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Report No: PAD1183

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT PAPER

ON A

PROPOSED ADDITIONAL CREDIT

IN THE AMOUNT OF SDR1.50 MILLION
(US$2.0 MILLION EQUIVALENT)

TO THE

REPUBLIC OF MOLDOVA

FOR A

DISASTER AND CLIMATE RISK MANAGEMENT PROJECT ADDITIONAL FINANCING

April 28, 2015

Social, Urban, Rural and Resilience Global Practice
Belarus, Moldova and Ukraine Country Unit
Europe and Central Asia Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective March 31, 2015)

Currency Unit	=	Moldovan Leu
MDL 1	=	US$ 0.0579
US$ 1	=	SDR 0.72490558

FISCAL YEAR

January 1 – December 31

ABBREVIATIONS AND ACRONYMS

AWS	Automatic Weather Stations
CPESS	Civil Protection and Emergency Situation Service
DCRMP	Disaster and Climate Risk Management Project
ECC	Emergency Command Center
NWP	Numerical Weather Prediction
PDO	Project Development Objective
SHS	State Hydro-meteorological Service
UNDP	United Nations Development Program
WMO	World Meteorological Organization

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MOLDOVA
DISASTER AND CLIMATE RISK MANAGEMENT PROJECT
ADDITIONAL FINANCING

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ADDITIONAL FINANCING DATA SHEET

Moldova

Disaster and Climate Risk Management Project Additional Financing (P148125)

EUROPE AND CENTRAL ASIA

GSURR

Basic Information – Parent			
Parent Project ID:	P115634	Original EA Category:	B - Partial Assessment
Current Closing Date:	30-Sep-2015		

Basic Information – Additional Financing (AF)			
Project ID:	P148125	Additional Financing Type (from AUS):	Scale Up
Regional Vice President:	Laura Tuck	Proposed EA Category:	B - Partial Assessment
Country Director:	Qimiao Fan	Expected Effectiveness Date:	01-July-2015
Senior Global Practice Director:	Ede Jorge Ijjasz-Vasquez	Expected Closing Date:	30-Jun-2016
Practice Manager/Manager:	Bernice K. Van Bronkhorst	Report No:	PAD1183
Team Leader:	Anatol Gobjila		

Borrower				
Organization Name	Contact	Title	Telephone	Email
Government Office			373 22 250 227	"Tamara Gheorghita" <tamara.gheorghita@gov.md>

Project Financing Data–Parent (Disaster and Climate Risk Management Project-P115634)

Key Dates

Project	Ln/Cr/TF	Status	Approval Date	Signing Date	Effectiveness Date	Original Closing Date	Revised Closing Date
P115634	IDA-47940	Effective	05-Aug-2010	12-Aug-2010	10-Nov-2010	30-Sep-2014	30-Sep-2015

Disbursements

Project	Ln/Cr/TF	Status	Currency	Original	Revised	Cancelled	Disbursed	Undisbursed	% Disbursed
P115634	IDA-47940	Effective	XDR	6.80	6.80	0.00	6.75	0.75	99.20

Project Financing Data –Additional Financing Disaster and Climate Risk Management Project Additional Financing (P148125)

[ ]	Loan	[ ]	Grant	[ ]	IDA Grant
[X]	Credit	[ ]	Guarantee	[ ]	Other

Total Project Cost:	2.00	Total Bank Financing:	2.00
Financing Gap:	0.00		

Financing Source – Additional Financing (AF)	Amount
BORROWER/RECIPIENT	0.00
International Development Association (IDA)	2.00
Total	2.00

Policy Waivers

Does the project depart from the CAS in content or in other significant respects?	No
Explanation	
Does the project require any policy waiver(s)?	No
Explanation	

