MID-TERM EVALUATION OF THE CENTRAL ASIAN MULTI-COUNTRY PROGRAMME ON CLIMATE RISK MANAGEMENT

November 2013

ACRONYMS AND ABBREVIATIONS

ADB	Asian Development Bank
AF	Adaptation Fund
AISHF	Automatic Information System Hydrological Forecasting
APRs	Annual Progress Reports
BCPR	Bureau for Crisis Prevention and Recovery
CIS	The Commonwealth of Independent States
BRC	Bratislava Regional Centre
MET	Mid-term evaluation
CA	Central Asia
CA-CRM	Central Asia – Climate Risk Management
CACILM	Central Asian Initiative for Land Management
CAHMP	Central Asia Hydrometeorology Modernization Project
CAREC	Central Asia Regional Economic Cooperation
CARRA	Central Asia Regional Risk Assessment
CCCI	Coordination Commission on Climate Change Issues (CCCI).
CD	Capacity Development
CDKN	Climate and Development Knowledge Network
CDM	Clean Development Mechanisms
CFO	Climate Finance Options
CIS	Commonwealth of Independent States
CO	Country Office
CPR	Crisis Prevention and Recovery
CRP	Climate Risk Profile
CRM	Climate Risk Management
DIPECHO	Disaster Preparedness ECHO
DMCSEE	Drought Monitoring Centre for the South-Eastern Europe
DRR	Disaster Risk Reduction
EARS	Environmental Agency of the Republic of Slovenia
EBRD	European Bank for Reconstruction and Development
E&E	Energy & Environment Practice
ENVSEC	Environment and Security Initiative
EU IfS	European Union Instrument for Stability
EWS	Early Warning Systems
GEF	Global Environment Facility
GLOF	Glacial Lake Outburst Flooding
HR	Human Resources
IAWG	Inter Agency Working Group
IC	International Contract
ICARDA	The International Center for Agricultural Research in the Dry Areas
KMP	Knowledge Management Platform
MCB	Multi-Country Capacity Building
MCN	Multi-Country Climate Network
MDB	Multi-lateral Development Banks
MYRF	Multi-Year Results Framework
NTA	National Technical Advisor
NCN	National Climate Networks
NCRP	National Climate Risk Profile
OCHA	Office for the Coordination of Humanitarian Affairs
PEI	Poverty and Environment Initiative Project
PES	Payment for Ecosystem Services
PMC	Pasture Management Committee

PMEL	Planning, Monitoring, Evaluation, and Learning
POPP	UNDP Programme and Operations Policies and Procedures
PPCR	Pilot Program for Climate Resilience
PRC	Programme Regional Coordinator
RBEC	Regional Bureau for Europe and the CIS
APR	Annual Progress Report
RBM/M&E	Results Based Management / Monitoring and Evaluation
RPC	Regional Programme Coordinator
SVA-PMC	'Suusamyr Valley Association of Pasture Management Committees
SWC	Soil and Water Conservation (SWC)
TA	Technical Assistance
ToT	Training of Trainers
UNFCCC	United Nations Framework Convention on Climate Change
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
USAID	United States Agency for International Development
VRA	Vulnerability and Risk Assessment
WB	World Bank
WEAP	Water Evaluation And Planning system
WMO	World Meteorological Organization
WOCAT	World Overview of Conservation Approaches and Technologies
WSC	Water and Soil Conservation

EXECUTIVE SUMMARY

Introduction

The present document is the mid-term evaluation of the multi-country Central Asia Climate Risk Management (CA-CRM) Programme. The Programme is designed to cover all five countries of Central Asia and is planned for March 2010 – March 2015.

This independent evaluation was requested by the UNDP Bratislava Regional Centre, its Representative Office in Central Asia (Almaty, Kazakhstan), and the UNDP Country Offices in Central Asian countries. The overall objective of the evaluation is to provide an objective assessment of the progress made by the Programme towards its targets, provide recommendations to inform the Programme implementation for the remaining period, and facilitate learning to inform current and future activities within the Programme. The evaluation examined the Programme implementation vis-à-vis its development objectives at both regional and national levels.

The evaluation used a combination of desk review of strategic documents, field visits to four countries, and interviews with the relevant stakeholders, including local governments, other agencies, and civil society organizations, etc.

Background

The Central Asian region already today is experiencing different impact of the changing climate. Despite many similarities the Central Asian countries experiencing similar challenges facing climate variability and climate change. The following issues raise concerns of the local governments and population: *Management water resources in the face of increased glacial melting and reduced snow melt, Management of climate-induced disasters, Reforestation, Livestock management, Improved water management in the agriculture sector*. Through initiating CA-CRM Programme UNDP has committed to support the efforts of the national authorities to manage the priority climate risks in the region.

Towards this end, the CA-CRM Programme was designed to address both regional and national climate risk management issues. The regional component of the Programme is focused on strengthening technical capacities, sharing knowledge on CRM and specifically on glacial melting in Central Asia. The national components are focused on strengthening institutional frameworks and technical capacities, expanding financial option for climate change adaptation, and knowledge dissemination on CRM.

The Programme is one of the few in the region that has a cross-practice nature combining Conflict Prevention and Recovery Practice and Energy & Environment Practice, where both provide technical guidance and coordination. Such a construction has been proven successful allowing comprehensive consideration of both disaster and climate risks in their intrinsic correlation.

Key Findings and Recommendations

The Programme is addressing one of the most articulated challenges in the region and is well aligned with the national development priorities of the Central Asian countries. However, the suit of activities planned in the initial Programme design is based on almost three-times larger budget than what was possible to mobilize. Despite financial limitations the Programme attempted to maintain the same initial focus, addressing a broad range of thematic issues across the countries. The Programme would benefit form a sharper focus and revision of its objectives by the end of the implementation period vis-à-vis its budget. This would also require revision of the outputs and outcomes indicators as proposed in the report.

The Programme has made a solid yet uneven progress towards its objectives. Uneven progress is largely explained by the differences in the local context, local capacities to manage climate risk, and slow start up of the Programme. Significant results have been achieved regarding strengthening national legal and regulatory frameworks and supporting implementation of the national climate change adaptation strategies. Positive examples of partnering up with the Adaptation Fund (AD) have been recorded (like in Turkmenistan), where CRM Programme provided an assessment of the climate risk and AD providesd support to mitigation measures. Such complementarity of efforts has a potential of growing into a model that can be replicated in other countries of the region. Additional attention of the RPC is needed to improve the Programme realization in Kyrgyzstan and Turkmenistan that have the least progress demonstrated.

Close partnership has been established with the relevant national authorities in all countries of operation. A very successful example of the project governance mechanism was demonstrated within the Uzbekistan project, where the project is governed and received technical support from a group of experts each being a representative of a relevant national stakeholder i.e. various ministries. This provides a solid foundation to ensure national ownership over the project results. The Programme can learn from this experience and share it with the other partners.

The focus on capacity-development and knowledge-sharing ensures programme sustainability, yet, these efforts need to be intensified within the Programme. Many regional and national capacity development efforts have been successfully realized, however, the Programme would benefit from more targeted efforts towards straightening institutional capacities of the partner countries. The Programme would also benefit from a clearly defined concept of 'knowledge management' and its target realization.

The implementation of the Programme requires stronger guidance and quality control from the PRC. The Programme has experienced a significant staff turnover, where all its project managers have been replaced, some twice. This requires additional efforts from the PRC to ensure smooth realization of the Programme. Internal project reporting provides limited information on the scope and the scale of the Programme realization. The Programme would benefit from more realistic reporting, sharing both very successful and less successful accomplishments. Also, the realization of the Programme has demonstrated that there is a need for more effective risk management to 'foreseen' and avoid trouble-shooting missions. Therefore, the additional attention to quality control is required.

The Programme has a focus on gender sensitivity and gender balanced implementation of its activities. All countries exceed the 15% threshold of budget spending on gender-related issues as required by BCPR.

Conclusions

The Programme is at its midpoint and full results are yet to be seen. It has demonstrated some visible and potentially promising results and therefore given all challenges it has faced its performance can be rated as ***satisfactory***. After the final round of consultations with the technical advisors of the Programme, the evaluation concludes, that the Programme should put additional efforts to achieve most of its outcomes, major goals and objectives, and yield substantial benefits in terms of strengthening resilience of economies and population in CA.

Total Rating: Effectiveness and Efficiency of the Programme

Category	*Rating*
Overall rating	***Satisfactory***

Regional component	Satisfactory
Kazakhstan	Satisfactory
Kyrgyzstan	Marginally Satisfactory
Tajikistan	Highly Satisfactory
Turkmenistan	Marginally Unsatisfactory
Uzbekistan	Highly Satisfactory

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CHAPTER 1: INTRODUCTION

1.1 CA-CRM Programme Overview

The CA-CRM Programme is a multi-country programme that covers all five countries of Central Asia and is designed in a cross-practice manner including Crisis Prevention and Recovery (CPR) and Energy & Environment (E&E) Practices. The Programme life cycle is March 2010 - March 2015.

The Programme is designed to address the risks posed by current climate variability and future climate change. CA-CRM seeks to strengthen climate-related disaster risk reduction and adaptive capacity, promote early action and provide the foundation for long-term investment to increase resilience to climate-related impacts across the region. CA-CRM Programme has its specific focus of interventions within each country of operations as well as at the regional level. The original Programme Document was developed in 2009 and then adjusted for each of the six projects during the Inception Phase during February - September 2011.

CA-CRM is a multi-country intervention, where each national project was adjusted and tailored to the actual priorities and sensitivity of the country context. The thematic and geographic focus for each of the national projects was defined in close consultations with national governments and other stakeholders. A detailed situation analysis was added during the Inception phase into the set of activities of each CA-CRM Project. The Programme has diversified its response across the countries of operation as follows:

- in Kazakhstan the focused is on water efficiency in agriculture;
- in Kyrgyzstan the focused is on effective pasture management of Kyrgyzstan's herder communities
- in Tajikistan the focused is on promoting the development of productive agro-forestry as a response to climate risk
- in Turkmenistan the focused is on improving the provision of CRM information to vulnerable livestock management and agricultural communities, with pilot assessments undertaken in three typical climatic zones (Mountain, Desert, and Irrigated Oasis).
- in Uzbekistan the focused is on a small/medium-sized basin water resource management, drought management and minimization of the negative impacts of climate-induced disasters (e.g. drought, mud-slides)

The Programme also aims to address gender equality, because risks differ for the genders and various social vulnerable groups.

1.2 Purpose of Evaluation

This evaluation was requested and managed by the UNDP Bratislava Regional Centre, its Representative Office in Central Asia (Almaty, Kazakhstan), and the UNDP Country Offices in Central Asian countries. The CA-CRM Programme, as part of its annual work plan approved by the Programme Board, commissioned an independent mid-term evaluation of the programme covering the implementation period of March 2010 – October 2013. The Regional Programme Management Unit (Almaty, Kazakhstan), and the corresponding UNDP COs and CRM projects management units in the corresponding CA countries provided assistance and support to the evaluator by providing logistical support, including arranging meetings/contacts with stakeholders, including local governments, other agencies, and civil society organizations, etc.

The overall purpose of the mid-term evaluation is a strategic review of the Programme performance to date in order to:

(a) to identify project design and management issues, including but not limited to (i) development priorities at the regional and national level; (ii) stakeholders needs; (iii) country ownership; (iv) adaptive capacities or resilience of population in focus areas of interventions of projects under the CA-CRM.
(b) to assess progress towards achieving the targets, results and impact, as well as use of resources,
(c) to identify and document the lessons learned (including lessons that might improve the design and implementation of other UNDP projects),
(d) to make recommendations regarding specific actions and project adjustments that could be made to improve the project, and the support needed to achieve the intended impacts by the end of it,
(e) Help project management and stakeholders set the course for the remaining duration of the project.

The evaluation examined the Programme implementation from two perspectives: the extent to which the objectives of the regional component of the Programme were realized and the extent to which the objectives of the national components are achieved by the time of evaluation or are to be potentially achieved, taking into consideration the peculiarities of the national context where the Programme is placed. The results of the evaluation are expected to serve as a means of validating or filling gaps in the initial assessment of relevance, effectiveness and efficiency and thus help to ensure that the implementation of the Programme during the remaining period of June 2013 – December 2014 would produce the expected outcomes.

The evaluation is also informed by the results of the following external evaluations carried out in 2012:

- ***RBEC Regional Programme Evaluation,*** in which CA-CRM was not a specific focus of evaluation, however, some useful recommendations were arrived as concerning the strategic positioning of UNDP in the region.
- ***Europe and CIS in the global programme evaluation,*** in which the CA-CRM was evaluated as a part of the UNDP Global Programme IV with the primary focus on identifying strategies and operational approaches to further strengthen UNDP's development effectiveness through its Global Programme.
- ***BCPR Monitoring and Evaluation,*** in which a more in-depth review of the CA-CRM Programme was carried out as part of a monitoring mission by BCPR, which took place in September 2012. The mission looked at the implementation of CA-CRM as a whole and its individual projects.

1.3 Scope of the Evaluation

This is the mid-term Programme evaluation covering the implementation period March 2010 – October 2013. The evaluation was guided by the Programme results framework and took into account the strategic changes made over time in the regional and national components of the Programme as well as the contextual nuances that either hinder or facilitate the implementation of the Programme. In line with the Terms of Reference (Annex 1), the evaluation examined the Programme implementation vis-à-vis its development objectives:

a) ***Regional level*** that includes activities across the Central Asia region;
b) ***National level*** that covers activities in each of the five target countries: Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan.

