	Chanding crops raises issue of marketing/commercialization of pew
	Enhance	indicators.		crops	crops (risk management).
_	Crops		M-L	• Long	Longer growing season may allow double cropping.
	Diversity			• Long	Longer growing season crops may incur increased hazard threat (e.g., drought, hail flood)
				• Warn	Warmer growing season crops may incur increased hazard threat (e.g.,
				drouc	drought, hail, flood).

VIII. ANNEXES

Annex 1 - Menu of potential adaptation options

The below table provides an initial overview of exemplary potential adaptation measure that can be envisages as part of the NAP process and piloted under Output 3. The selection in the table below is based on the National Technology Needs Assessment (TNA) project (2011 - 2013), the UNDP Moldova Disaster and Climate Risk Reduction Project, and the 2nd and 3rd National Communication.

The TNA entailed a country- specific evaluation of the current technological state in the most vulnerable sectors of the country's economy to identify and analyse priority technology needs for climate change adaptation.

identified, assessed and selected adaptation technologies for climate change, the working group performed a barrier analysis and provided solutions to overcome barriers to technology transfer and diffusion. The final list of technology options in the Agriculture sector consisted of 28 proposed adaptation systems. For the health sector the list consists of 7 adaptation measures. The table below contains these technologies that were assessed as most suitable in view of time, finance and human resources requirements. The adaptation measures for the forest, energy and transport sector were identified in the assessment of vulnerability and adaptability performed by national experts during preparation of Moldova's Third National Communication under the Energy, Tourism, Transport, Human Health, Biodiversity and Ecosystem sectors. The sectors prioritised were Agriculture and Human Health. Based on the technologies in the areas of crop production, agriculture soil management, livestock production, biotechnology, agricultural insurance and irrigation An overview sector profile in relation to climate change vulnerability, environmental impact and adaptation options was prepared for Agriculture, Forestry,

on international best practice, regional experience, analytical work done in the context of Moldova (incl. by the World Bank (agriculture), OECD (water sector), UNDP (various), FAO, UNECE, national Research Institutes, etc.), as well as of the lessons learned in their application so far. The project Inception Phase and Activity 1.1 will entail a comprehensive stocktaking of adaptation measures and technologies in all priority sectors, based

	Area	Potential	Temporal Impact		
Sector	ventio	Options/Measures/ Technologies	S – weeks/months M – months/years L – years/decade		
Agriculture	Anti-Hail protection	Hail Nets	S-M-L	Most viable for high value crops Focus on small crop areas (e.g., kitchen gardens) to aid more vulnerable	gardens) to aid more vulnerable
	Conservation agriculture	Conservation system of soil tillage without herbicides for winter wheat, sunflower and	- I	Higher adaptability to more frequent droughts Higher adaptation to limited natural resources (water, non-renewable sources of energy, soil)	ughts esources (water, non-renewable

				 Warmer growing season may expand cropping options.
		High value genotype		Adaptation of aurophytocenoses to environmental phonons
		ation using in v	- 2	Adaptation of seeds reproduction to the adverse impact of biotic and
		culture.	J-18	abiotic factors.
		04010		Adaptation to vulnerable prices in the seed production process.
		fruit production conditional or		Diversification of crops;
		adoption of routified organitation		Require investments and infrastructure;
		technologies oxpansion of	M-L	Changing crops raises issue of marketing/commercialization of new
				crops (risk management).
				Longer growing season may allow for diversification of crops for livestock
				support and increased grazing and greater potential for animal
		Livestock management		production.
				Warmer growing season may expand livestock options.
Agriculture/ Water	Irrigation	Low-flow, low-pressure and water serving Drip Irrigation	N-S	Reducing of water and energy consumption for irrigation needs in
		reciliologies.		Requires limited infrastructure and investment.
				Useful gardens and high value crops (e.g., vineyards)
				Can be implemented both at large scale and at small scale, incl. at
				household level.
	(B)	Irrigati	• M-L	Proposed as the result of the National Technology Needs Assessment
		form and field collinoiogles at		
		and field sca		
		time electronic instruments		
		monitoring: Real time wireless		
		Soil moisture monitoring system IRISTAR Pro2 Phis		
		Improved low process	1 84 1	
		piessure	- N	Guaranteed yields of agricultural crops in an increasingly dry climate
		water serving sprinkler irrigation		Reducing of water and energy consumption for irrigation needs in
		pad mod jo		
		maintenance of existing dome	• NI-L	Increasing of seasonal and multiannual volume of water storage
		evisiii ig		
		Heat Wave Impact Reduction	· o	Local weather modification through irrigation and misters (but requires water which may not be available
			•	
Water	Water	Run-off Reduction	S-M	
				volume of run-off.