Team Composition

Bank Staff

Name	Role	Title	Specialization	Unit
Anatol Gobjila	Team Leader (ADM Responsible)	Senior Operations Officer		GFADR
Barbara Ziolkowska	Procurement Specialist	Procurement Analyst		GGODR
Oxana Druta	Financial Management Specialist	Financial Management Analyst		GGODR
Arcadii Capcelea	Environmental Specialist	Senior Environmental Specialist		GENDR
Klavdiya Maksymenko	Safeguards Specialist	Social Development Specialist		GSURR
Elena Corman	Team Member	Procurement Analyst		GGODR
Luis M. Schwarz	Team Member	Senior Finance		WFALA

		Officer		
Elena Segura	Team Member	Senior Counsel		LEGLE
Delphine Alberta Hamilton	Team Member	Senior Program Assistant		GSURR
Daniel Werner Kull	Team Member	Senior Disaster Risk Management Specialist		ECRGV
Jose C. Joaquin Toro Landivar	Team Member			GSURR
Tamara Ursu	Team Member	Program Assistant		ECCMD

Name	Title	Location

Locations

Country	First Administrative Division	Location	Planned	Actual	Comments
Moldova	Raionul Soroca	Soroca			
Moldova	Raionul Leova	Leova			
Moldova	Unitate Teritoriala Autonoma Gagauzia	Ceadir-Lunga			
Moldova	Municipul Balti	Balti			
Moldova	Municipiul Chisinau	Chisinau International Airport			

Institutional Data

Parent (Disaster and Climate Risk Management Project-P115634)

Practice Area (Lead)

Social, Urban, Rural and Resilience Global Practice

Contributing Practice Areas

Cross Cutting Areas

[ ] Climate Change

[ ] Fragile, Conflict & Violence

[ ] Gender

[ ] Jobs

[ ] Public Private Partnership

Sectors / Climate Change

Sector (Maximum 5 and total % must equal 100)

Major Sector	Sector	%	Adaptation Co-benefits %	Mitigation Co-benefits %
Public Administration, Law, and Justice	Public administration-Water, sanitation and flood protection	100		
Total		100		

Themes

Theme (Maximum 5 and total % must equal 100)

Major theme	Theme	%
Social protection and risk management	Natural disaster management	100
Total		100

Additional Financing Disaster and Climate Risk Management Project Additional Financing (P148125)

Practice Area (Lead)

Social, Urban, Rural and Resilience Global Practice

Contributing Practice Areas

Cross Cutting Areas

[X] Climate Change

[ ] Fragile, Conflict & Violence

[ ] Gender

[ ] Jobs

[ ] Public Private Partnership

Sectors / Climate Change

Sector (Maximum 5 and total % must equal 100)

Major Sector	Sector	%	Adaptation Co-benefits %	Mitigation Co-benefits %
Public Administration, Law, and Justice	Public administration-Water, sanitation and	100	15	85

	flood protection			
Total		100		

Themes

Theme (Maximum 5 and total % must equal 100)

Major theme	Theme	%
Social protection and risk management	Natural disaster management	85
Environment and natural resources management	Climate change	15
Total		100

I. Introduction

1. This Project Paper seeks the approval of the Executive Directors to provide an additional credit in an amount of US$2.0 million equivalent to the Republic of Moldova Disaster and Climate Risk Management Project, P115634, Credit No. 47940-MD.

2. The proposed additional credit would finance the costs associated with a cost overrun and a resulting financing gap in the parent project. The major changes proposed are: (i) an increase in the cost of components to reflect the allocation of physical and price contingencies from the parent project, and the allocation of proceeds from the proposed additional financing; and (ii) minor changes to the results framework aimed at streamlining the indicators and increasing their meaningfulness. The proposed additional financing would contribute to the full achievement of the parent project's expected outcomes.

3. While no formal co-financing is expected for the implementation of the additional financing, the project will have partnership arrangements with the World Meteorological Organization (WMO), United Nations Development Program (UNDP) and the Austrian Meteorological Service, which are expected to play an active role in supporting a range of complementary institutional strengthening and capacity building activities for Moldova's State Hydro-meteorological Service (SHS).