1.4 Structure of the Report

The Report consists of the Introduction and nine Chapters. Chapter 1 provides an introduction to the purpose and the scope of the evaluation. Chapter 2 provides an overview to the evaluation methodology. Chapter 3 provides analysis and the rating for the Programme

concept and its design. Chapter 4 provides analysis and rating of each of the Programme component: regional and five national ones. Chapter 5 evaluates the Programme management arrangement including such elements as cross-practice coordination, monitoring and reporting, South-South cooperation, and coordination with other initiatives. Chapter 6 reflects on synergy, sustainability, and replication of the Programme results. Chapter 7 analyzes the options for the Programme exit or extensions. Chapter 8 offers conclusions and recommendations. Chapter 9 provides a list of Annexes.

CHAPTER 2: EVALUATION METHODOLOGY

2.1 Scope of the Methodology

The evaluation was conducted using a combination of tools and methods. As a mid-term evaluation with primary focus on the Programme implementation its methodology lends itself on qualitative methods of inquiry. These include a desk study of relevant documentation, field visits, and individual or group interviews (including telephone/Skype interviews where needed) with multiple stakeholders. The chosen methods meant that the expected diversity in the profiles of the selected respondents could be addressed while encouraging them to extrapolate their views according to the varied nature of their relationships or involvement in CRM Programme implementation and in the management of climate risk in the CA region, in general.

The evaluator consulted a number of relevant sources of information, such as the CA-CRM Project Documents (both regional and national components), project reports – including annual progress reports (APRs), project budget and financial reports, monitoring reports, project reports/publications/files, national strategic and legal documents, media publications, and any other materials that were considered useful for an evidence-based evaluation.

A mission was organized to Uzbekistan, Kazakhstan, and Tajikistan. Kyrgyzstan was covered by a desk review and telephone/Skype interviews. The evaluator within the framework of another project has visited Turkmenistan, which has given the possibility to become acquainted with the progress of CRM project in Turkmenistan too. In addition, Skype interviews were organized to solicit a broader range of opinions about the progress of the project.

The evaluation is based on a consultative approach with the Programme staff, government counterparts, academia, and other stakeholders across the region. The list of people consulted is provided in Annex 2.

Evaluation criteria and questions

The Programme's performance was examined from two perspectives: first, through an assessment of its implementation at the regional level; and second, through an assessment of its implementation at the national level in each of the target countries. Special attention was paid to address the synergy between the regional and national components. The Programme implementation was assessed based on the following criteria:

- *Programme design and relevance*: The extent to which the regional and national components of the Programme are relevant to the priority development challenges and the emerging needs of the region.
- *Programme performance: effectiveness*: The extent to which the regional and national components of the Programme have contributed (or are likely to contribute) to achieving the intended results.

- *Programme performance: efficiency*: The extent to which the regional and national components of the Programme have made appropriate use of its financial and human resources.
- *Sustainability, Synergy, and Replication:* The likelihood that the results achieved through the regional and national components are sustainable, generate synergy across the region and/or across other relevant initiatives, and provide the necessary basis for a national or regional scaling up.
- *Management arrangements:* The extent to which the management arrangements support the Programme implementation within the budget, on time, and in accordance with the quality requirements.

An evaluation matrix detailing the evaluation criteria and related questions was developed at the start of the evaluation and is attached to this report (Annex 4). Cross-validation of findings and verification of positions was achieved based on the feedback received from the respondents and whenever possible, the relevant Programme staff from each target country.

2.2 Limitations

The limitations are caused by the complexity of the Programme design and the environment in which the Programme is called on to operate. The intended activities within the Programme had to be tailored to the specifics of the local context in each of the countries of operation. This has resulted in an uneven progress of the Programme in each country. Therefore, the measurement of the progress should be based not only on the results framework but also on the level of constraints or on how favorable the context was for CRM activities in each country of operation. Also the evaluation scores were 'weighted' and therefore adjusted based on the comparative overview of the progress of each component.

The Programme rate of Turkmenistan is based on the expectations that after the period of protracted delays the Programme realization in Turkmenistan is back on track (from about June-July 2013) and would ensure the realization of some of the project main objectives.

It should be mentioned that the mid-term evaluation is to a large extent based on the data derived from the internal Programme monitoring system and depends to a certain extent on the scope and the reliability of the monitoring data. The project (both financial and narrative) reports provide a limited scope of information that causes some challenges in understanding the whole picture to assess the effectiveness and efficiency of the Programme realization and thereby required additional rounds of consultations.

The evaluation was designed by the Regional Programme Coordinator in a way that the evaluator was not able to visit one country of operation, Kyrgyzstan, and had to largely rely on the secondary data analysis and interviews with the key stakeholders. The evaluation was also informed by the letters sent by several local stakeholders in Kyrgyzstan (National Academy of Sciences, Coordination Commission on Climate Change Issues, Kyrgyzhydromet) in response to the publications made within the Programme (see Annex 10).

CHAPTER 3: CA-CRM CONCEPT AND DESIGN

3.1 Context and CA-CRM Response

Programme Context and Relevance

The current Programme is designed around the following themes:

- ***Managing water resources in the face of increased glacial melting and reduced snow melt[1]:*** Global climate models and glacial melting models indicate that between 64% and 95% of the remaining glacial area in large parts of CA will be lost by 2100, depending on the extent of warming that takes place in the region[i] with severe consequences in terms of the ecology, economy and human life.
- ***Management of climate-induced disasters:*** The main climate-induced disasters (e.g. drought, mudslides, landslides, floods and GLOFs) affecting CA countries are intrinsically linked to climate variability and are likely to be exacerbated by climate change.
- ***Reforestation:*** Reforestation in the region helps to effectively address some climate-induced disaster risks: e.g., drought, mudslides and landslides, soil erosion and siltation of dams, reduces dust in the atmosphere, improves soil fertility and provides shade for livestock and wood for timber/fuel.
- ***Livestock management:*** Climate variability and climate change are likely to result in a reduction in pasture productivity (through increased evapotranspiration rates and reduced grass growth), which will have a significant impact on livestock productivity. One area that CA-CRM focused on as a result is an analysis of the impacts of climate on pasture and livestock productivity, the results of which can be used to promote appropriate changes in livestock farming methods (e.g., using more remote pastures and developing alternative livelihoods).
- ***Improved water management in the agriculture sector:*** The predicted increase in temperature across CA as a result of climate change requires adaptation by the agricultural sector to mitigate looming food security crises. Diversifying crops and/or planting drought-resilient cultivars and installing drip irrigation systems are important adaptation methods, but may not be sufficient on their own. Policy incentives to improve water efficiency and encourage livelihood diversification are likely to be among the most appropriate methods of adaptation.

The Programme is called upon to operate in a highly challenging context. A variety of issues will affect its implementation at regional and national levels:

Exposure and vulnerability to climate and disaster risks: Even today the region is already experiencing to a certain extent the impact (both positive and negative) of climate change and the associated climate risks. Given that the majority of emergencies and small and medium size disasters in the Central Asian region are triggered by hydro-meteorological hazards, including drought, floods, mudflows, extreme temperatures and rainfall-related landslides, as well as other causes, the situation is likely to be exacerbated by a changing climate. *Water* is a scarce natural resource in CA that governs relationships between countries in many other areas, and often is a source of conflict. Climate change impacts and climate variability, particularly rising temperatures, changes in rainfall patterns and glacial melting, are drastically altering the hydrological cycle in CA (2-3 week shifts have already been recorded today), and as a result, exacerbate the existing water scarcity problems and water-related conflicts. This is likely to have a negative impact on energy supply and food security.
The focus of the regional component chosen to be addressed by the Programme is one of the most contested but also one of the most sensitive issues in the region and is fully justified.

[1] The impacts of glacial melting are cross-sectoral in that they will affect hydropower generation, water supply and agricultural productivity.

This issue can be resolved only through effective regional cooperation. While the national components of the Programme focus on context-specific issues in each intervention country. This approach enables a broader range of issues to be addressed under the Programme in an attempt to find for the best solutions to tackle these climate risks. Despite the fact that the Programme has chosen a specific focus in each of the countries of operation, there is one theme that cuts across all issues related to the climate risk in the region, namely drought and water management. In agro-forestry or agriculture, for instance, the potential soil degradation and effective water management are inevitable issues to be addressed. By addressing climate risks in the chosen thematic focus within each country of operation, the Programme has creased the solid foundation to further explore the issues of water and drought.

Addressing adverse impact of climate change and associated climate risks is highly relevant. However, the changing climate creates some opportunities that also needs to be addressed when dealing with climate risks. Therefore, the Programme would also benefit from a broader focus on both negative and positive impact of changing climate.

The challenge for the CA-CRM Programme remains ensuring a healthy balance between local, on-site initiatives and regional ones. Also, of high importance for the Programme is to define the clear focus at the national level within the chosen thematic emphasis.

Lack of CRM-related expertise in the region: the climate risk management as a nexus between the climate change adaptation and disaster management is a relatively new subject in development cooperation, however it is quickly gaining momentum. One of the objectives of the Programme is to integrate climate risk management into core development policy and strategies. This is possible only when there is sufficient understanding of the benefits of CRM, when governmental agencies and non-state actors are ready to effectively address climate risks, when institutions can absorb structural solutions to address climate risks. In order to ensure adequate mainstreaming of CRM into development planning it is important to clearly define the scope of the CRM vis-à-vis climate adaptation and disaster risk management. It would be important for the Programme to set the right focus and maintain it throughout its operations. From this perspective the focus of the Programme on developing individual capacities through training events, workshop, study tours, etc. is extremely important. Besides, it is reasonable to consider more articulated institutional capacity development for the targeted institutions within each country.

The Programme design is based on a consideration of the climate impact in a selected critical sector of the economy in each country of operation. For instance, in Uzbekistan the focus is on water resource management and drought management. Thus, the capacity development efforts could also be more targeted towards and focused on the sector ‘water and drought’. Such efforts are already being made under the Programme but mainly through systematized efforts to strengthen the legal and regulatory framework. Undoubtedly, this is an important element to mainstream CRM provisions into existing legal and regulatory frameworks. However, to ensure more synergy of efforts it would be reasonable to address broader range of questions: What precisely is needed in that particular sector? How can CRM address these needs? It would be reasonable to design a mid-term capacity development strategy (3-5 years) for the selected sectors and attract donors for it realization.

Uneven socio-economic development of Central Asian countries: the five countries of Central Asia have different levels of socio-economic development, largely predetermined by the availability of natural resources (mostly oil and gas) that boost national economic growth. The strong economic growth rates in recent years in Kazakhstan, Turkmenistan, and Uzbekistan have resulted in additional financial investments in various sectors. Government agencies can mobilize the essential resources when necessary to address strategically important issues, for instance. The challenge still remains the availability of adequate technical capacity and less funding. Therefore, it would be reasonable for the Programme to

explore the potential of co-financing with the governments of the Central Asian countries. There is already experience with state-UNDP co-finding in the region with the support of higher level UNDP involvement (e.g. in Kazakhstan, Turkmenistan). Most importantly, the uneven socio-economic developments within each country of operation defines the level of existing capacities to address the climate risks and therefore, the potential obstacles for the Programme. The adaptive management approach employed within the Programme ensures adequate response to this contextual challenge. Also, this was taken into consideration while analyzing the progress of the Programme across its countries of operation.

Development landscape of Central Asia and other partners: the Central Asia development landscape is very densely populated by the UN and other international, multi-governmental, governmental and non-governmental organizations. Only a few of them have truly regional programme portfolios. Given the growing interest and pressing need for climate change adaptation and climate risk management, the development landscape is getting more and more 'crowded' with the organizations that have such focus. Given its multi-country and regional nature, CA-CRM can serve in the role of a coordinating platform for efforts in the region, avoiding unnecessary duplication and promoting synergies across interventions. However, it is open to question whether CA-CRM should take on such a role, as well as what mechanisms can CRM employ to ensure the operability and functionality of such a platform. These issues would need to be further addressed as Programme progresses. The fact that CRM is one of the initiatives supported by CARRA provides a potential starting point from which to consider the role of the Programme as a platform for longer-term engagement with various partners. This can be ensured only through dialogue with multiple stakeholders, including governmental ones. It is recommended to consider the possibility of entering into such dialogue and maintaining such focus at regional level with slow hand over to the national level. Not all national CRM teams are ready yet to take on that role (this will be further elaborated on under the national components). However, one of the most important issues to be addressed to better position the Programme/platform is the issue of the focus: what is climate risk management and how CRM's focus is different from the focus of UNDRMPs, GEF, UNEP, ICARDA, for instance.

Risk financing local mechanisms: One of the objectives of the Programme at local level is to expand the financing options to meet national climate change adaptation costs and implement climate change adaptation interventions in priority areas. Both components are highly relevant within the context of the target countries. However, the challenge remains to choose the feasible focus for the Programme. Thus, he implementation of adaptation measures can be feasible within the given budget, in-house expertise, and the time frame allocated for the Programme. The objective on expanding the financial options requires more clear focus.

Exploring risk-financing mechanisms (such as insurance, for instance) is a relevant subject for the target countries. In some of them are already attempts being made to explore index insurance in agricultural sector, like in Kazakhstan for instance. Climate funding includes public grants, financial or market-based instruments. The capacity of the public sector to provide climate grants is limited. The capacity of banks and the market to provide funding is largely untapped in the region. Development of such infrastructure to support bank or market-based financial instruments to finance climate risk are obviously beyond the capacity of the CRM Programme, at least at its current state. Instead, even at this stage, it is possible to introduce cost-benefit and cost-effectiveness analysis of CRM measures. This would help demonstrating the risk reduction in financial terms and using the outcomes of such analysis for advocacy purposes.

Programme Development Goals

The overall development goal of the Programme is to increase Central Asia's resilience to climate-related disasters and climate change impacts and in so doing secure development gains.

To contribute to this goal, the Programme aims to achieve the following development objectives: to promote the reduction of climate-related disasters and adaptation to climate change in Central Asia and to integrate climate risk management into the core development policy and strategies of the five countries of Central Asia (Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan and Turkmenistan). The strategy defined in the Programme is based on:

- Providing climate information for decision support in climate-affected sectors;
- Improving sustainable development outcomes in the face of the present climate variability;
- Providing the capacity required to cope with both current and future variability and change;
- Reducing socio-economic vulnerability to extreme climate events, combined with strategies to enable communities to capitalize on favorable climate conditions, where and when such may exist.