	10000			Can have	Can have positive impact on drought impacts and local water shortages.
	management			May requir	May require road and drainage system engineering and recurrent
				maintenan	maintenance to be sustainable
				Change cc	Change composition of the soil to increase water retention
ř		Increase soil moisture retention	M-L	May requir	May require changes in crop, livestock and land use systems.
				Drainage r	Drainage measures to reduce run-off as cause of erosion.
				Requires I	Requires local (1:500) mapping of possible flood areas, source areas and
			- 2	engineering works.	g works.
		Improve Urainage	S-IVI-L	Requires I	Requires recurrent maintenance to remain effective.
				May be lin	May be linked to community-level waste management, road and drainage
				system me	system maintenance.
				May nave	May Have significal it cost.
				May only I	May only have positive impactibe needed for part of a community (cost
				equity issue).	·(er
				May not be	May not be environmentally sustainable.
		Well Drilling and Water Fumping	M-L	Required	Required sustainable maintenance and operations.
				May requi	May require loans/grants/subsidies for development of supplies and
				distribution	distribution systems.
				Can involv	Can involve labor intensive public works.
				, Reduce w	Reduce water wastage in household use, irrigation and distribution
,		Increase Efficiency of Water	S-M-L	systems.	
		Use		May requi	May require capital intensive engineered infrastructure.
Cross-	Insurance	Planning for Climate Change		Mechanisi	Mechanism for the management of the risks associated with random
Cutting		and Variability. Agricultural		yield shoc	yield shocks once all cost-effective risk mitigation strategies have been
n :		ince.		implemen	implemented; and disaster assistance effort;
-				• Insurance	insurance multi-peril schemes are not sustainable without heavy
				governme	government subsidies.
2				 Can be es 	Can be established through local insurance companies but probably
			M-L	needs subsidies.	osidies.
				 Can be es 	Can be established through cooperatives, but needs attention to
				premiums	premiums/payouts and moral hazard of subsidies.
				 May use \(\) 	May use weather-index payouts.
_				 Premiums 	Premiums may be too expensive without subsidies.
				 Adverse s 	Adverse selection to be avoided (e.g. in flood-risk areas)
				 Costly for 	Costly for damage to housing and other infrastructure.
	Management	Small farm cooperatives for		 Can be cl 	Can be channelled through the National Federation of farmers for
	approaches	s to rural r	N.A. 1	advisory &	advisory support in management and organization of water and/or
		fertilizers,	<u>ا</u>	marketing	marketing cooperatives.
		and extension services.			