II. Background and Rationale for Additional Financing in the amount of US$2.0 million

4. The parent Disaster and Climate Risk Management Project is financed through an IDA credit in an amount of SDR6.8 million (US$10.0 million equivalent). The original credit was approved on August 5, 2010, and became effective on November 10, 2010. The parent project's development objective (PDO) has remained unchanged – to strengthen the State Hydro-meteorological Service's ability to forecast severe weather and improve Moldova's capacity to prepare for and respond to natural disasters. To this end, the project's scope covered a series of activities aimed at technically enhancing public systems and transferring cutting-edge knowledge across three areas - hydro-meteorological services, civil protection and climate smart agriculture. The design of the parent project is structured around three main components:

(i) *Component A: Strengthen the SHS's Weather Forecasting Capacity* – aiming to strengthen the SHS's capacity for forecasting severe weather and ensuring that users of meteorological information (public and private) are presented with more localized, specific and timely forecasts and warnings.

(ii) *Component B:* Improve Disaster Preparedness and Emergency response - aiming to strengthen the Republic of Moldova's capacity to manage emergencies and coordinate effectively disaster response actions among various levels of government agencies by establishing and operating an Emergency Command Center (ECC).

(iii) *Component C: Initiate Activities for Adaptation to Climate Risks in Agriculture* – aiming to enhance the practical application of agro-meteorological information in the agriculture sector in order to increase its resilience towards adverse weather effects.

5. There have not been any changes to the project's original development objective and design. The scope of the project has also not been subject to substantive changes, with only minor adjustments to Component A, where in order to increase focus on enhancements of severe weather forecasting capacity, some activities on hydrology were cancelled after the mid-term review. The funds originally allocated for those activities were reallocated towards financing the network of weather stations

6. Project performance is currently rated "satisfactory" for Implementation Progress (IP), "moderately satisfactory" for progress towards achievement of the PDO, and "satisfactory" for procurement and financial management. The project has never been rated unsatisfactory for either IP or PDO. Currently, disbursements are at 99.20% percent of the original credit amount. The project has also achieved two out of three outcome indicators and four out of five intermediate results indicators. The remaining indicators are in partially completed status, and are expected to be fully met under the additional financing.

7. Specific highlights of the parent project implementation:

a) *Under Component A,* a project-supported Doppler radar system, pivotal to the SHS's efforts to enhance severe weather forecasting, is now in operation. The radar system has been complemented with improvements in raw data collection – four stationary meteorological stations were built or refurbished under the project and the establishment of a network of Automatic Weather Stations (AWS) is already under way.

b) *Under Component B,* the project supported the establishment of an ECC for disaster response. The ECC is a state-of-the-art facility with the highest standards of safety, redundancy and accessibility for such facilities. At present, the ECC is in the final stages of being equipped with essential IT and mobile communication systems (both hardware and software) for integrating all disaster and preparedness response services in the country, and for providing a unified coordination and command center.

c) *Under Component C,* a just-in-time mobile alert system is now operational and provides weather alerts and market information to farmers. In addition, the component has financed 53 sub-projects for piloting integrated agricultural and agronomic technologies for adaptation to climate risks, and disseminated the experience and lessons-learned to around 2840 farmers (of which 27% women) in more than 70 dedicated field-day events.

8. The proposed additional financing is based on a request from the Republic of Moldova dated July 1, 2013 and subsequently confirmed on March 14, 2014. The rationale for the requests stemmed from cost overruns emerging across all components.

9. The largest cost overrun is in Component B, where the costs of construction works and equipment for the ECC were significantly underestimated under the parent project. At appraisal, Component B was estimated at US$2.6 million with a caveat that actual costs would be determined through the preparation of two project financed feasibility studies. The decision to prepare the feasibility studies as part of project implementation was driven by the urgency of the

project in the aftermath of the repeated natural disasters especially in 2010. The feasibility studies, and the subsequent bidding process, revealed that the initial estimates for construction works and equipment were significantly below the estimate primarily due to the complexity of the construction of the ECC[1]. This was exacerbated by construction price inflation (estimates were made in 2009-10, with construction occurring in 2012-13). The cost overrun was also significantly increased by the fact that an off-the-shelf software product could not be purchased and/or adjusted to the needs and specificity of the proposed ECC concept, thus requiring a custom-designed system.