The Programme is being implemented at two levels: regional and national with a rather broad focus:

b) ***Regional level*** includes activities throughout the Central Asia region in the following areas:

- strengthening technical capacity to manage climate-related risks and opportunities;
- sharing knowledge on ways to amend national development processes to fully incorporate climate-related risks and opportunities; and
- synthesizing and further developing knowledge on glacial melting in Central Asia (completed in 2011).

b) ***National level*** covers activities in each of the five targeted countries: Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan, in the following main areas:

- strengthening institutional frameworks and technical capacity to manage climate change risks and opportunities in an integrated manner and develop climate-resilient strategies, policies and legislation in priority sectors and geographic areas;
- expanding financing options to be able to meet national climate change adaptation costs and implement climate change adaptation interventions in priority areas; and
- disseminating knowledge on how to incorporate climate change knowledge and risks into development processes at national, regional and local levels.

CA-CRM design vis-à-vis *its context*

The Programme is designed to address one of the most contested and challenging thematic areas for the region, i.e. managing climate risks in light of the changing climate and its potential impact on the population, infrastructure, and all sectors of the economy. Through its regional and five country components, the Programme is focused on the goal of *Supporting Integrated and Comprehensive Approaches to Climate Change Adaptation in Central Asia*. The regional objectives of CRM are in line with the UNDP goal in the area of E&E. The CA-CRM directly contributes to Outcome 1 of the Regional Programme for Europe and CIS managed by the UNDP headquarters in New York and the Regional Centre in Bratislava, Slovakia "By 2013, national and sub-national levels in the region have improved capacity to support the transition to low-emission and climate-resilient economies".

Most importantly, the objectives of the Programme are relevant to the needs and wants in the countries of operation. The Programme is in line with the national strategic priorities of the target countries and can be considered as a unique platform that brings together disaster risk management and climate risk management considerations to improve planning and decision-

making and thereby increase the resilience of the society to climate-induced natural hazards in the short and long-term.

The design of the Programme allows for the cross-fertilization and intersection of priorities and activities that have regional and national significance. The multi-country design of the Programme facilitates cost efficiency by organizing cross-border events addressing regional public natural resources (e.g. water). The selected focus on water, energy, agriculture and the nexus between them, offers a unique terrain in which to develop tailored solutions that can contribute to greater political stability in the region, increased adaptive capacities by different institutions at national level, and increased resilience of the relevant sectors of the economy with a potential spillover effect.

Certain inconsistencies in the design of the Programme should also be noted. As indicated by the indicator '100% of key stakeholders/institutions with regional mandates trained in CRM by the project' the regional focus of CD efforts are on the organizations with 'regional mandates'. Such focus of the Programme's regional component does not suggest that sufficient importance is given to joint capacity development events. This is highly important from several perspectives: achieving economies of scale and cross-country knowledge sharing, to mention just a few. In fact, this is already happening within the Programme, namely, the organization of regional capacity development events to optimize operational efficiency and ensure cross-country learning. With no such focus ahead planning is not possible either. However, the implementation of the Programme has been focused on this issue under its so-called 'South-South' cooperation, an initiative that was developed and implemented in the later stages of the Programme implementation. The objectives are to optimize the intervention, ensure the exchange of lessons learned and experience, and avoid its implementation as a set of individual projects rather than an as an integrated regional intervention. It is recommended that joint capacity development be considered as indivisible part of the regional component and be fully supported within the regional component to ensure that economies of scale are achieved in CD efforts wherever possible.

The main climate-induced disasters (e.g. drought, mudslides, landslides, floods, GLOFs, etc.) affecting CA countries are intrinsically linked to climate variability and are likely to be exacerbated by climate change. Therefore, an integrated approach to disaster and climate risk management is highly justified. However, there is a need to more clearly articulate that link in the Programme implementation to ensure adequate implementation of the Programme objectives. While disaster risk assessment is based on a retrospective view of past events and has mainly negative consequences for society, a climate risk assessment is scenario-based, implying a greater level of uncertainty and may entail both positive and negative consequences. Importantly, the differentiation between weather, climate variability, and climate change vs. disaster risks would also benefit the Programme design and help to sharpen its implementation focus.

To effectively address climate risk it is necessary to first identify and assess those risks. This was envisaged by the design of the Programme to first define the climate risks within each country of intervention, define the capacities of the stakeholders to address the risks, and then implement risk mitigation measures and develop relevant capacities of stakeholders. In the absence of any climate risk assessment methodology this was a rather ambitious design. During the implementation it has become obvious that it would require longer time and more specific expertise to come up with the climate risk assessment tool. Yet, this did not hinder the Programme to choose the focus of its country components. In most of the cases the Programme is building upon the previous initiatives of UNDP allowing thereby larger sustainability of institutional efforts of UNDP. However, climate risk assessment remains a necessary precondition for the further effective realization of the Programme.

To step up the efforts of climate risk management requires and based upon an adequate

integration of the climate services into planning. The provision of climate services is within the mandate of the WMO focal points in each country that are based in the national hydromet services. Therefore, it is important to create closer links between the Programme and the local HydroMet organizations like it was done in Uzbekistan and Turkmenistan. Moreover, it is recommended to consider taking into account the WMO's work on standardization for hazard monitoring, databases and metadata, as well as analysis techniques in support of risk assessment: http://www.wmo.int/pages/prog/drr/projects/Thematic/HazardRisk/2013-04-TechWks/index_en.html

Effective risk management is impossible without considering consequences of the risk and the risk management in financial terms. Thus, the implications of climate risk management are also important to consider. It is recommended to ensure cost-benefit and cost-effectiveness analysis of each CRM intervention. It is also recommended to use the knowledge gained in the relevant areas and provided among the others in the UNDP/World Bank Climate Finance Options (CFO) Platform http://climatefinanceoptions.org/cfo or EuropaRE http://www.europa-re.eberlesystems.ch for instance.

3.2 Programme Indicators

Based on an analysis of the outcome and output indicators *vis-à-vis* the current relevance and progress of the implementation of the Programme, some recommendations and justifications can be made.

CA-CRM Programme Level

Current Indicators	Proposed Adjustments	Comments
Indicator1: Area under CRM interventions	*Output indicator1a:* Number of scale-ups and generated replications *Outcome indicator:* Reduced climate risk in [sector] (e.g. water, agriculture, agro-forestry, etc.)	The existing indicator is only partly valid. The innovative approach to CRM could be tested in a small area (in ha). This could have significant persuasive power and offer strong potential for scale-up and replication. One of the options to measure the outcome indicator is to introduce cost-benefit analysis of all CRM interventions. This would allow demonstrating the reduced risk in financial terms.
Indicator2: Vulnerability Risk Assessment Score	*Output indicator1:* Availability of Climate Risk Assessment Methodology *Output indicator2:* Country baseline climate risk assessment + list of recommended risk response measures *Outcome indicators:* decision-making and planning is informed by the climate risk assessment	There is a need to significantly improve the proposed Climate Risk Assessment Methodology. Only on the basis of the final methodology is it possible to provide a Climate Risk Assessment at national level as a baseline. The changes in the score of the climate risk would be visible after a longer period of time than the given duration of the CRM Programme allows. Therefore, this could be an outcome indicator should the implementation of the Programme be continued beyond the horizon of 2014. The outcome indicators can be measured by the level of mainstreaming CRM into development planning.
Indicator3: Capacity Assessment Score	*Cancel this indicator*	This is a relevant indicator at national level but not at regional level. Unless, a technique is developed for calculating a *cumulative* score for *all* Programme partners. Instead, it is recommended to design and implement capacity development strategy for a target sector within each country of intervention.
Indicator4: % of budget spent on gender issues by regional and 5	Consider introducing additional indicator.	The requirement of BCPR to channel a certain % of budget into gender issues is not supported by any methodology or tool for the calculation of

national projects		such costs. However, it is still a useful proxy for gender sensitivity. The importance is in ensuring that CRM initiatives *are* gender sensitive, taking into consideration the strategic and practical needs of girls and boys, men and women. In that sense, it might be reasonable to consider introducing a check-list and making sure that each CRM initiative is screened *vis-à-vis* that checklist. This would point each initiative in the right direction from inception.
	Missing indicator to be added	The CRM Programme is being implemented as a platform to support innovative ideas and initiatives. There are extensive joint events/initiatives supported by the Programme. Therefore, it is recommended to add an indicator to reflect the relationships (coordination, cooperation, and collaboration) with the partners.
	Missing indicator to be added	Another indicator worth adding concerns (new) tools, approaches, methodologies successfully piloted in the Programme and the change they have stimulated on the side of beneficiaries. It would be useful to channel the voices of the beneficiaries allowing adequate modification of the Programme realization in line with the expectations of its stakeholders. Therefore, it is recommended to use Most Significant Change (MSC) approach or using micro narratives to document the added value of the tools, approaches, methodologies provided under the Programme.

Output 1: Technical capacity and knowledge in the area of climate risk management in Central Asia strengthened

Current Indicators	***Proposed Adjustments***	***Comments***
Indicator1: Number of knowledge articles on CRM.		n/a
Indicator2: An online tool developed by CA-CRM and made available to provide access to data and information		n/a
Indicator3: Number of experts/specialists and stakeholders with increased knowledge of CC and CRM (Based on post-training surveys)		n/a

Output 2: Climate Risk Management Project in Kazakhstan

Current Indicators	***Proposed Adjustments***	***Comments***
Indicator1: Area under water efficiency practices introduced		Similar to that under regional level
Indicator2: Area under		Since there is already Indicator 1, this remains

CRM interventions		somewhat irrelevant
Indicator3: Vulnerability Risk Assessment Score		Similar to that under regional level
Indicator4: % of budget spent on gender issues		Similar to that under regional level
	Missing indicator to be added	CRM country projects support various initiatives with little contribution thereby leveraging a) additional funding for CRM-related issues; b) the status of the Programme; c) importance of CRM. There is a need for an indicator to capture the leveraged gains of the Programme, e.g. the amount of funds leveraged per year per project. For instance, if the Programme covered 20% of the event, the remaining 80% constitutes the leveraged funds. Importantly, this type of leveraged funds has to be distinguished from the funds mobilized by the Programme.
	Capacity Assessment Score	It is recommended to move the Indicator 3 at the programme level (Capacity Assessment Score) to the national level.

Output 3: Climate Risk Management Project in Kyrgyzstan

Current Indicators	***Proposed Adjustments***	***Comments***
Indicator1: Vulnerability Risk Assessment Score (at least 20% decrease over baseline score)		Similar to that for regional level
Indicator2: Area under CRM interventions) (# of ha -- at least 100% of demo sites)		Similar to that for regional level
Indicator3: Number of women engaged in training exercises (at least 30% of total number trained).		n/a
Indicator4: % of budget spent on gender issues (at least 15%)		Similar to that for regional level
	Missing indicator to be added	Indicator on leveraged funding to be added
	Capacity Assessment Score	It is recommended to move the Indicator 3 at the programme level (Capacity Assessment Score) to the national level.

Output 3: Climate Risk Management Project in Tajikistan

Current Indicators	***Proposed Adjustments***	***Comments***
Indicator1: # of hectares under CRM		Similar to that for regional level
Indicator2: Score as per Vulnerability Risk Assessment		Similar to that for regional level
Indicator3: Score as per UNDP Capacity Score Card		n/a
Indicator4: Systematic approaches to scaling–up, effective management planning in 17 protected areas developed and implemented		Similar to that for regional level
	Missing indicator to be added	Leveraged funding indicator to be added

Output 4: Climate Risk Management Project in Turkmenistan

Current Indicators	***Proposed Adjustments***	***Comments***
Indicator1: # of hectares under CRM interventions		Similar to that under the regional level

Indicator2: Score as per Vulnerability Risk Assessment		Similar to that for regional level
Indicator3: % of budget spent on gender issues		Similar to that for regional level
	Missing indicator to be added	Add an indicator on leveraged funding
	Capacity Assessment Score	It is recommended to move the Indicator 3 at the programme level (Capacity Assessment Score) to the national level.

Output 5: Climate Risk Management Project in Uzbekistan

Current Indicators	*Proposed Adjustments*	*Comments*
Indicator1: Area under CRM interventions (#ha)		Similar to that for regional level
Indicator2: Vulnerability Risk Assessment Score (score as per VRA)		Similar to that for regional level
Indicator3: Capacity Assessment Score (score as per CA)		n/a
Indicator4: % of budget spent on gender issues		Similar to that for regional level
	Missing indicator to be added	Leveraged funding indicator to be added

Rating: Programme Relevance and Design[2]

Category	*Rating*	*Comments*
Regional component	Satisfactory	Programme design is relevant to local and regional needs. The Programme would benefit from additional clarification of the regional focus and outcome level indicators. Special attention is recommended to pay to the capacity development component, ensuring a clear strategy on regional CD efforts.
National components	Satisfactory	Programme design is relevant to local needs and defines the broad range of issues to be tackled. The Programme would benefit from a clear focus at the national level and additional clarification of outcome level indicators.

CHAPTER 4: PROJECT RESULTS

5.1 Introduction

The official start of the Programme was in March 2010, however, the effective start-up of individual projects (as confirmed at the corresponding inception workshops) varied significantly in time:

[2] The explanation of rating is provided in Annex 1.

- Regional Project: February 2010
- National Project in Kazakhstan: Feb 2010
- National CRM Project in Kyrgyzstan: February 2011
- National CRM Project in Tajikistan: March 2011
- National CRM Project in Turkmenistan: March 2011
- National CRM Project in Uzbekistan: September 2011

This is explained by the number of issues, more specifically by the recruitment of the Regioanl Programme Coordinator (RPC) in early 2011 and the country Project Managers.
The Programme implementation has suffered an exceptional staff turn-over, which has required extraordinary efforts from the regional management team to ensure smooth hand-over and the continuity of institutional memory in each target country.