			١,		
	Larly Warning	Early Warning Systems, national	S-M-L	•	Short term warning will be improved with increased capacity of weather
		and local levels			system in Moldova following World Bank assistance
				•	May provide sufficient warning to populations living in local flood prone
					areas (e.g., down slope in a community) to take preventive actions.
				•	Needs detailed assessment of risks and triogers of failure from existing
					dams in and outside local government legal boundaries (i.e., from dams
					upstream of community).
				•	Need for local warning system to provide sufficient warning to
			2.		populations living in risk zone to take preventive actions.
				•	Need for heat wave impact management measures.
	Land			•	May require land swaps to optimize land use to reduce risk. Process may
	management				be legally and procedurally complicated.
				•	New crops/land use may affect household/community livelihoods and
		Change In Land Use/Land-use	M-L		change process slow.
		pianimg		•	New crops/land use may result in need for new
					markets/commercialization channels.
-				•	Change may require funding or subsidies to establish new livelihoods.
				•	Requires detailed (1:500) hazard and risk mapping.
				•	Mary social part annex (outpersize local in configuration sinks)
				•	is other locations) or local frim the December 10 callot for less risky laind
					ill other locations) or land buy-buts. Process may be legally and
		Engineered Slope Stabilization	M-L		procedurally complicated.
			I :	•	Likely to be costly relative to local tax resources.
				•	Should include both structural (e.g., walls) and non-structural (vegetation)
					measures.
				•	Can involve labor intensive public works.
				•	Use of trees/bushes to reduce local impact of winds.
		Wind Breaks	M	•	Takes several years to be effective (growth of plants).
			<u> </u>	•	Positive impact may be very local.
				٠	Can involve labor intensive public works.
	Fire	Fire Management Training and	W-W-	•	Training farmers and other in safe use of fire.
	management	Procedures	7-14-1-	•	Can involve labor intensive public works.
		Fire Brigades strengthening	S-M-L	•	May be based on voluntary participation.
Health	Health sector	Organization of social centres	S-M-L	•	Requires funding and procedures to take action to address lack of
	management	for homeless persons.			heating.
		Provisional posts of emergency		•	Requires funding and procedures to take action to address impact of
	or hoddne	care and prompt rehabilitation	2		heat (e.g., misters, humidifiers, air conditioning).
	vuinerable	during critical periods of heat	N-0		
		(Medical dilits).			
		Local Monitoring of Human	S-M-L	•	Identification of more at risk individuals/families and monitoring during

		Impact of Cold Weather		cold weather events
		יוויסמר כן כסום אבמיווים		
				 Hequires funding and procedures to take action to address lack of
				heating.
				1. 1
		Manifestories of House		Identification of more at risk individuals/iaimilles and morniomily during not
		io fillinglinda	S-M-L	weather events.
2		Impact of Heat Wave.		 Requires funding and procedures to take action to address impact of
				heat (e.g., misters, humidifiers, air conditioning).
				 Reducing heating costs in winter and air conditioning costs during
				summer;
				 Contribute to environmental development due to fuel (gas and solid fuel)
				and electricity savings.
		Construction of passive houses		Contribute to sustainable environmental development through energy
		in conditions of the Benublic of	W.	saving
		and delighted the republic of		
		Moldova.		 Increase insulation/heat retention of housing.
				 Improve heating and efficient use of available fuels (e.g., change of stove
				types).
				 Cost likely to be borne by house owners.
				 Subsidies possible but not likely to be sustainable.
				Deducine the column of motor advantable from even industry and
				 Heducing the volume of water extracted from groundwater will contribute
		rural popu		to conservation biodiversity.
7		guara	ī	 Economic benefits will be high, given that rural population will have
		quality. Building of local water	J E	access to safe drinking water.
		supply systems.		 Reduce morbidity by hepatitis A, diarrheal diseases and other chronic
				non-communicable disease.
		ation of postgradue		High economic development
		training of physicians in		 Sanitary-anti-epidemic and primary health care measures will be
		management of disasters	M	undertaken at a high professional level and efficiently
		caused by climate change and		Efficient public health protection measures
		mitigation of consequences for		
		public health.		
Forest	Forest			 Climate change alters development programs of forest ecosystems with
	regeneration	Artificial regeneration of forests		direct consequences on the ability of self-healing.
		based on the local species	M-I	 Rehabilitation and reconstruction forest activities based on fundamental,
		along with high productivity sps	- M-	under massive sps
		(red oak).		 Ensures sustained natural regeneration process increase abiotic and
				anthropogenic.
		Application of mixed silviculture		 The choice and combination of species to carry out strictly in relation to
		sps in artificial regeneration of	M-L	stationary conditions, taking into account trends in climate andity
		Use of in blocks method for	M-L	 Native sps to be favoured, but to practice other sps, more productive