10. The cost overrun under Component A also stems primarily from higher than anticipated construction costs (engineering complexity and construction price inflation) for the four stationary weather stations which were built for the SHS in the towns of Balti, Ceadir-Lunga, Soroca and Leova. The cost overrun for Component C was minor and resulted from higher consulting costs for the implementation of a mobile just-in-time weather alert system and the implementation of agro-technological experimental pilots for adaptation to climate risks[2]. Finally, additional budget for Component D: Project Management will be necessary, for the implementation of the AF and in order to ensure smooth project coordination and effective compliance with fiduciary obligations.

11. The task team discussed alternatives to the proposed additional financing with the Government of Moldova, including allocation of counterpart funding and processing of a larger follow-up operation. The conclusion was that at present an additional financing is the most appropriate mechanism to address the financing gap and ensure that the project's development objective is achieved in full, because: (i) the Government is fiscally constrained, and (ii) implementation momentum would be lost by placing parts of these activities in a new operation. Without the availability of additional resources, activities aimed at strengthening the SHS's ability to forecast severe weather may not be implemented in full, as it is estimated that currently available resources will not be sufficient to cover the costs related to the procurement of automatic weather stations, visualization software and capacity building for numerical weather prediction (NWP). Similarly, activities aimed at improving capacity for readiness and response to natural disasters, i.e. complete the equipping of the ECC with essential IT and communication systems and carry out simulation exercises, may not be fully realized without the additional financing. To this end, the additional financing will not only eliminate the need for the Government of Moldova to seek non-Bank resources to cover the financing gap, but will indeed maintain the high likelihood of achieving the parent project's development objective. Also, the Government of Moldova values highly the Bank's expertise and technical rigor in implementing the project and would like to see its successful completion.

12. The proposed AF does not foresee any substantively modified activities that would depart from the current FY14-17 Country Partnership Strategy.

[1] The component supported the construction of an additional floor to an existing building, thus requiring much more complex and costly architectural, structural and seismic solutions

[2] The cost overrun for Component C was covered from unallocated contingencies and will not require resources from the AF.

Country and sector context

13. The country and sector context for disaster and climate risk vulnerability, preparedness and response has not changed substantially since the preparation of the parent project. The variability of the country's climate is increasing, leading to more extreme climatic events such as early frost onset, flash floods, hailstorms, droughts, and other extreme weather. The latest and most dramatic event took place in 2012 when the country suffered a devastating drought which led to losses in the agriculture sector estimated at US$100 million. Reducing Moldova's vulnerability to extreme weather events and natural hazards continues to be a priority for Moldova's economic development.

14. The SHS under the Ministry of Environment continues to play a key role in disaster preparedness by providing Government agencies and the public with daily and five-day forecasts to prepare for severe weather emergencies. As the SHS data network was inadequate to provide severe weather forecasts with sufficient lead time to general public and the Department of Exceptional Situations (DES), the parent project focused on increasing capacity for now-casting by providing a Doppler Radar system, a network of AWSs, and modelling capability. The additional financing will continue the SHS strengthening efforts for improvement of the quality of local forecasts, but also for SHS's international commitments for supplying raw hydro-meteorological data to strengthen regional and global modeling and hydro-meteorological forecasts to promote human safety and economic development.

15. Institutional arrangements for disaster risk management remain unchanged from the time of the preparation of the main project. The Republican Commission for Emergency Situations is the main entity responsible for managing emergencies. The Head of the Commission is the Prime Minister; the deputy head is the Director of the DES, which is responsible for disaster prevention, response, relief and recovery. The Commission meets semi-annually and includes representatives from all line ministries and executive branches. District and local emergency commissions have a similar structure and include heads of local governments and relevant public services. With the commissioning of the ECC, the Republican Commission for Emergency Situations will now hold its meetings on the ECC premises, where it has a dedicated room which is fully equipped for unhindered communication with district and local authorities.