Thus, (i) in 2011 two Project Managers of National CRM Projects had to be replaced (PM in KG was not approved at CAP Meeting at the very end of the recruitment process, and PM in TJ left CA-CRM for another job), (ii) A candidate selected for the position of KMP Facilitator has turned down the offer, and there was a need to re-initiate the whole process of recruitment; (iii) The Communication officer supporting both Regional Project and National Project in Kazakhstan (50%-50%) left the Programme in September 2011 for UNDP CO in Kazakhstan.

In 2012, the CA-CRM Programme suffered again from the staff turnover in all national CRM Projects. Project managers were changed in four out of five national CRM Projects (except Uzbekistan), in some countries more than once (Tajikistan). In addition, staff members of UNDP COs responsible for CRM Projects were reassigned to other tasks (Kyrgyzstan, Tajikistan, Turkmenistan). This is why a special effort at the regional level was put into ensuring smooth transition of management responsibilities within the national CRM projects and proper involvement of relevant staff in UNDP County offices. Whenever possible, RPC participated personally in such hand over (Kyrgyzstan, Tajikistan) during his monitoring missions. Despite significant efforts put into supporting national projects in 2012, one of the national projects, notably: CRM Project in Turkmenistan, drastically suffered from the change in project management arrangements and reorganization of UNDP CO structure. For a number of months the project was dragging its feet due to the absence of a project manager (April-November 2012). The position was re-advertised a number of times. Finally, a new National Technical Advisor was recruited in late November 2012. As a result, a special mission was taken by RPC to meet the key officials and UNDP staff involved and support a newly appointed Project Manager in designing and initiation of a series of urgent actions, which would help to bring the project back to track by mid-2013.

Despite such turbulence periods in the Programme implementation, a number of activities were realized during the inception phase. These included but not limited to the preparation of the regional training on CRM in partnership with BCPR and WMO; technical support to KazHydromet on developing Green Economy Strategy of Kazakhstan; organization of the side event at the COP 16 in Cancun in cooperation with the Tajik delegation.

To ensure effective communication and PR within the Programme a Regional Project Implementation Facilitator was recruited in July 2012 for eight months. His contract was then extended till the end of 2013 to support the implementation of the Communication Strategy, operationalising (on the platform of Facebook so far) activities of MCN/NCN, preparation of knowledge products and awareness materials.

The original budget of the Programme (and the corresponding suite of tasks) was set at the level of US$ 12M, however, the funding from BCPR was secured only in the amount of USD

4,902,000[3]. This underlines the importance of an effective resource mobilization effort of the CA-CRM staff at the regional and national level. As of October 2013, the overall funding of CA-CRM nearly reached US$ 6.8M (see Annex 3). The amount of additional funding mobilized reached 38% of originally allocated or 16% of the overall envisaged Programme budget.

It has to be taken into consideration that given a very limited budget (about 60% less than was planned) and short time frame (less than two year period) the expectations towards the results produced within the Programme have to be adjusted accordingly and be more realistic. Therefore, the evaluation is based on the assessment of the current progress achieved as well as the potential that is available within the Programme.

5.2 Regional Level Implementation

The objectives of the regional component include:

- strengthening technical capacity to manage climate-related risks and opportunities;
- sharing knowledge on adjusting national development processes to fully incorporate climate-related risks and opportunities; and
- synthesizing and further developing knowledge on glacial melting in Central Asia (completed in 2011).

Activity Result 1. 1. Strengthening of technical capacity to manage climate change risks and opportunities in an integrated manner at multi-country level.

A. Inter-sectoral coordination mechanism (MCN + 5 NCNs) to be fully operational

1. By the time of the evaluation the inter-sectoral coordination mechanism namely, the Multi-Country Climate Network (MCN) and National Climate Networks (NCN, was not operational. The realization of this deliverable has been delayed as per ProDoc due to some reluctance on the part of national experts to be included in a network. It took additional efforts by the regional and national Programme staff to collect information on potential experts and fill in the templates developed by the regional project. Significant efforts regarding the NCN were required in Turkmenistan due to the political and administrative context. The experts were quite reluctant to be engaged in the Programme. Also in Kyrgyzstan significant efforts were encountered to identify the local institution that can facilitate and host NCN. As of October 2013, the MCN/NCNs have been digitized, however, these are not yet available as an on-line resource database. Even though the network of experts is being maintained through the existing platforms, i.e. Teamworks, Facebook, LinkedIn, it can only serve its purpose as a regional expert roster when it is fully integrated into the Knowledge Management Platform (KMP). There are delays in launching the KMP.
2. Programme has created forums for experts to discuss the issue of glacier degradation in Central Asia, where the outcomes much exceed the expected impact. Two international conferences Mountain-Hazards 2011 and Mountain-Hazards 2013 (www.moutainhazards2013.com) were organized within the Programme and co-sponsored by international development and national governmental and parliamentary organizations. This has grown to a well recognized internationally event. In 2013 over 150 participants from 22 countries participated in the forum. CA-CRM supported about 35 participants from Central Asian and Himalayan countries. This is a significant result achieved within the Programme.

[3] Includes only confirmed and in-cash resources, including BCPR $4,000,000, Finland $ 202,000, Regional TRAC $500,000, CO Uzbekistan $ 200,000

B. Six Assessments (Regional CRA and 5 National CRPs) accepted by key government stakeholders in CA countries

The realization of this deliverable cannot be considered satisfactory. It should be noted that the regional Programme Document was too ambitious in terms of timing and the resources required for the development of the CRA methodology and the realization of national assessments. When initiated in 2011, it was clear that there is not one methodology available to assess climate risks at national and regional levels. Therefore, in consultation with Regional Technical Advisors in Bratislava (DRR and Climate Change Adaptation), it has been agreed that special efforts will be put into defining disaster and climate risk assessment approaches.

To this end, a separate project was suggested with the financial support of CDKN. While the proposed draft methodology offers interesting and potentially useful ideas for climate risk assessment, it also has in the opinion of the evaluator significant conceptual and factual flaws that require special attention. A more detailed overview of the proposed draft methodology is provided in Annex 6.

Another document titles 'Kyrgyzstan Climate Risk Profile' was placed at the CDKN website. As it is mentioned in the document *'Funding for the Profile was provided to CAMP Alatoo by the Climate and Development Knowledge Network (CDKN) with other support from UNDP Central Asia Climate Risk Management Program'*. After the critical letters from various stakeholders, the third document were placed on the same website with exactly the same content but different title 'Testing of Climate Risk Assessment Methodology in Kyrgyzstan'. Surprisingly enough the latter mention that *'During the work on the profile the team used a baseline National Climate Risk Profile developed by the UNDP Climate Risk Management Project in Kyrgyzstan with support of a team of local experts'*. This all made issues very confusing for the audience to understand what was specifically developed under CDKN project and what under the CRM Programme. But most importantly, it is confusing having two documents with the same content but different titles. All three reports are available through *http://cdkn.org/wp-content/uploads/2013/08/Kyrgyzstan-Climate-Risk-Profile-Report.pdf; http://cdkn.org/wp-content/uploads/2013/08/Climate-Risk-Profile-Fin-clear.pdf; http://cdkn.org/wp-content/uploads/2013/08/Climate-Risk-Assessment-Guide.pdf.*

The importance of this element of the Programme is paramount. An effective methodology is necessary to guide the development of country climate risk profiles and inform the activities aimed at addressing country-specific climate risks. The degree of applicability of this methodology will largely determine the level of success of the Programme realization. Therefore, it is strongly recommended to launch a new round of review of the methodology proposed, finalize it with active engagement of both HydroMets and Ministries of Emergency Situations of the CA countries, and carry out baseline studies in the target countries before the end of 2014.

C. 40% of recommendations provided by the project accepted by national planning authorities

Along the Programme implementation a number of policy-level impacts have been registered. Thus, the efforts of CRM informed the Climate Chance Adaptation strategy in Turkmenistan and Kyrgyzstan, the Strategy on Green Economy in Kazakhstan, the Water Code in Uzbekistan, the Forest and Land Use Codes in Tajikistan with provisions of CRM and agro-forestry in particular. In addition, in all countries an inventory of legislation has been carried out, mandates of the key agencies analyzed. Recommendations have been prepared for improvement. The significant impact of the Programme at the policy level in all target countries is obvious already at this stage of its implementation. It is also important to consider not only the percentage of the proposed recommendations (how the percentage can be calculated especially with respect to the regional component of the programme?) but the impact they potentially can produce to strengthen the institutional capacities within each

country. From this perspective, within a relatively short timeframe the Programme has reached significant systemic changes the impact of which yet to be seen.

This indicator has more national focus and would be recommended to use for the national projects rather than for the regional component.

D. 100% of key stakeholders/institutions with regional mandates trained in CRM by the project

Much attention has been devoted in the Programme to the capacity development of the national and regional stakeholders with respect to CRM and related issues. For this purpose, a series of regional training events (nine in total) were organized or coordinated by the Programme. An overview of the regional training events is provided in Annex 7. Importantly, the Programme managed to organize some of the training events in partnership with other organizations/programmes, thereby optimizing the resource utilization as well as bringing in a broad range of useful expertise from other organizations.

The regional management team has developed a finely tuned concept for capacity needs assessment (using UNDP score cards). By the time of evaluation this activity was implemented in all the target countries yet it was also noticed that capacity development efforts were not fully informed by the results of the assessment. Thus, in some cases the Project Managers were simply not informed about the availability of such score cards (given the fact that many of them were replaced during the implementation of the Programme) or their applicability. It can be concluded that the CD scorecards were either too cumbersome to implement or not sufficiently informative to support the Programme realization. This does not however, hinder much the realization of capacity development events since the thematic focus is evolving along the dynamic needs of the key stakeholders. In the opinion of the evaluator, the Programme would benefit from a more targeted capacity development strategy for both individual and institutional levels (like it was done in Uzbekistan). It is recommended to develop a CD strategy for each country of operation and use it to guide the CRM Programme implementation as well as resource mobilization efforts to attract relevant donors.

Also the large part of the regional events were designed and implemented for the Programme staff. Without arguing the importance of such a focus, it is also strongly recommended to intensify CD efforts for the Programme partners. The CD efforts may be focused on a broad range of issues related to CRM, however, to sharpen the focus and ensure effective utilization of limited resources it is recommended to define a CD strategy to guide the process.

The Programme would benefit from revising this indicator. In fact, not only the stakeholders with regional mandates but also those with clearly national focus are engaged in the regional CD activities. This is fully justified and therefore the revision of the indicator would allow better capturing the results of the Programme.

Activity Result 1.2. Knowledge of how to adjust national development process to fully incorporate climate change risks and opportunities at national, multi-country and global levels.

A. 100 visitors a month take part in e-discussions, while thematic and information sections of KMP are updated weekly

This indicator is not achieved yet despite the fact that the programme team was supported with the Regional Project Implementation Facilitator whose primary focus is to ensure communication and PR. There have been some delays in this task due to an awaited decision on how to sustain the KMP in future. Database development was delayed because of the data collection exercise, which took significantly longer than anticipated. In 2013, however, a domain name (www.ca-crm.info) was registered, the necessary software was installed on RPIF's PC, the Content Management System was up-dated, content for KMP was collected and uploading was in the final stage at the time of the evaluation. A hosting agreement has been concluded and paid for by UNDP KZ with the company: art-media.kz. This implies that the portal is expected to be fully functional by the end of the year. It is urgent to go life with the KMP.

In parallel, to compensate for the absence of the KMP portal and to maximize the use of social media, the programme has established a CA-CRM Facebook page, which has already attracted strong interest among the target audience. Thus, by the beginning of October 2013, the number of CA-CRM Facebook likes had increased by 42% to reach 293 followers. The total reach amounts to more than 736,000 people. UNDP CA-CRM Teamworks' page together with national CRM pages has also been up-dated regularly.

To address underlying challenges with KMP the Programme would benefit from a clearly defined concept of 'knowledge management' within CRM Programme: what does it imply and how is should be organized.

B. **100% lessons collected by 5 national projects (based on progress reports) registered, links to lessons from other interventions provided**

The Programme made a step forward to ensure that its lessons learned will be shared with a larger community of expert. An agreement was reached with WOCAT, an established global network of Soil and Water Conservation (SWC) specialists, dedicated to sustainable land management. Thus, the format of lessons learned proposed under the Programme is aligned with that of the WOCAT which enables successful uploading of the Programme's lessons learned into the WOCAT database and much broader information outreach of CA-CRM beyond the Central Asian region.

Lessons learned are expected to be registered by the national CRM projects to be made available on KMP and other platforms (e.g. WOCAT) by the end of the Programme. However, so far, no lessons learned were shared with the broader community. There are only lessons learned documented from Tajikistan so far. It might be very well the case that there are no additional lessons to learn from. However, given the fairly unique nature of the Programme as well as the fact that lessons learned are identified in each project report, it might be useful to consider sharing those lessons with a broader community through for instance WOCAT. It is recommended to intensify efforts to meet this indicator. Also today these lessons could be used to support the design and implementation of different initiatives within the Programme and should be available on an on-going basis. It is strongly recommended to intensify efforts to register and most importantly to learn from the lessons across various interventions and during various phases of those interventions within the CRM Programme. This can be a process of social learning that would benefit the realization of the Programme.

Activity Result 1.3. Evidence-based analysis on glacial melting in Central Asia conducted and disseminated to decision-makers.

A. **Over 100 people involved in knowledge sharing sessions and fieldwork (expeditions) related to glaciers/permafrost in all relevant 4 CA countries (except Turkmenistan)**

The Programme has organized two glaciological expeditions to Pamir and organizing two high level conferences: Moutainhazards-2011 and Moutainhazards-2013.