	and construction works	Improve flood protection	M-L		Maps of flood prone areas Clean out debris from clogged ditches and culverts Addition of slope retention structure and retaining facilities for landslides.
		Pavement grooving and sloping	S-M		Pave ditches to reduce erosion.
		Development of new, heat-resistant paving materials	S-M	•	Improved drainage
		Designing for higher maximum temperatures in replacement or new construction	M-L	•	Increased cutting of verges and other consideration biodiversity impacts.
Energy	Renewable	Promoting the use of alternative and renewable fuels, and		•	Long-term benefits of renewable energy generation in reducing GHG emissions that also provide environmental co-benefits
	S	. <u>@</u>	M-L		
	Energy conservation	oil dependence, vehicle pollution and energy use			
				•	Measures aimed at maintaining optimal temperature in homes and public
		Energy conservation measures	M-L		places; Reducing the adverse effects of extreme temperatures (heat waves and low temperature) on health and quality of life of population.
					Cuts energy costs
					Reduces energy consumption
		Decrease in energy used in	V.		Improves interior comfort
		ater heating)	-	Reduces radiant heat transfer
					Consumers of energy should be provided with a good education of the most efficient use of energy
-		Enhanced resource			Increase efficiency and reliability of services
		management	J-W-	1	Increase investments opportunities
	. 9				Reducing heating costs in winter and air conditioning costs during
					summer,
					Contribute to environmental development due to fuel (gas and solid fuel)
					and electricity savings. Contribute to customable equipopmental development through energy
		Construction of passive nouses	V.		Saving
		Moldova	, 5		Increase insulation/heat retention of housing.
	2				Improve heating and efficient use of available fuels (e.g., change of stove
					types).
					Cost likely to be borne by nouse owners. Subsidies possible but not likely to be sustainable.

Annex 2 - Related projects and initiatives

outputs and lessons learned from the past and on-going projects and coordinate closely with on-going projects to create synergies where possible. Main mechanisms for exchange will include regulate meetings for information exchange, participation in project-related events and consultation/decision making The table below gives an overview of past and on-going projects and programmes which are relevant for this project. The project will build on the analysis, bodies and processes.

Synergies	Information/knowledge sharing on climate change impacts on biodiversity/eco- systems/eco-system based adaptation	In addition to community benefits, the project's forestation activities would support, through restored productivity and conservation of soil, the global objectives of climate change mitigation	Models for eco-system based adaptation (sustainable pasture and forest management)	Models for eco-system based adaptation (sustainable land/soil management)
Project Description / Issues addressed	The project aims to build the capacity of protected area institutions in Moldova to more effectively establish and administer a representative system of protected areas in Moldova.	The objective is to restore degraded land through forestation to increase economic and environmental benefit to rural communities.	The project has positive influence on community forests and pastures, contributing substantially to the improvement of their condition (management), achieving considerable ecological and economic benefits for local population. An area of 1453 ha, including 1162 ha will be covered with forest management planning and on 291 ha reconstruction (or assisted natural regeneration) will be carried out in community forests destroyed previously by illegal logging.	Moldova Soil Conservation project is reforesting 19,768 ha of bad lands in the process of heavy erosion and degraded unproductive pasturelands, by means of afforestation with tree and shrub species adapted to these adverse site conditions, providing urgently needed fuel wood and timber to rural people.
Budget	995,000 USD	10,000,000 USD	975,900 USD	2,478,000 USD
Duration	2009-2013	2006-2035	2005-2007	2002-2022
Donor (Implementer)	GEF/UNDP (UNDP)	Borrower, Carbon Fund, PHRD Grant (WB/State Forest Agency Moldsilva)	Japan Policy for Human Resources Development (PHRD) Fund (State Forest Agency Moldsilva)	WB- Prototype Carbon Fund (Moldsilva)
	Improving coverage and management effectiveness of the protected area system in Moldova	a Community y Development	Japanese Grant TF093088	Moldova: Soil Conservation
Project	Improving manageme of the system in I	Moldova Forestry Project	Japanes	Moldove