Project design

16. The proposed additional financing is aimed at covering a financing gap resulting from cost overruns across all components, and will therefore not affect the project's original design. The project's component structure will remain the same and components will not suffer any substantive changes. However, during the remaining implementation period, an even greater focus will be placed under Component A on capacity building for the use of numerical weather prediction modeling. This would significantly enhance the SHS's ability to provide now-casting services for adverse weather events (0-6 hour forecasting) and would assist in extracting the full potential value of existing and planned observation instruments provided for in the parent project. While an in-house operational NWP can be the ultimate goal of SHS modernization, at this stage the project's efforts will focus on capacity needed to make full use of global and regional products (e.g. European Center for Medium-range Weather Forecasting) which will be

enabled through the planned investment in a forecaster workstation. Intense training for the SHS forecasters to fully use available global and regional NWP models will be provided together with the WMO, UNDP and the Austrian Meteorological Service.

Risk factors

17. Implementation risks are limited, as 90 percent of the activities to be supported by the additional financing have either been contracted or are at an advanced stage of procurement. The biggest risk factors relate to the sustainability of the investments supported by the project for the strengthening of the SHS. The SHS is a public institution with a limited budget and reduced opportunities for retaining key staff, such as forecasters. In 2014, the Government of Moldova has initiated a series of amendments to the SHS's statutes which would allow for essential SHS staff to become public servants. This should lead to higher incomes and increased job security for staff, and subsequently higher retention rates. This institutional reform has advanced and is expected to be completed in 2015.

18. Communities and individuals who believe that they are adversely affected by a World Bank supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the WB's corporate GRS, please visithttp://www.worldbank.org/GRS. For information on how to submit complaints to the World Bank Inspection Panel, please visitwww.inspectionpanel.org."

III. Proposed Changes

Summary of Proposed Changes The AF is going to cover a cost overrun, and as such there are no changes related to the description and substance of the project's components but only to the component costs. Minor changes to the results framework aimed at streamlining the indicators and increasing their meaningfulness are proposed.	
Change in Implementing Agency	Yes [ ] No [X]
Change in Project's Development Objectives	Yes [ ] No [X]
Change in Results Framework	Yes [X] No [ ]
Change in Safeguard Policies Triggered	Yes [ ] No [X]
Change of EA category	Yes [ ] No [X]
Other Changes to Safeguards	Yes [ ] No [X]

Change in Legal Covenants	Yes [ ] No [X]
Change in Loan Closing Date(s)	Yes [ ] No [X]
Cancellations Proposed	Yes [ ] No [X]
Change in Disbursement Arrangements	Yes [ ] No [X]
Reallocation between Disbursement Categories	Yes [ ] No [X]
Change in Disbursement Estimates	Yes [X] No [ ]
Change to Components and Cost	Yes [X] No [ ]
Change in Institutional Arrangements	Yes [ ] No [X]
Change in Financial Management	Yes [ ] No [X]
Change in Procurement	Yes [ ] No [X]
Change in Implementation Schedule	Yes [X] No [ ]
Other Change(s)	Yes [ ] No [X]

Development Objective/Results

Project's Development Objectives

Original PDO

The Project development objective (PDO) is to strengthen the State Hydro-meteorological Service's ability to forecast severe weather and improve Moldova's capacity to prepare for and respond to natural disasters.

Change in Results Framework

Explanation:

Minor adjustments to the Results Framework are aimed to correct intrinsic scientific weaknesses in the current definition of some indicators. In particular, indicators will be modified to allow for a more logical and customary/scientific representation of the project's results (see Annex 2). The changes in the Results Framework would not materially affect the correct measurement of the achievement of the PDO. A new indicator is introduced to capture the project's citizen engagement performance.