Over the course of the Programme implementation two successful events have been organized at regional level addressing glacial degradation in Central Asia. Altogether, over 300 people took part in specialist knowledge sharing sessions (Moutainhazards-2011, Parallel events at the Ministerial Conference in Astana, Brainstorming sessions on CRA/NCRPs, Working groups at the Inception workshops, as well as other events). It may be concluded from this that the Programme has generated significant resonance and raised awareness on glaciers/permafrost in the region.[4] It is possible to conclude that the outreach of the efforts related to this activity result has been much broader given the high quality of the international conferences organized: Moutainhazards-2011 and Moutainhazards-2013.

B. At least 5 knowledge products provided in an accessible form by the end of 2011

The evaluator considered a number of knowledge products developed within the Programme by the time of the evaluation. Given the slow start up of the Programme it is hardly feasible to expect full realization of its objective. To day, only three knowledge products can be considered developed with the support of the Programme.

1. Central Asia Glaciers' Study - Current state of knowledge and recommendations. Literature and data review, gaps' identification and recommendations for future work prepared by UNEP/DEWA/GRID-Europe: Bruno Chatenoux Global Change and Vulnerability Unit, UNEP
2. Brochure "The Glaciers of Central Asia: A Disappearing Resource", ENVSEC side: www.envsec.org/publications/brochure_the_glaciers_of_central_asia_dec_2011.pdf
   The role of the CA-CRM Programme in developing the booklet is not acknowledged: 'This booklet, prepared by the United Nations Development Programme (UNDP) Bratislava Regional Centre, Slovak Republic, is based on a review of the scientific literature undertaken by UNEP/DEWA/GRID-Europe and national consultants of Central Asia, with the support of the Government of Finland through Environment and Security Initiative (ENVSEC). It examines the current trends in scientific thinking and knowledge about glacier degradation in Central Asia; the possible reasons and repercussions thereof; the discrepancies or gaps in data and understanding; and some next steps for addressing these issues'.
3. Final report from the CA-CRM-funded first International Expedition to Pamir, August 12, 2011

   The quick acquaintance with the report of the expedition allows concluding that the objectives of the expedition were reached only partly simply because they were too ambitious to be achieved. The objective of the expenditure of 2011 was "… to define the current and future changes in the climate, assessment of the glaciers' state for the development of the practical recommendations for sustainable socio-economic development of the mountainous regions of Tajikistan ….. as well as to bring the attention of the international community to the issues of glacial degradation…." (p.3 of the report). Rather surprisingly, despite the defined objectives of the expenditure, glaciers were not mentioned as the object of the study and the methodology did not include glaciological work. From the report it is difficult to understand which results were reached by the expedition itself and which results were adopted from the literature sources. The report creates impression of the poor quality control system for publications in the Programme.

[4] The evaluation was not intended to address the level of knowledge increase, as this would require a different, very specific type of survey. Instead, given the limited timeframe for the evaluation, the intention was to provide the most plausible conclusions based on adductive reasoning.

The Programme implementation has also been covered by UN and different regional and national media publications. CA-CRM is presented on Facebook (user: Central Asian Regional Programme on Climate Risk Management). Over five articles have been written presenting CRM at international/regional and national levels, some audio/video recordings were made. This also allows bringing CRM under the spotlight at the national and regional levels.

An overview of the knowledge products and media publications is provided in Annex 8.

Activity Result 1.4. Project efficiently and effectively coordinated and managed.

A. At least 90% project delivery

In 2010: TRAC funding – 101%; Finland funding – 100% of the first installment; BCPR funding – 36.3%
In 2011: Delivery of the entire CA-CRM – 86.6 %, delivery of the Regional
Project – 87.2%. Delays were caused by the fact that the working methodology related to the Regional Climate Risk Assessment and National Climate Risk Profiles has not been clarified by the Regional Technical Advisors (BRC).
In 2012: Actual delivery is 80.6%. However, this does not account for additional funds spent on project activities in a parallel project (CDKN funded) and cost sharing with other projects. If these two aspects are accounted for, then the actual budget spent in 2012 will be significantly higher.
In 2013: Expected at the level of 90%[5].

B. 15% of BCPR budget contribution spent on gender

Despite the strict requirement by BCPR as a CA-CRM donor that 15% of the budget be allocated to gender-specific activities, there was no clear methodology provided how to estimate this percentage. To address this shortcoming, special effort was put into developing a Gender Note for further use in regional and national CA-CRM projects in 2011. The proposed approach is an attempt to estimate gender-related cost estimation but most importantly it provides some guidance on how to mainstream gender considerations as part of the Programme implementation.

Estimation of gender-related costs is a useful indicator but is not enough to ensure that the CRM Programme is gender sensitive and take into consideration strategic and practical needs of girls and boys, men and women. In that sense, it would be reasonable to think of introducing a checklist (or similar) to guide the design and implementation of gender-sensitive initiatives within the CRM Programme. There are already developed examples of such checklists that can be used, perhaps with little modification.

In 2012: gender-related expenses accounted for 30.2% of the Programme budget based on the developed methodology.

In order to conclude about whether the Programme was effectively and efficiently managed it is important to consider additional aspects of it performance next to the two indicators identified in the ProDoc. These include among others the level of quality control, the level of synergy created within various components of the Programme. From this perspective, much to be improved, as it will be further elaborated in the report.

Rating: Effectiveness and Efficiency of the Programme Regional Component

Category	*Rating*	*Comments*

[5] The lower delivery of the Regional Project is related to the requirements of UNDP HR to keep certain amount in the budget for the maximum entitlements of RPC as an international staff member. However, since RPC does not use all the entitlements, the entire amount cannot be spent.

Total rating	*Satisfactory*	***Regional component is expected to produce the most of the outcomes, but still need additional efforts to strengthen knowledge management within the Programme.***
Activity Result 1. 1. Strengthening of technical capacity to manage climate change risks and opportunities in an integrated manner at multi-country level.	Satisfactory	Efforts were made within the regional component of the Programme to strengthen technical capacities. However, some key deliverables, namely climate risk assessment methodology did not reach its objectives.
Activity Result 1.2. Knowledge of how to adjust national development process to fully incorporate climate change risks and opportunities at national, multi-country and global levels.	Marginally Satisfactory	Efforts were made to ensure that the CA-CRM Facebook site is active and has growing number of followers. However, the KMP is yet to be finalized and made operational within the Programme.
Activity Result 1.3. Evidence-based analysis on glacial melting in Central Asia conducted and disseminated to decision-makers.	Satisfactory	The Programme has managed to organize two successful conferences: Mountain Hazard 2011 and Mountain Hazard 2013 where issues of glacial degradation in Central Asia were discussed along with issues on prevention and mitigation of extreme weather events and natural hazards in mountain areas, including lake outbursts, earthquakes, landslides, landslips, and floods, maintaining biodiversity, ensuring efficient use of water resources, and reinforcing sustainable development, co-operation between the countries of Central Asia, Afghanistan and Himalayan water system. Moreover, resolution of the last Mountain Hazard 2013 conference consisting of seven items mentioned degradation of glaciers once only in the item related to significance of maintaining natural mountain eco-systems. Conferences performs as a platform for dialogues among academia, policy-makers and practitioners on glacial degradation in Central Asia. Two expeditions were organized. Yet, the objective of providing evidence-based analysis on glacial melting in Central Asia is too ambitious to be reached within the Programme.
Activity Result 1.4. Project efficiently and effectively coordinated and managed.	Marginally Satisfactory	Significant efforts have been made to ensure effective and efficient realization of the Programme. However, the Programme overall performance requires additional efforts to ensure adequate coordination and management.

5.2 National Level Implementation

National CRM Project in Kazakhstan

Overview

The project intends to increase the resilience of rural communities in Almaty Oblast to the projected impact of climate change, with a particular focus on water efficiency in agriculture and climate-related disaster management, as well as address the main institutional capacity, policy and financial barriers preventing systematic CRM in Kazakhstan.

During the project implementation another region has been added by the Programme team, namely, the Kyzylorda *oblasts* that experience significant water shortage due to the negative impact of climate change. Significant achievement has been made in resource mobilization. A new project on «Improving the Climate Resilience of Kazakhstan Wheat and Central Asian Food» was initiated. The first ever project funded by USAID and implemented by UNDP Kazakstan with the total budget of US$ 1.102.628. Even though this project is implemented through UNDP Kazakhstan, it has a big part of regional activities.

The national project Board was created in early 2012.The project main partners are Ministry of Environmental Protection, KazHydromet, KazAgroInnovation, local authorities. The main project activities are crosscutting with the CRM project and focused on strengthening the KazHydromet, Space Research Institute and KazAgroInnovation capacity in the improvement of mid-term and long-term forecasting. Demonstration of measures on adaptation and reduction of agriculture dependency on unfavorable climate impact also in line with the CRM Programme priorities and allows for creating synergy across the initiatives.

Additional resources have been mobilized from various sources and channeled to climate change adaptation initiatives mainly in the field of land and water resources management.

Budget per year, Kazakhstan project

Year	*Budget*	*Delivery in %*
2010	US$ 86,000	76
2011	US$ 160,000	96
2012	US$ 160,000	99
2013	US$ 160,000	89

Activity Result 2.1: Enabling environment to manage climate change risks improved

The distinguishing feature of the country component in Kazakhstan is that the project is engaged in multiple initiatives with other partners. Such a situations has ambiguous consequences for the project in Kazakhstan. On one hand, the project visibility is significantly reduced. From the interviews with some of the stakeholders it has become obvious that not all of them distinguish the CA-CRM Programme from other climate-related initiatives in the country. On the other hand, the project has been very selective in supporting the activities of other partners when there was a strong need for it and where those activities were directly related to the issues of climate risk management and climate change adaptation. From this perspective, the country component in Kazakhstan, to a certain extent, serves as a 'seed project' to support small initiatives that could potentially generate ripple effect across different sectors and thus generate the necessary interest in climate risk management in Kazakhstan.

The project has provided a valuable contribution towards the development of an enabling environment for the promotion of 'green' principles and strategies in Kazakhstan. Thus, in 2012 the project provided significant support to the development of the Global Energy-

Ecological Strategy as well as the country flagship initiative, the Green Bridge Partnership project included in the consolidated document "The Future We Want" (http://daccess-dds-ny.un.org/doc/UNDOC/GEN/N12/381/64/PDF/N1238164.pdf?OpenElement). In 2013, the programme supported the development of the Green Economy Strategy for Kazakhstan, adopted by the President of Kazakhstan on May 30, 2013.

The project provides some support to KazHydromet in terms of technical assistance and equipment. Given significant investments of the WB thought its Central Asia Hydrometeorology Modernization Project (CAHMP) http://www.worldbank.org/projects/P120788/central-asia-hydrometeorology-modernization-project?lang=en it is recommended to harmonize the relevant project efforts with those of the WB.

In general, through efficient utilization of resources of both CRM and 'wheat' projects, it was possible to engage specialists from US to provide technical assistance to KazHydromet regarding improving the quality of short-term forecasts, developing forecasting models, improving farmer's access to the forecast data, and introduction of space monitoring for the harvesting of agricultural crops.

Activity Result 2.2: CRM approach demonstrated in Almaty region through improved water efficiency in agriculture and management of climate-induced disasters.

The realization of this activity result is largely shown by the support to the project proposals submitted for GEF SGP financing. Eight projects were supported in Almaty oblast in 2012 and seven in Kyzyrardin in 2013. The purpose is to demonstrate effective CRM measures for the purpose of evidence-based advocacy and achieving buy-in, as well as fostering the mobilization of funds for up scaling. The effectiveness of these projects and the potential for the scaling up are promising however remain to be seen.

A significant achievement has been made by the 'Improving the Climate Resilience of Kazakhstan Wheat and Central Asian Food' Project developed jointly with USAID funded (US$ 1.102.628) by UNSAID. The main project activities intersect with the CRM Project and focus on strengthening the KazHydromet and KazAgroInnovation capacity in the improvement of mid and long-term forecasting. Demonstrating adaptation measures and reducing agricultural dependency further to unfavorable climate impact is also in line with the CRM Programme priorities and enables synergy to be created between the initiatives.

Activity Result 2.3: Key stakeholders made aware of CRM approaches and lessons learned from the project.

Regular communication and PR events are organized with the aim of raising public awareness on climate change and climate-induced disaster risks. The project document is designed to support improving a culture of data collection, analysis and learning on the subject of climate change, and facilitate the capturing and dissemination of this learning. This can best be achieved with targeted communication/information campaigns aimed at the relevant stakeholders (KazHydromet, Ministry of Emergency Situations, Ministry of Environment, etc.). To this end, a successful initiative has been established between the UzHydromet and KazHydromet to exchange information on drought early warning and its use to benefit the farming community.

Several interesting initiatives have been started within the project and have already proved to be models for potential scale up not only within the CRM project but also far beyond it. Thus, a project has designed and supported the organization of annual meetings between the local authorities of the Almaty Oblast (Balkash-Alakol River Basin inspection) and local water

users. This has become a successful platform for joint problem solving regarding rational use of water resources in the Almaty region.

Also, within the project an annual regional business forum «KazGrain» has been initiated and further supported by the Government of Kazakhstan. With the engagement of the Prime-Minister of Kazakhstan, big business, warmers, and policy-makers, the forum tends to address the actual problems related to adaptation of agricultural sector to the changing climate, desertification, and suchlike.

There is a growing attention to the public awareness on CRM and CRM-related issues within the project. Thus, the project initiated Central Asian youth projects competition «Sight in EXPO 2017», promoting out-of-box thinking and attention to adaptation measures among youth is growing into the regional one with the participation of Uzbekistan and potentially Kyrgyzstan. There is already interest towards this initiative by GEF that has committed to finance piloting of winning proposals.

It is also important to ensure that the project in Kazakhstan documents its lessons learned along the project realization. In fact, lots of learning and exchange is happening within the project, between the project and other local initiatives, as well as within the project itself. It is important to ensure that the main lessons are properly documented and shared with the relevant partners.