Models for alternative income generation with positive impacts on the environment (incl. climate change adaptation)	sus nt ptat	Knowledge sharing on analysis related to climate change impacts on biodiversity and ecosystems and related adaptation measures	Project is working on mainstreaming agro- environmental and sustainable land management practices. Exchange on climate change adaptation measures in agriculture.	Models for alternative income generation with positive impacts on the environment (incl. climate change
The main objective of the project is to increase the investment attractiveness and visibility of tourism values in National Park Orhei. Specific objectives: creation, improvement and diversification of tourism infrastructure and services in National Park Orhei, building, administrative capacity of the park, training and human resources for intercommunity cooperation activities by promoting diversification of the regional economy and tourism. Developing touristic infrastructure (visitor centers, camping's, craft markets) at a distance of up to one hour from the capital Chisinau.	The ENPI FLEG Program supports governments, Mo civil society, and the private sector in participating ma countries in the development of sound and sustainable forest management practices, including reducing the incidence of illegal forestry activities. Participating countries include Armenia, Azerbaijan, Belarus, Georgia, Moldova, Russia and Ukraine.	This project is part of the second generation of Kn Biodiversity Enabling Activities (BD EA) under the angle GEF. Republic of Moldova has been Party to the Convention on Biological Diversity (CBD) since October 1995. The project addresses the country's anneed to continue to fulfil its obligations under the CBD, with particular focus on the Convention's Article 6 and the CBD COP Decision X/2.	The Project Development Objective is to enhance the competitiveness of the country's agro-food me sector by supporting the modernization of the food en safety management system; facilitating market su access for farmers;	The Project aims to contribute to a more secure, Mc competitive and sustainable energy production in the ge Republic of Moldova through targeted support to im renewable energy in form of biomass from (in agricultural wastes. The project will increase the use
12,349,572 MDL (1,010,603 USD)	EUR EUR	220,000 USD	4,435,500 USD	14,560,000 EUR
2013-2014	2009-2012	2012-2013	2012-2017	2011–2014
National Fund for Regional Development (Agency for Regional Development)	European Union (World Bank, IUCN, WWF)	GEF/ National Environment fund (UNDP through Biodiversity Office)	GEF (WB)	European Commission and UNDP (UNDP Moldova)
Sustainable tourism development in the Orhei National Park area	The ENPI FLEG Program "Improving Forest Law Enforcement and Governance in the European Neighbourhood Policy East Countries and Russia"	National Biodiversity Planning to Support the Implementation of the CBD 2011-2020 Strategic Plan in Moldova	Agriculture Competitiveness Project	Moldova Energy and Biomass Project