Compliance

Covenants - Additional Financing (Disaster and Climate Risk Management Project Additional Financing - P148125)

Source of Funds	Finance Agreement Reference	Description of Covenants	Date Due	Recurrent	Frequency	Action
				☐		

Conditions

Source Of Fund	Name	Type

Description of Condition

Risk

Risk Category	Rating (H, S, M, L)
1. Political and Governance	Moderate
2. Macroeconomic	Moderate
3. Sector Strategies and Policies	Moderate
4. Technical Design of Project or Program	Moderate
5. Institutional Capacity for Implementation and Sustainability	Substantial
6. Fiduciary	Low
7. Environment and Social	Low
8. Stakeholders	Low
9. Other	
OVERALL	Moderate

Finance

Loan Closing Date - Additional Financing (Disaster and Climate Risk Management Project Additional Financing - P148125)

Source of Funds	Proposed Additional Financing Loan Closing Date
International Development Association (IDA)	30-Jun-2016

Change in Disbursement Estimates (including all sources of Financing)

Explanation:

The change in disbursement estimates derives from the addition of US$2.0 million dollars and the proposed closing date for the AF.

Expected Disbursements (in USD Million)(including all Sources of Financing)

Fiscal Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Annual	1.90	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cumulative	1.90	3.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Allocations - Additional Financing (Disaster and Climate Risk Management Project Additional Financing - P148125)

Source of Fund	Currency	Category of Expenditure	Allocation	Disbursement %(Type Total)
			Proposed	Proposed
IDA	XDR	Goods, Works, Consulting Services, Training, Operating Costs, Technical Services	1.5	100.00

		Total:	1.5	

Components

Change to Components and Cost

Explanation:

For presentation purposes, the revised component costs include a distributive allocation of US$0.91 million of unallocated physical and price contingencies from the parent project, as well as the distribution of the proposed additional US$2.0 million (details in Annex 3).

Current Component Name	Proposed Component Name	Current Cost (US$M)	Proposed Cost (US$M)	Action
Strengthen the SHS Severe Weather Forecasting Capacity	Strengthen the SHS Severe Weather Forecasting Capacity	4.36	4.90	Revised
Improve Disaster Preparedness and Emergency Response	Improve Disaster Preparedness and Emergency Response	2.45	4.44	Revised
Initiate Activities for Adaptation to Climate Risks in Agriculture	Initiate Activities for Adaptation to Climate Risks in Agriculture	1.83	1.96	Revised
Project Management	Project Management	0.45	0.70	Revised
Unallocated Physical and Price Contingencies		0.91	0.00	
	Total:	10.00	12.00	

Other Change(s)

Implementing Agency Name	Type	Action

Change in Implementation Schedule

Explanation:

The closing date for the proposed AF determines the need for adjustments to the implementation schedule.

Appraisal Summary

Economic and Financial Analysis

Explanation:

The addition of US$2.0 million dollars to the economic costs of the project does not prevent the project from achieving the originally estimated ERR of 25% and the benefit-cost ratio of 2.0. This is due to the

introduction into the analysis of the mitigated damages (project benefit) for the catastrophic drought of 2012.

Technical Analysis

Explanation:

There are no technical changes compared to the original design.

Social Analysis

Explanation:

There are no changes to the project's social aspects compared to the original design. The project's activities are aimed at improving capacity of public systems for severe weather forecasting and disaster preparedness, thus not directly impacting the population. No disproportionate gender impacts are expected as result of the implementation of the AF.

The parent operation aimed to strengthen resilience to the extreme weather conditions particularly in the agricultural sector. Based on the premise that unsustainable subsistence agriculture forces outmigration of men from the rural areas that are affected the most by extreme weather conditions, women are left behind to perform unilaterally all the household duties at the expense of their childcare duty (34% of households in Moldova are female-headed). This negatively impacts their families and the social capital of the community. More climate resilient agriculture could potentially reduce outmigration from rural areas. According to the WB Moldova: Gender Disparities in Endowments and Access to Economic Opportunities (2014), 24% of employed women in Moldova work in agricultural sector and 14% of the businesses owned by women are concentrated in the food sector. To this end, improved resilience of the agricultural sector will positively affect livelihoods of both women employed in agriculture and those running businesses related to food processing.

The parent project and the AF have clearly identifiable beneficiaries and the AF presents an opportunity for tracking the citizen engagement aspects. A full-fledged beneficiary feedback survey is not feasible at this stage of implementation, so the AF will focus on ensuring proper dissemination of the project's lessons on the practical cases of adaptation to climate risks. To this end, the following, new intermediate results indicator will be included in the Results Framework: **"Project supported organization(s) publish reports on the effect of collaboration with stakeholders"** (Yes/No).