Project Management Arrangements, Sustainability, Synergy, and Replication

The management of the country component has been handled with an attention to details and with the direct engagement of the Country Manager in each of the events and initiatives/projects supported by the country component. This has ensured a satisfactory level of effectiveness and efficiency in the implementation. Importantly, regular efforts were demonstrated to harmonize the implementation of the CRM project in Kazakhstan with the on-going projects on disaster risk management reaching a high level of integrity within the UNDP portfolio. Thus, several events within the CRM were implemented in close cooperation with the DIPECHO VI and later DIPECHO VII projects. Currently attempts are made to harmonize efforts with the Strengthening National Capacity for Risk Assessment, Prevention and Response to Natural Disasters project co-funded by UNDP and the Government of Kazakhstan.

There is a strong support from UNDP CO to the project implementation as well as the necessary level of flexibility to allow evolving new ideas and initiatives within the project. Yet, it is obvious that there is a need for stronger technical support to the project team to guide their efforts towards combined climate and disaster risk management, with the focus on ‘risk management’. Here where the role of the Programme Coordinator and the practice leaders should be more articulated, specifically with respect to CRM capacity development in Kazakhstan.

There is a sense of ownership over the results of the project, which allows considering options to transfer already developed models and approached into the hands of local partners and continue looking for new innovative solutions. The project should define the ‘exit strategy’ for various interventions and how to hand them over to its local partners while continuing its implementation.

Intensive efforts to mainstream CRM into national policy and regulatory framework as well as long-term engagement with the USAID project on ‘Improving the Climate Resilience of Kazakhstan Wheat and Central Asian Food’ provide a solid basis to ensure sustainability of the expected results. Water scarcity in agriculture is inevitably linked with the issues of land degradation and desertification. Over two thirds of the territory of Kazakhstan is prone to desertification. The Government of Kazakhstan and UNDP have reached an agreement to

establish a Central Asian regional center for countering desertification. Therefore, it is recommended to consider establishing partnership with the center and linking it with the Drought Centre in Uzbekistan as well as with the national hydromets in the partner countries.

Rating: Project in Kazakhstan

Category	***Rating***	***Comments***
Overall rating:	***Satisfactory***	***The project is expected to produce most of the expected outcomes contributing to the increased resilience of agricultural sector to climate change in Kazakhstan.***
Activity Result 2.1: Enabling environment to manage climate change risks improved	Satisfactory	Project has created a number of platforms as mechanisms to mobilize efforts and to further strengthen enabling environment for effective CRM in Kazakhstan.
Activity Result 2.2: CRM approach demonstrated in Almaty region through improved water efficiency in agriculture and management of climate-induced disasters.	Highly Satisfactory	There is a sharp focus of the project on water efficiency in agriculture. The project managed to achieve significant resource mobilization and thereby multiply the expected outcomes in terms of effective management of climate risks in agriculture.
Activity Result 2.3: Key stakeholders made aware of CRM approaches and lessons learned from the project.	Satisfactory	The project invested significant efforts in increasing awareness of CRM approaches among key stakeholders. More attention should be paid to documentation of lessons learned within the project.
Project Management Arrangements	Satisfactory	The management of the project is well balanced vis-à-vis resources allocated for its implementation. Effective resource mobilization has been demonstrated. There is a need for technical assistance from the Programme Regional Coordinator and the practice leaders to the project realization.
Sustainability, Synergy, and Replication	Satisfactory	The project has created strong preconditions for effective replication. The policy level influence of the project suggests long-term impact on the chosen sector and beyond.

National CRM Project in Kyrgyzstan

Overview

Objectives of the country component: Increased resilience of rural communities through improved pasture management and Climate Risk Management in Kyrgyzstan's Suusamyr Valley. Activities are expected to involve strengthening of all aspects of the enabling environment, notably: the institutional governance structure, policies/strategies and legislation, as well as sustainable financial mechanisms and economic instruments. A number of specific adaptation/climate risk management measures are expected to be demonstrated on a smaller scale in the Suusamyr Valley of Kyrgyzstan and suitable recommendations for up scaling are envisaged as part of the country component. The Programme primary partners are: Ministry of Emergency Situation, Ministry of Agriculture and Melioration, State Agency on Environment Protection and Forestry.

The project was launched in the beginning of 2011 with the inception workshop conducted on March 1, 2011. However, the project manager was assigned to his duties on August 1, 2011 only. In early 2012, the project manager resigned, and had to be replaced.

The project has demonstrated a mixture of positive developments and some significant challenged that were not possible to fully overcome with the project national level capacities.

Budget per year, Kyrgyzstan project

Year	*Budget*	*Delivery in %*
2010	n/a	n/a
2011	US$ 100,000	87,2
2012	US$ 159,718	46.7
2013	US$ 200,282	90

Activity Result 3.1: Enabling environment created for integration of CRM at systemic, institutional and individual levels.

The project provided major support the Government of Kyrgyzstan in mainstreaming the CRM component into "Priority directions for Kyrgyz Republic towards climate change adaptation till 2017" document that serves as the national strategy towards climate change adaption. The document has been approved by the Government of Kyrgyzstan on 2 October 2013. This is a serious achievement of the project in Kyrgyzstan. On the basis of this strategy four Ministries were commissioned to develop their relevant adaptation strategies: Ministry of Emergency Situations, Ministry of Agriculture, Ministry of Energy, and State Agency on Environment Protection and Forestry. The project committed to continue supporting these stakeholders.

One of the targets of the country components was to upgrade the existing multi-sector institutional mechanism to include CRM objectives and priorities. For this purpose, the Coordination Commission on Climate Change Issues (CCCI) first meeting was organized on 13 February 2013. The CCCI was an inter-agency mechanism that existed de jure. The CRM project in Kyrgyzstan and UNDP Environment Programme supported the organization of the first meeting of CCCI bringing this mechanism to a de facto platform. Unfortunately, no references are made to CRM Programme at the official site of the State Agency of Environment Protection: **http://www.nature.kg** therefore it is hard to make conclusions about the role of CRM Programme in organizing the first and the next three meetings of the CCCI held in 2013.

Activity Result 3.2: Climate-resilient pasture management demonstrated in the Suusamyr Valley

Lots of efforts were put by the project to establish one pasture management committee (PMC) in Suusamyr Valley. Next to that, the already existing pasture management committees were willing to pilot a climate risk management approach, as emphasized by the project manager. However, there is no evidence found on what 'climate risk management approach' implies for pasture management in Suusamyr Valley. There is a need for stronger guidance and technical assistance of the project in Kyrgyzstan and better guidance to the project manager on how climate risk management approach can be implemented in pasture management in Kyrgyzstan`s conditions.

Building upon the results of GEF/UNDP Suusamyr Pasture Project, CRM project supported the PMCs to develop GIS layers for the E-pasture communities of Suusamyr. This activity is expected to inform PMCs about the CRM project. No evidence found on how the availability of GIS layers ensured increased CRM awareness of the pasture community of Suusamyr.

Also under this activity result there was an attempt to assess the climate risks of Suusamyr Valley. The popular summary version of the study report developed by CRM team in Kyrgyzstan and distributed among national partners has raised a round of inquiries from the local experts (see Annex 10). Analyzing this publication vis-à-vis the comments provided by the local experts it is strongly recommended to unfile this document.

Based on the questioned recommendations of the climate risk assessment of Suusamir Valley a number of activities were implemented to mitigate the climate risk:

- One of the activities is the provision of simple equipment and one training course to the local voluntary rescue team. This activity was implemented in close partnership with the UNDP DRM Programme. However important this activity may be for the local community, it is rather arguable whether this investment can be justified under the CRM project. The logic was to support a rescue team that would response to climate-induced disasters. However, following this logic all efforts on disaster risk management related to natural hazards (excluding earthquake hazard) can be attributed to climate risk management project. Provision of equipment and training to the local voluntary rescue team is undoubtedly an important activity. However, a one-off exercise provides little added value unless there is a systematic investment in developing capacities of local response forces. Yet, this is not the focus of the CRM project. Therefore, the project in Kyrgyzstan would benefit from a stronger guidance from the RPC on the project realization towards CRM objectives.
- About 35ha were planted by a sort of barley that is adaptive to the reduced precipitation as envisaged due to the changing climate. The reason is to avoid the risk of mass cattle mortality caused by a lack of forage in sprint 2011 - 2012. As a result the local farmers yield 25 centner from each ha versus 20 centner as it was expected. Due to the fact that mass cattle mortality in spring 2011-2012 was caused not only by the lack of forage, but also by low temperatures and snowfalls which covered accessible pastures with thick snow layer, the cost-effectiveness of such measures raise some questions. Most importantly, as it is indicated in the letter of Hydromet to UN Resident Representative in Kyrgyzstan, Mr. Avanesov, dated 09.10.2013, it is unclear which data sources were used to arrive to such conclusions on changing climate and weather patterns in Suusamyr Valley. Only then it would be possible to conclude about the quality of the recommendations and the follow up mitigation measures. However, as a demo this is a useful activity to demonstrate that adaptive sorts of barley can be potentially used in case of reduced precipitation.
- With the local authorities in Suusamyr the project team has agreed on the methods for burying animal carcasses and help them to construct two holes to bury animal disposals. This is explained by the raising weather temperature and the growing risk of animal sickness.
- Also an attempt was made by the project to strengthen agro-meteorological capacities of the only meteorological station Hydromet that operates in the Suusamyr valley. The joint field mission was organized and the list of recommendations on capacity development was prepared. It should be noted that the Hydromet station in Suusamyr valley is a meteorological station with its own program of hydro-meteorological monitoring. In order to introduce agro-meteorological program for a meteorological station, it is required to change the status of the meteorological station to agro-meteorological station. This in turn requires a complex procedure from the Hydromet. The project has to make accounts for this while aiming to strengthen the agro-meteorological capacities of the station. It is recommended to closely cooperate with the Hydromet on this matter.
- A successful study tour of local government representatives to Vietnam (jointly with CAREC) was organized on Payment for Ecosystem Services (PES).
- The project in Kyrgyzstan has explored the potential index insurance and/or carbon financing schemes for sustainable pastures management. Towards this end, the project recruited two lawyers for reviewing the legislation related to animal breeding

and crop production sectors in climate change context and one economist for providing the economic expertise for main findings elaborated by the two lawyers. It is unclear how crop production and animal breeding would contribute to sustainable pasture management, however, the outputs of this work were the recommendations for amending the current legislation. These recommendations have gone through a cost-benefit and economic effectiveness assessment. Therefore, projects hold the round table with key-decision makers on presenting the main findings achieved by group of experts (presentations are available on http://www.caresd.net/site.html?en=0&id=25727).

The realization of this component requires extra attention of the Regional Programme Coordinator.

Activity Result 3.3: Knowledge Management and Lessons Learned for CRM in Kyrgyzstan

One of the main constituent components of this activity result is the development of the National Climate Risk Profile (NCRP). Under the regional component of the Programme additional resources were mobilized from the CDKN to develop the climate risk assessment methodology and to pilot its implementation in Kyrgyzstan. The local NGO Camp Alatoo was contracted to develop the methodology and to pilot it. The Regional Programme Coordinator, an international expert, and a group of local experts were all engaged in the work. The publications made available on the CDKN website and developed within the Programme have received ambiguous resonance among local expert community (see Annex 10). The issues raised, specifically those from KyrgyzHydromet, were about the quality of the final products as well as about the level of consultations with the local specialists. In response, the PRC had to organize an extra mission to Kyrgyzstan to manage the situation and meet with the KyrgyzHydromet and local experts. Also, the RPC requested to remove the initial publication on NCRP from the CDKN website and replace it with the new document (new title but the same content). Also additional meeting was held with the representatives of the KyrgyzHydromet. These were necessary steps to be undertaken by the RPC to mitigate the situation. Close review of the documents published within the CRM project in Kyrgyzstan and placed on the CDKN website it is possible to conclude that these documents require serious revision.

The project has undertaken following awareness raising/educational activities in Kyrgyzstan:

- Children competition: http://www.caresd.net/site.html?en=0&id=25944
- Training module on agriculture sector and CRM is under preparation for designated middle level decision makers under CCCC.
- Two eco-journalists clubs were conducted and articles on CRM were issued in mass-media
- An information leaflet to describe CRM concept, project's goals and activities was published. In addition to that, project was building the national expert's network by supporting participation of the experts in national and regional workshops on Disaster Risk Reduction and Climate Risk Management.

It is also recommended to consider sharing lessons learned within the project beyond the confines of the project report.

Project Management Arrangements, Sustainability, Synergy, and Replication

According to the RPC the re-organisation of UNDP CO has negatively affected implementation of the CRM Project in Kyrgyzstan. Since there are no specially allocated AFA to this project, time of processing of all requests has increased significantly. This issue has been escalated to the attention of the senior management of UNDP CO because this put smooth implementation of project activities in danger of being too much delayed to be

successful. Currently there is an additional staff member recruited as Project Assistant to support day-to-day activities of the project office.

The relevance of some activities towards the project objectives has raised concerned among the key stakeholders. This situation requires careful consideration from the PRC. In the opinion of the evaluator, the project in Kyrgyzstan lacks adequate guidance and support from the site of the RPC. Stronger support of RPC would support avoiding the main risks of the project in Kyrgyzstan.

Efforts to mainstream CRM into the Climate Change Adaptation Strategy as well as efforts to investigate and develop models of innovative risk financing provide some basis for sustainable results of the Programme in Kyrgyzstan. However, it is too early for the project in Kyrgyzstan to consider any prerequisite for replication. Considerations for an exit strategy are not evident yet.