adaptation)	Within the project awareness of the public and state officials will be raised about the benefits of organic agriculture.	Models for climate change adaptation in agriculture	Models for climate change adaptation measures and technologies in agriculture	Local level climate risk management measures were piloted at the local level. The tools for local level risk
of renewable energy sources, specifically for heating a public buildings and individual households in rural areas. It lays the basis for the establishment of functional markets for biomass technologies which will ensure sustainability of the project intervention beyond its lifetime.	The project is focused on the support of organic vagriculture in Moldova through building the capacity of farmers, their associations and service providers. In addition access of farmers to investments will be the increased and demand for organic products in a Moldova stimulated.	The project envisages establishment of six production-marketing cooperative groups with the aminimum total number of 60 farmers based on the above-mentioned groups of vegetable and fruit small- and medium-scale growers. Vegetable and fruit growers will be trained in growing technologies, strategic plans of commercial growing will be set up for them, they will be supported with deliveries of horticulture mini-machinery, green houses, irrigation equipment and other agricultural inputs; further the project will work out market analyses, organize training in marketing and farm management provide marketing strategies and business plans for each of groups.	It aims at increasing incomes in the rural areas by encouraging high value agriculture and catalyzing a investments into high value production. It is also estimated to make benefits to about 29 000 farmers or over 112 thousand individuals (farmers, owners of farmlands, agricultural enterprises and their shareholders, employees of agricultural enterprises operating in the areas covered by the rehabilitated centralized irrigation systems, the producers who grow or intend to grow high value products).	The project aims to contribute to reduction of L disaster and climate risks approaching national movulnerability to climate variability and change pathrough creation of an informed National Disaster to
	7,500,000 CZK	1,800,000 CZK	262,000,00 0 USD	1,100,000 USD
	2011- 2013	2011- 2013	2010-2015	2010-2013
	International Development Cooperation of the Czech Republic (People in Need)	International Development Cooperation of the Czech Republic (Czech University of Life Sciences Prague)	Millennium Challenge Corporation (Millennium Challenge Account Moldova)	Austrian Gov, UNDP BCPR (UNDP)
	Development of ecological agriculture in Moldova	Increasing Competitive Strength and Efficiency of Moldovan Small and Medium-Scale Farmers through their Orientation to High Value Crops Growing at Selected Target Groups in Districts of Cahul, Anenii noi, Ungheni	Transition to High Value Agriculture project (Millennium Challenge Compact programme in Moldova)	Moldova Disaster and Climate Risk Reduction Project

h local assessment and ritizing management developed under this project as well as the lessons learned from the ational project. It Local the lessons learned from the project. It Local the the lessons learned from the lessons learned from the project.	strengthen The objective the project is to strengthen the capacity of mprove the government institutions to mergencies climate related) and respond to disasters by improving the capacities of the institutions involved in different project to natural components. Project activities related to the State Hydrometeorological Service will be closely coordinated with this project to raise synergies and avoid overlaps.	laptive Models for climate change e land adaptation in agriculture grant	by: (i) The project's three-year biogas development objective is to promote the transfer of a new sound environmentally sustainable reduce renewable energy technology through piloting the use of ddress animal manure for biogasmative based heating and electricity sissions
Observatory, capacity building activities at both local and central authorities and proper prioritizing process while developing the National DRM Strategy. Project works on the development of the National DRR framework (elaboration of the National DRR framework (elaboration of the National Strategy on Disaster Risk Reduction), raise the capacity of main responsible body (Civil Protection and Emergency Situation Service) and support Local Public Authorities into integration of disaster and climate risk reduction measures into the development plans;	The project development objective is to strengthen the State Hydrometeorological Service's ability to forecast severe weather, as well as to improve the capacity of the Government to manage emergencies and coordinate disaster response among local units by establishing the Emergency Command Centre. It will also initiate activities for adaptation in agriculture all these contributing to improved Moldova's capacity to prepare for and respond to natural disasters.	The objective of the project is to enhance adaptive capacity of rural farmers through sustainable land approaches (presently project preparation grant approved and the project is under preparation)	The development objective will be achieved by: (i) removing barriers to enable the use of biogas renewable energy technology in the country; (ii) building farmer capacity in environmentally sound manure management systems to reduce environmental pollution; and (iii) reducing greenhouse gas (GHG) emissions to help address climate change effects by using a viable alternative to fossil fuels. The Global Environment Objective is to contribute to the reduction of GHG emissions
	10 min USD (credit)	4,370,000 USD (PPG Inclusive)	2,513,000 USD
	2010-2014	Project document under preparation	2012-2015
	IDA (WB)	GEF (IFAD)	GEF (WB)
	Moldova Disaster and Climate Risk Management Project	Climate Resilience through Conservation Agriculture	Biogas Generation from Animal Manure Pilot Project

EU, Australian
ncy , G nany (
BCPR,OCHA 2012-2013 (UNDP)
EC December 2010 - June 2014
UNECE 2011-2014

mprovement of fodder FAO Decemt 2012 2012 storage to reduce the impact of drought on livestock feed Moldovan Seed Sector FAO Septem Development in the scope of Climate Change and Disaster Risk Mitigation (TCP/MOL/3302)
FAO GEF (UNDP/UNOPS)