Environmental Analysis

Explanation:

There are no changes to the project's environmental aspects compared to the original design.

Risk

Explanation:

There are no changes to the risk section, other than transition to SORT away from ORAF.

Annex 1: Results Framework

Project Development Objectives

Original Project Development Objective - Parent:

The Project development objective (PDO) is to strengthen the State Hydro-meteorological Service's ability to forecast severe weather and improve Moldova's capacity to prepare for and respond to natural disasters.

Proposed Project Development Objective - Additional Financing (AF):

Results

Core sector indicators are considered: Yes

Results reporting level: Project Level

Project Development Objective Indicators

Status	Indicator Name	Core	Unit of Measure		Baseline	Actual(Current)	End Target
Revised	More specific forecasting of weather conditions.	☐	Text	Value	Scale of weather forecasts at 5000 sq. km.	In progress.	Scale of weather forecasts reduced to 300 sq. km.
				Date	05-Aug-2010	04-Jun-2014	30-Jun-2016
				Comment			
Revised	Expanded lead time of weather warnings to users, particularly DES.	☐	Text	Value	Lead time for severe weather warnings only 10 minutes to 1 hour.	Partially completed with the installation and operationalization of the Doppler Radar.	Lead time for severe weather warnings expanded to 3-6 hours.
				Date	05-Aug-2010	04-Jun-2014	30-Jun-2016
				Comment		In progress.	
Revised	Strengthened capacity to	☐	Text	Value	No Emergency	The Emergency	Emergency

	coordinate response to emergencies.				Command Center to coordinate response among relevant agencies.	Command Center is operational.	response drill shows capacity improvements as compared to the baseline.
				Date	05-Aug-2010	04-Jun-2014	30-Jun-2016
				Comment		Two emergency response drills are planned to take place in the next 10 months.	

Intermediate Results Indicators

Status	Indicator Name	Core	Unit of Measure		Baseline	Actual(Current)	End Target
Revised	Installation of Doppler radar which improves weather monitoring and forecasting.	☐	Text	Value	No effective radar is currently installed.	The radar system is operational.	As the radar is installed, improved forecasts are produced with warnings when appropriate.
				Date	05-Aug-2010	04-Jun-2014	30-Jun-2016
				Comment			Precipitation estimates of 10 % accuracy are no longer targeted.
Revised	Now-casting tools, data collection and dissemination improved.	☐	Text	Value	The process of automated data collection or dissemination is not available	Procurement of automated systems is under way.	Operational now-casting is realized: automated data are collected,

					for an early warning system.		disseminated and integrated with the radar system and properly visualized, resulting in timely warnings for users.
				Date	05-Aug-2010	04-Jun-2014	30-Jun-2016
				Comment			
No Change	The ECC is established, tested and operational	☐	Text	Value	An additional floor is built to accommodate the ECC	Completed	ECC has been tested and is operational
				Date	05-Aug-2010	04-Jun-2014	30-Sep-2014
				Comment			
Revised	ECC users are trained to operate the emergency management system.	☐	Text	Value	No staff currently trained in the emergency management information system.	In progress.	Relevant personnel (at least 90) trained in the emergency management system established in ECC.
				Date	05-Aug-2010	04-Jun-2014	30-Jun-2016
				Comment			
No Change	At least 50 investment grants provided and put on the demonstration plots (farmers receive information about	☐	Text	Value	No activities exist to disseminate practical	53 investment grants provided. 92 demonstration and dissemination	50 demonstration plots are established; 60

	practical techniques for adaptation to climate risks on pilot basis)				experience on adaptation to climate risks other than drought	events were organized.	demonstration and dissemination events are organized
				Date	05-Aug-2010	04-Jun-2014	30-Sep-2014
				Comment		Completed.	
New	Project supported organization(s) publish reports on the effect of collaboration with stakeholders	☐	Yes/No	Value	No	No	Yes
				Date	01-Apr-2015	15-Apr-2015	30-Jun-2016
				Comment			