Rating: Project in Kyrgyzstan

Category	***Rating***	***Comments***
Overall rating:	***Marginally Satisfactory***	***The Programme at this stage seems to have capacities to achieve its main objectives. It is also important to ensure stronger engagement of the RPC and the CO to provide necessary support to Project Manager in challenges faced.***
Activity Result 3.1: Enabling environment created for integration of CRM at systemic, institutional and individual levels.	Marginally Satisfactory	Next to a number of useful activities within the Programme, the publication made public within the project has some issues to be addressed. The important lessons learned for the whole Programme is to ensure adequate quality control of the scientific/analytical publications within the CRM Programme.
Activity Result 3.2: Climate-resilient pasture management demonstrated in the Suusamyr Valley	Marginally Satisfactory	A set of important activities was carried out within the Programme. There is a strong need on better guidance from PRC on the realization of this activity result to ensure the correct focus and to produce the expected outcomes.
Activity Result 3.3: Knowledge Management and Lessons Learne for CRM in Kyrgyzstan	Marginally Unsatisfactory	The Programme efforts on knowledge dissemination are rather weak. There is a strong need for better guidance from PRC on the realization of this activity result.
Project Management Arrangements	Marginally Satisfactory	The project management has encountered strong impact of the re-organization of CO as well as the change of the Project Manager.
Sustainability, Synergy, and Replication	Marginally Unsatisfactory	Some adaptation measures implemented within the project provided basis for replication and potential sustainability.

National CRM Project in Tajikistan

Overview

Objectives of the country component: Increased resilience of rural mountain communities in foothills of the Gissar Mountains through agro–forestry and the management of climate-induced disaster risks. As a thematic focus, the CRM project in Tajikistan promotes the development of productive agro-forestry as a response to climate risk. This involves establishing models to support sustainable forest management, and encourage reforestation of previously deforested land in mountainous regions. The project explores the main links between agro-forestry and disaster risk reduction (land stabilization and river bank management), improved water management in agriculture (water rights, water conservation techniques), and livestock management (land access and grazing rights). It also supposed to incorporate links to biodiversity considerations, and the potential use of resilient indigenous cropping varieties. In geographic terms, while focusing primarily on national level capabilities, the project has targeted the foothills of the Gissar Mountains (Gissar valley region) as a pilot region for the implementation of CRM interventions. In geographic terms, the project covers four areas in the Gissar Mountains, i.e. Gissar, Shahrinav, Tursunzoda and Vahdat.

The project actively cooperates with the CRM Kazakhstan on climate-resilient wheat sector (CRW) project and as part of the third result of the CRW project, Tajikistan has mainstreamed a number of the activities in its annual work plan.

The project primary partner is the Forestry Committee under the Committee for Environmental Protection.

Budget per year, Tajikistan project

Year	*Budget*	*Delivery in %*
2010	n/a	n/a
2011	US$ 128, 245	?
2012	US$ 217,822	26.1
2013	US$?	Expected?

Activity Result 4.1: Improved enabling environment for CRM at systemic, institutional and individual levels

Significant efforts have been put into strengthening the legal and regulatory framework in Tajikistan regarding public and private pasturelands. As a result the Government of Tajikistan enacted a new Pastures Law on 19 March 2013. This is a significant achievement that will ensure the longer-term impact of the project. The law provides a legislative framework for the transition from unplanned and unregulated use of pasture resources to the implementation of a system that ensures sustainable use by pasture grazing associations and other legal entities. The law was developed through a series of 29 round tables directly broadcast by the local TV. Evidence shows that the work was done in close partnership with the representatives of local authorities, parliament, and international organizations working in this sector. A set of recommendations has also been developed for further strengthening of the regulatory framework in Tajikistan. In addition, successful best practices from Tajikistan were included in the UNDP Best-Practices collection paper in 2011.

Even though the capacity needs assessment was only conducted in 2013, much later than initially planned, the results of the study have already provided a sound basis for specialized training courses in the forestry and pasture sectors on joint forestry management and the principles of the pasture grazing associations. Twelve training course were organized with representatives of the Government of Tajikistan, the parliament of Tajikistan and the line

ministries and committees on the concept of joint forestry management, pasture grazing associations and other regulations related to the legislation on pasture use and the forest code.

It should be mentioned that Tajikistan is one of 11 countries/regions selected for funding through the Pilot Program for Climate Resilience (PPCR). In Tajikistan the World Bank Group (WB), Asian Development Bank (ADB) and the European Bank for Reconstruction and Development (EBRD) are implementing Multilateral Development Banks (MDB) for channelling PPCR funds, with WB serving as overall MDB coordinator. Within the programme a comprehensive study has been commissioned to identify and address capacity gaps. Therefore, it is recommended to harmonize efforts with WB and when possible joint efforts.

Under the project provisions have also been made to establish and equip a training center at the State Agency for Forestry and Hunting.

The project has commissioned an international consultant to conduct a gender analysis in relation to the project realization. The objective of the evaluation was to develop recommendations for pilot gender mainstreaming and its implementation under the UNDP Climate Risk Management Project in Tajikistan in accordance with UNDP corporate guidelines and requirements. The conducted analysis was narrowly focused only on the performance of the microloan funds where Disaster Risk Management Funds were established, leaving out the largest part of the project implementation scope. Given the fact that the targeted microloan funds were provided with the additional funding specifically to support female beneficiaries, the decision to commission such a study seems poorly justified and results less relevant.

Also the project has supported a public campaign “1 tree for 1 SMS” and now closely working with the Tajik Mobile companies to launch it in November 2013, an interesting and very promising initiative, the effect of the realization of which is yet to be seen.

Activity Result 4.2: Sustainably productive agro-forestry CRM tools, financing and implementation models demonstrated in the Gissar river basin

The establishment of pilot activities on agroforestry as a model to showcase the advanced technology of land resource management was being organized in partnership with Asian Development Bank. The preparation work has been finalized to plot the agroforestry demonstration sites in autumn 2013.

Links were established with the Disaster Risk Management Programme of UNDP Tajikistan. The project in Tajikistan partnered up with the microloan funds that support Disaster Risk Management Funds at the community level. This allows the project to mobilize additional resources and most importantly engage local communities and local authorities in climate and disaster risk response measures.

Activity Result 4.3: Knowledge on how to incorporate climate variability and change knowledge and risks into development processes at local, regional and national levels disseminated

Further to extensive meetings a set of 80 best community-based agro-forestry approaches have been identified mainstreamed into local planning systems. This exceeded the set target three times. Additional discussions with the local authorities led to a number of the best approaches being integrated into the local planning system. This is a project achievement that could have a long-term impact on sustainable land management in Tajikistan.

Another interesting novelty within the project is the mobile theatre that is going to be established with the aim to inform the targeted rural communities about climate change adaptation issues.

Activity Result 4.4: Scaling up of effective management planning in protected areas of Tajikistan implemented

The country component is largely based on the results of the GEF Biodiversity Gissar Project and the UNDP MCB CACILM Project, thus providing a solid basis for the next stage of initiatives to address climate risk in Tajikistan. The project established close cooperation with the committee for environmental protection, the state agency for forestry and hunting, the state agency for protected areas as well as the Central Asian Regional Environmental Centre in developing a format for management planning as well as financial planning tools for the effective management of protected areas in Tajikistan. At the time of the evaluation 18 management plans for forest reserves had been developed.

Some practical results were achieved allowing longer-term impact. A status of the Romit Protected Area was changed to the Biological reserves to improve the income generation activity of the community living in or around the protected areas. This was enacted by the Government in June 2013.

Also, project has supported the development of the management plan for the Tajik National Park that was included into UNESCO world Heritage, officially registered on July 2013.

Importantly, a number of by-laws such as regulations on agroforestry, Joint Forest Management for Non-wood Forest Products, rules for hay making, pasture land use, hunting, timber production, the collection and processing of medicinal herbs, combatting pests and diseases, etc., have been drafted and submitted for discussion with the relevant ministries and state committees.

Project Management Arrangements, Sustainability, Synergy, and Replication

The implementation of the project is generally in line with the work plan supported by the UNDP CO and Regional Programme Coordinator. The links established with other interventions by UNDP and other organizations has positioned the project in the right way and supports not only the project implementation but also resource mobilization activities.

However, the implementation of the project has been put under the risk by the fact that two Project Managers have left the project. This has increased the pressure on the E&E Portfolio Manager to keep the project on track. Although at the time of the evaluation a local consultant (National Technical Advisor) has been hired to support the realization of the project, there is still no Project Manager, with the implementation burden falling to the consultant and the decision-making burden to the E&E Portfolio Manager.

Rating: Project in Tajikistan

Category	*Rating*	*Comments*
Overall rating:	***Highly Satisfactory***	***Project has addressed the system level in problem solving, which guaranties sustainability of the results produced.***
Activity Result 4.1: Improved enabling environment for CRM at systemic, institutional and	Highly Satisfactory	The project has reached a significant improvement in the legal and regulatory framework in the agro-forestry sector. This is an example of targeted

individual levels		institutional capacity development efforts.
Activity Result 4.2: Sustainably productive agro-forestry CRM tools, financing and implementation models demonstrated in the Gissar river basin	Satisfactory	The project is fully in line with the plan and is expected to deliver most of the expected outcomes.
Activity Result 4.3: Knowledge o how to incorporate climate variability and change knowledge and risks into development processes at local, regional and national levels disseminated	Highly Satisfactory	A significant result is achieved in bringing best-case practices under the attention of the local stakeholders thereby ensuring further dissemination of knowledge and its application in planning processes.
Activity Result 4.4: Scaling up of effective management planning in protected areas of Tajikistan implemented	Highly Satisfactory	Visible results have been achieved in introducing management planning and financial planning tools for the effective management of protected areas in Tajikistan.
Project Management Arrangements	Marginally Satisfactory	The technical expertise and the decision-making power are split within the project, which does increase the transaction costs.
Sustainability, Synergy, and Replication	Highly Satisfactory	The project has produced changes that have all preconditions to be considered sustainable.

National CRM Project in Turkmenistan

Overview

Objectives of the country component: Strengthened policy and institutional frameworks, and increased technical capacity to address climate risks with a particular focus on the needs of agricultural and livestock communities in Turkmenistan**.** The project is designed to strengthen the institutional, legal and technical capacity of key institutions, with a primary focus on TurkmenHydromet. The project focus is on improving the provision of CRM information to vulnerable livestock management and agricultural communities, with pilot assessments undertaken in three typical climatic zones (Mountain, Desert, and Irrigated Oasis). The project also focused on reviewing the potential financing structures for the provision of climate risk information as well as developing long-range climate modeling capacity, and strengthening the links between Hydromet and the MoNP/UNFCCC focal points.

Key stakeholders: Turkmenhydromet, Ministry of Nature Protection, Ministry of Agriculture, Ministry of Water Management and Emergency Response Agency under the Ministry of Defense.

Budget per year, Turkmenistan project

Year	*Budget*	*Delivery in %*
2010	US$ 15 300	n/a
2011	US$ 100 000	???
2012	US$ 90 000	???

2013	US$ 148 500	Expected ???

The project seeks to strengthen the institutional, legal and technical capacity of key institutions, with a primary focus on TurkmenHydromet. Emphasis is given to improving the provision of CRM information to vulnerable livestock and agricultural communities, with pilot assessments undertaken in three typical climatic zones (Mountain, Desert, and Irrigated Oasis).

From the inception workshop in Turkmenistan on 24 March 2011 until the beginning of 2013 little progress had been made in the project, besides which, for a period of over four months (May 2012 – November 2012) the position of National Technical Assistant (NTA) was vacant. The Programme Coordinator and the country UNDP management had a difficult task to find a project coordinator, who started to manage the project during the period from September to December 2012. It has to be mentioned that to ensure effective realization of the project the Programme Coordinator has engaged more experienced Project Managers from Kazakhstan and Uzbekistan to support their Turkmen colleague, which has demonstrated results quickly. However, a managerial decision is needed to ensure that there is a qualified Project Manager or a Technical Assistant in place or otherwise to acknowledge that the Project Managers from Kazakhstan and especially Uzbekistan (as she is a highly qualified hydrologist) would use part of their time to the support of the implementation of the CRM project in Turkmenistan.

The project has quickly progressed over the last few months. Significant efforts by the UNDP CO and project staff have resulted in a clear vision on how to bring the project back on course to achieve a successful and smooth implementation. The current senior management of UNDP CO is highly motivated and wishes to successfully implement the project and ensure a positive impact, which is an important pre-requisite too.

Nevertheless, a lot of work still needs to be done. Lots of efforts were put to reach the agreement with the Government of Turkmenistan regarding the project registration. Even though there is no official registration yet, the project succeeded to get officially approved by Hydromet AWP 2013 and get a number of activities done. A Steering Committee for the Project has still not been formed due to the absence of proper registration of the project and the designation of Hydromet as the official project partner agency. The regional Programme Coordinator in the meantime has been supporting the effort to complete all the necessary preliminary work, such as drafting ToRs, selecting individual and corporate consultants for further activities, building the capacity of national counterparts, including setting up a website for Hydromet. The general perception of the project by the key stakeholders, including representatives of government agencies, is fairly positive, as expressed during and after the CRM training event in early February 2013.

Activity Result 5.1: Improved enabling environment for CRM at systemic, institutional and individual levels

This is a very ambitious result to expect from the project in Turkmenistan. The organization of baseline studies – capacity needs assessment and the climate vulnerability and risk analysis – was selected as an entry point for this activity result. The country team has commissioned a local consultancy to implement the studies, which were accomplished in October 2013. On the basis of the outcomes of the capacity assessment the country team is putting together a CD plan with the focus on remote sensing tools for yield forecasts (together with CRM Kazakhstan), data/information handling and processing, drought management (together with CRM Uzbekistan), etc.

Another example of a successful training event organized recently in Turkmenistan is the land laser leveling training that took place in Ashgabat on 7-9 October 2013. The representatives from all three focus areas of the Project participated. Important to mention, that trainers for this events were brought from Uzbekistan.