Local authorities should have the understanding of DRR activities to put them into the Local Development Plans and to have the possibility to apply for funding to implement measures. Children are one of the most vulnerable groups and should be one of the focuses for the DRR measures.	The 2 ^m National Communication constitutes a major analytical basis for this project and also significantly informed the process of development of the National Climate Change Adaptation Strategy (incl. vulnerability analysis for key for current and future climate conditions for 30-50 years, identified adaptation measures and concepts until 2100). These results will serve as a basis for the identification of the most vulnerable sectors in the proposed Project. Further, the proposed Project Further, the project will make use of the tested approaches on vulnerability assessment and identification of adaptation measures.
This project collaborates with relevant national authorities, UN partner agencies, non-governmental partners and local authorities to make children's education, health, protection services and facilities significantly more resilient by October 2013. The project will go on two levels: national (development on awareness and knowledge campaigns) and local. DRR should be on the Local Agenda - In order to introduce the DRR activities communities should emphasise them as a priority areas.	The project objective was to enable the Republic of Moldova to prepare and submit its Second National Communication to the CoP of the UNFCCC in accordance to its commitments as a non-Annex 1 Party of the Convention. The main aim of the project is to develop and enhance national capacities and facilitate the process of mainstreaming climate change issues into national environmental planning and policy, thus enabling the country to deal with climate change and consider it not only as environmental issue but as an issue of sustainable development. The project contributed to the global effort to better understand the sources and sinks of greenhouse gases, potential impacts of climate change, and provided effective measures to achieve the ultimate objective of the UNFCCC. The project helped to identify projects related to climate change, eligible for further funding by donors community or co-funding by GEF, other multilateral or bilateral organizations and eligible for funding, inclusive under Clean Development Mechanism (CDM) of the Kyoto Protocol. In addition, the project contributed to enhance general awareness and knowledge on climate change related issues and to strengthen the dialogue, information exchange and cooperation among all the relevant stakeholders including governmental, non-governmental, academic, and private sectors.
130,000 USD (approx.)	750,000 USD
January – October 2013	2005-2009
UNICEF (RED CROSS)	GEF (UNEP, CCO)
Emergency Preparedness, Response and Disaster Risk Reduction (DRR) in Moldova	"Enabling Republic of Moldova to Prepare its Second National Communication in Response to its Commitments to the United Nations Framework Convention on Climate Change"

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Within the 3rd NC national	climate scenarios were	updated according to new	results presented by IPCCC.	Evaluations related to the	impact of climate change on	the agricultural sector were	extended. This knowledge will		specifically for the agriculture	and human health sectors.												
The project objective is to enable the Republic of Within the 3 rd NC national	Moldova to prepare and submit its Third National climate scenarios	Communication to the COP of the UNFCCC in updated according to new	accordance to its commitments as a non-Annex 1 results presented by IPCCC.	Party of the Convention.	The main aim of the project is to develop and	enhance national capacities and facilitate the	process of mainstreaming climate change, and	consider it not only as environmental issue but as a	sustainable development.	The project will contribute to the global effort to	better understand the sources and sinks of	greenhouse gases, potential impacts of climate	change, and provide effective measures to achieve	the ultimate objective of the UNFCCC.	The project will help to identify project proposals	related to climate change, eligible for further funding	by donors community or co-funding by GEF, other	multilateral or bilateral organizations and eligible for	funding, inclusive under Clean Development	Mechanism (CDM) of the Kyoto Protocol as well as	under any other global economic mechanisms	focused on climate change mitigation.
750,000	OSD																					
2010-2013																						
GEF (UNEP, CCO) 2010-2013 750,000														×								
"Enabling Activities for the	Preparation of the Third	National Communication	under the United Nations	Framework Convention on	Climate Change"																	