Annex 2: Results Framework Summary of Revisions

Original PDO Indicator	Revised PDO Indicator	Original Target	Revised Target
More accurate and specific forecasting of weather conditions	More specific forecasting of weather conditions	Scale of weather forecasts reduced to 300 sq. km	No change
Expanded lead-time of weather warnings to users, particularly DES	No change	Lead time for severe weather warnings expanded to 12 hours	Lead time for severe weather warnings expanded to 3-6 hours
Strengthened capacity to coordinate response to emergencies	No change	Emergency response drill shows capacity improvements as compared to the baseline and the recent test of the system	Emergency response drill shows capacity improvements as compared to the baseline
Original Intermediate Results Indicator	**Revised Intermediate Outcome Indicator**	**Original Target**	**Revised Target**
Installation of Doppler radar which improves precision of forecasting severe weather	Installation of Doppler radar which improves weather monitoring and forecasting	As the radar is installed, improved forecasts are produced with warnings when appropriate	No change
Now-casting tools, data collection and dissemination improved	No change	Operational now-casting is realized: automated data are collected, disseminated, and integrated with radar and flash flood system resulting in timely warnings for users	Operational now-casting is realized: automated data are collected, disseminated and integrated with the radar system and properly visualized, resulting in timely warnings for users
ECC users are trained to operate the emergency management system.	No change	Relevant personnel (at least 80) trained in the emergency management system established in ECC	Relevant personnel (at least 90) trained in the emergency management system established in ECC
New indicator	Project supported organization(s) publish reports on the effect of collaboration with stakeholders	Yes (reports published)	Not applicable

Annex 3: Revised Estimate of Project Costs (US$M)

Component Name	Current Cost	Allocation of contingencies*	Allocation of Additional Financing	Total Revised Proposed Cost
Strengthen the SHS Severe Weather Forecasting Capacity	4.36	0.20	0.34	4.90
Improve Disaster Preparedness and Emergency Response	2.45	0.54	1.45	4.44
Initiate Activities for Adaptation to Climate Risks in Agriculture	1.83	0.13	0.00	1.96
Project Management	0.45	0.04	0.21	0.70
Total:	**9.09**	**0.91**	**2.00**	**12.00**
Physical Contingencies	*0.45*			
Price Contingencies	*0.45*			
Total Original Project Cost:	**10.00**			

* Unallocated physical and price contingencies from the parent project.

Annex 4: Confirmation of Financial Arrangements

1. The financial management functions under the Additional Financing will be handled exactly as under the parent project. A Project Management Team (PMT) will remain responsible for the flow of funds, accounting, reporting, and auditing, both under parent project and its additional financing. There would be no changes in the financial management and disbursement arrangements.

2. The financial management arrangements of the DCRMP have been reviewed periodically as part of project supervision and have been found satisfactory. According to the latest Financial Management supervision (December 2014), the financial management arrangements of the project continue to be satisfactory and the control procedures are in place. The client is in compliance with the audit covenant: all the audit reports have been received to date and there were no delays in submitting them to the Bank. For the project financial statements, the auditors have given an unqualified opinion and there were no internal control issues in the management letter. The financial management arrangements of the project remain acceptable to the Bank. The overall Financial Management risk for the project is moderate. Similar audit arrangements will be adopted for the Additional Financing, which will be included in the overall project audit. The audit of the project will be conducted by independent private auditors acceptable to the Bank, on Terms of Reference acceptable to the Bank, and procured by the PMT. The annual audited project financial statements will be submitted to the Bank within six months of the end of each fiscal year and also at the closing of the project. The cost of the audit will be financed from the proceeds of the credit.

3. Interim Un-audited Financial Reports (IFRs) will be used for the Additional Financing monitoring and supervision. The existing formats of the IFRs will be used and the PMT will produce a full set of IFRs every quarter throughout the life of the project and will submit them to the Bank no later than 45 days after the end of each quarter.