In Turkmenistan, the development of an Adaptation Fund (AF) project was funded by the CRM project. This is a significant achievement - the project of $600,000 mobilized $2,929,500 and co-financing commitments (including in-kind contributions) of $2,100,000. In the last two months efforts are being made to harmonize activities between these initiatives. There are no adaptation measures planned within the CRM projects, on the other hand, there are no funds allocated for studies and assessment within the AF project. From this perspective, joint efforts of both projects are beneficial ensuring synergy and multiplying results for the sector. Thus, the outcomes of recently carried out VRA as the input for adaptation measures within the AF project.

Activity Result 5.2: Effective Use of Climate Risk Information demonstrated in rural communities with typical climatic zones

It is too early for any evidence to be provided for this activity result given the status of the project implementation. However, there are attempts to use the results of the VRA to select rural communities for adaptation measures within the AF project.

Activity Result 5.3: Knowledge on how to incorporate climate variability and change knowledge and risks into development processes at local, regional and national levels

The first step was to develop the website of TurkenHydromed. Also a number of regional events have been organized under the project, which a delegation from Turkmenistan took part in:

- 18-19June 2013 (Tashkent, Uzbekistan) - a training and exchange of experiences on drought management (KZ, UZ, TM)
- 16-18 Sept 2013 (Bishkek, Kyrgyzstan) - MountainHazards-2013.
- 7-8 October Laser Land Leveling- Introductory Training course

From the above it may be concluded that the project is partially back on track although the extent to which its objectives will be realized in Turkmenistan remains to be seen.

Rating: Project in Turkmenistan

Category	*Rating*	*Comments*
Overall rating	***Marginally Unsatisfactory***	***The project does not seem to achieve some main objectives however it is gaining momentum and getting back in track. It is strongly recommended to ensure that there is a strong on-site technical assistance provided to the project team to ensure maximum realization of the project objectives.***

National CRM Project in Uzbekistan

The particular focus of the CRM Project in Uzbekistan is on a small/medium-sized basin water resource management, drought management and minimization of the negative impacts of climate-induced national disasters (e.g. drought, mud-slides), which will inform key national development policies and strategies, as well as demonstrating effective financial mechanisms and economic instruments to upscale current climate risk management and adaptation measures and initiate future CRM projects. The project's primary partner is UzHydromet under the Cabinet of Ministers of the Republic of Uzbekistan.

Budget per year, Uzbekistan project

Year	*Budget*	*Delivery in %*
2010	n/a	n/a
2011	US$ 102,540	100
2012	US$ 230,000	95
2013	US$ 234,760	100

Activity Result 6.1: Improved enabling environment and strengthened capacity for CRM at systemic, institutional and individual levels in Uzbekistan

Significant progress in the Programme has clearly been seen in Uzbekistan for this activity result. The CRM project in Uzbekistan is governed by the Inter-Agency Working Group (IAWG) the members of which are the representatives of the six key governmental agencies – Uzhydromet, Ministry of Economy, Ministry of Finance, Ministry of Agriculture and Water Resources, Ministry for Foreign Economic Relations, Investment and Trade, and State Nature Protection Committee. Their active engagement in the project allows expecting that the developments within the CRM project are reaching out to their partners much quicker, allowing for long-lasting impact on these agencies.

Also, the establishment of the (Regional) Drought Center on the basis of Uzhydromet, the development of the Drought Early Warning System (DEWS), regular capacity development events for a broad range of experts and policy-makers, and a study tour to the Drought Monitoring Centre for the South-Eastern Europe (DMCSEE) of the Environmental Agency of the Republic of Slovenia (EARS). Evidences suggest that these steps have contributed significantly to strengthening institutional capacities in Uzbekistan and will provide a strong basis for support to the regional CRM-related institutions. As a result of cooperation with the CAWA project 'Water in Central Asia', the 'MQDSNOW' software package was installed at the Drought Monitoring Centre to strengthen the forecasting capacity of DEWS and hydro meteorological monitoring for the whole Kashkadarya river basin.

A partnership has been established with the Finish Meteorological Institute and a study-tour to Finland was organized for the members of the IAWG and the representatives of the relevant governmental structures. The purpose of the trip was to introduce participants to the best practices of effective early warning systems of climate-related disasters with the focus on inter-ministerial coordination.

The project team has prepared and is realizing a Capacity Development Strategy for the Drought Monitoring Centre, Uzhydromet, Ministry of High Education, and the State Committee for Nature Protection. This is a successful example of the institutional capacity development efforts. Turning drought forecasting (water deficiency) into easy-to-understand information for farmers and local authorities remains a challenge that requires additional attention by the project during the remaining period of the project implementation and should be included in the CD Strategy for the key stakeholders.

Importantly, the project has invested in developing a curriculum on climate change and climate risk management for undergraduates specializing in hydrology and meteorology thereby ensuring a longer-term impact after the end of the project life cycle. A preliminary agreement has been reached to have this included into informal courses for students with further inclusion into environmental bachelor and masters student curricula. A review of the existing legal and regulatory frameworks (five key laws) has also been organized to identify

gaps with respect to CRM. Two recommendations were used for the formulation of the corresponding climate risk management section introduced into the national Water Code.

Activity Result 6.2: Sustainable CRM approaches demonstrated in Kashkadarya oblast/basin

To promote sustainable CRM approach the project has set up a drip irrigation demonstration site in one of the communities in Kashkadarya oblast. Already years ago various organizations and different Programmes (UN GEF, USAID, etc.) invested significantly to demonstrate the viability of the method. This approach has already been proven and put off up-scaling throughout the country. One of the official documents is the Resolution of the Cabinet of Ministers of the Republic of Uzbekistan dated June 21, 2013, No.176 'On measures for the effective organization of the implementation and financing of a system of drip irrigation and other water saving technologies for irrigation'. The resolution follows another resolution of the President of the Republic of Uzbekistan dated April 19, 2013, No. PP-1958 'On measures for the further improvement of the reclaimed condition of irrigated lands and the rational use of water resources in the period 2013-2017'. The project is build upon the importance of drip irrigation in Uzbekistan. Towards this end, the drip irrigation side was set up within the project to advocate for the application of this approach among the farmer community in Kashkadarya region. From this perspective, investing in drip irrigation system in one household to 'select local champion' as the PRC would argue, however valid this might be, cannot be considered as sufficient. Strong advocacy is needed to further disseminate knowledge on drip irrigation technics among local farmers.

In the meantime, progress has been made regarding the introduction of another CRM-related tool, i.e. a water regulating device. This is an innovative approach to be used for the efficient distribution of water resources from the Ayrum canal to supply the local community of Aralovul village in the Kashkadarya region with water. Even though at the time when evaluation the water regulating device was not working (due to some technical issues) the Project Manager has reassured that all necessary measures will be implemented to fix the problem. It has to be mentioned that the recommendation on the proposed water saving device was accepted and would be implemented by Council (Kengash) of Farmers in Kashkadarya regional branch of the Ministry of Agriculture and Water Resources. This is an example of effective scale up of a small innovation that allows to significant impact for the local communities.

The evidence showed that there had been good progress in adopting modeling tools such as Automatic Information System Hydrological Forecasting (AISHF) and Water Evaluation and Planning (WEAP) for the assessment of water saving opportunities further to the use of water saving technologies (e.g. drip irrigation, laser planning, etc.) in the Kashkadarya river basin.

Also, the project supported the use of laser leveling equipment as water saving technology and presenting corresponding results to the regional branch of the Ministry of Agriculture and Water Resources of Kashkadarya region. The application of this approach has already gained the interest of the other countries in the region and has created a strong basic for the potential replication across the region.

Two critical comments have to be made. First, it remained unclear how the Database for Climate Risk Profile (CRP) was developed without having the Risk Profile designed and even without having a methodology in place. Second, the Programme is too ambitious regarding the development of new agricultural insurance products and a set of incentives to introduce and implement CRM financing mechanisms. No evidence was found for the feasibility of the proposed recommendations to create incentives on agricultural insurance products. It is obvious that the limitations (in terms of the scope, budget, and duration) of the project implementation does not allow conducting comprehensive studies to produce viable recommendions. Instead it is possible to set the ground through testing and analyzing of potential benefits of agricultural insurance products. Therefore, it is important not to forge

recommendations but to create a room within the project for testing and analyzing potential benefits of various proposed mechanisms and also accept that not all recommendations produced might be relevant or feasible from the perspective of a stakeholder.

Activity Result 6.3: Knowledge on how to incorporate climate variability and change knowledge and risks into development processes at local, regional and national level

The evidence shows that the CRM project web page www.climatechange.uz was effectively established and is functioning as a platform for the dissemination of climate risk-related information in Uzbekistan. The development of this site and its operation has been funded by UzHydromet and put on their servers. It shows, again, buy-in from the national partner and a solid sustainable in the long run result.

The Project invests also in knowledge dissemination through developing media products and organizing various training sessions: 15 mass media products on CRM facilitated by project at national and local level, about 20 educational and informative events during the Programme realization in Uzbekistan

The regular (quarterly) bulletin on 'Climate Risk Management in the Kashkadarya province' provides a good example of how to include information on runoff forecasting as well as knowledge products on climate change and climate risk management. It has to be mentioned that the bulletin are written in rather technical language. This can significantly limit its informative power for the local decision-makers and farmers. It is recommended to consider adjusting the content of the bulleting to the capacities of the target audience.

It is also important to consider the mechanism of bulletin distribution since its outreach to farmers is very limited. The distribution of bulletins is left to the only representative of UzHydromet in Kashkadarya oblast, who supposed to personally meet farmers and distribute the bulletins. Such mechanism simply does not work. It is also oversimplified to expect that the number of bulletin publications equals the number of farmers with greater knowledge of climate risk, on one hand. The project would benefit from additional attention to the information dissemination process.

The project put significant efforts in organizing various awareness razing and capacity development events. The Project is also very active in supporting activities during the Eco-Week (June 2012, June 2013). Thus, there have been 15 mass media communications on CRM facilitated by the project at national and local level, with about 20 educational and informative events during the project implementation in Uzbekistan. Importantly, the Programme has made progress in impacting policy level. Thus, the recommendation on water saving technology aimed at farmers and households was accepted and will be implemented by the Council (Kengash) of Farmers of the Kashkadarya regional branch of the Ministry of Agriculture and Water Resources.

In June 2013 an Information and Extension Services Center was established at the Karshi Institute of Engineering and Economics under the auspices of the project. The importance of the Center as a knowledge hub in the Kashkadarya province is justified; there were already nine seminars organized for the students on 'Integrated Ecosystem Management in the period of climate change' and one seminar-training for 12 farmers on 'Implementing water waving technologies in Kashkadarya region'. However, additional efforts are required to ensure that the Center can provide services not only to academics but also to the large farming community in the province and ensure transfer of knowledge to farmers to increase effectiveness of their adaptation efforts.

Management Arrangements, Sustainability, Synergy, and Replication

One of the distinguishing characteristics of the project in Uzbekistan is the governance mechanism that has been established and effectively implemented along the whole implementation cycle of the project. Thus, an Inter-Agency Working Group (IAWG) has been set up to ensure effective coordination of the project activities. The IAWG consists of the representatives of the Uzhydromet, Ministry of Economy, Ministry of Finance, Ministry of Agriculture and Water Resources, Ministry for Foreign Economic Relations, Investment and Trade, and State Committee for Nature Protection. Such mechanism allows cultivate strong local ownership over the implementation of the project and its results. This mechanism has attracted the leading experts in the relevant fields and facilitates collegial decision-making, bringing in perspectives from various sectors.

To ensure more focused efforts contributing to the increased sustainability there is a need to sharpen the focus and increased synergy of the educational activities within the project. Given the limited resources of the project it is recommended to avoid a wide variety of loose events. Thus, for example, in 2012 the project has organized a series of educational events such as contest "Ekostart-2012" on the best youth environmental initiative conducted in Surkhan Agricultural College, or an essay contest on climate change and climate risk management in Karshi Engineering-Economics Institute, or a drawing contest on climate change in Surkhan Agricultural Vocational College. The element of critics here is not about the need of educational events.

Also the evaluator has noticed that basically most if not all the decisions for the project in Uzbekistan have to be cleared by the CO's Programme Officers. On one side, this creates an unreasonable administrative burden on the project and limits the flexibility of the PM to operate. On the other, the quality control of the CO is crucial and has ensured high quality results. Therefore, it is recommended that the division of roles and responsibilities between the project and the Country Office be sharpened without jeopardizing the quality control function of CO.

The outcomes of the CRM project provided an input for the project proposal "Developing Climate Resilience of Farming Communities in the Drought Prone Parts of Uzbekistan" for UNDP-funded Adaptation Fund. This demonstrates the longer-term impact the project generates through providing input to other initiatives. In a way, this is an element of an exit strategy of the project.

The project in Uzbekistan has provided significant input and guidance for the whole CA-CRM Programme realization. Also the Project Manager has played a leading role providing both managerial and technical expertise in supporting other countries (mainly Turkmenistan) to ensure effective realization of their projects.

Rating: Project in Uzbekistan

Category	*Rating*	*Comments*
Overall rating	***Highly Satisfactory***	***The project is expected to achieve its main outcomes. The project in Uzbekistan has significantly guided the whole realization of the CA-CRM Programme.***
Activity Result 6.1: Improved enabling environment and strengthened capacity for CRM at systemic, institutional and individual	Highly Satisfactory	Significant results have been achieved in terms of strengthening of capacities of the Drought Monitoring Centre and in organizing joint CD events for the representatives of the relevant institutions from the region.

levels in Uzbekistan		
Activity Result 6.2: Sustainable CRM approaches demonstrated in Kashkadarya oblast/basin	Satisfactory	The project has managed to introduce some new approaches towards CRM. It is important however to readdress the effectiveness of advocacy efforts for drip irrigation in Kashkadarya oblast.
Activity Result 6.3: Knowledge on how to incorporate climate variability and change knowledge and risks into development processes at local, regional and national level	Satisfactory	Efforts were made to develop and disseminate knowledge products within the project. It is expected that the project would manage to incorporate CRM into national and local planning as it successfully did for Water Code.
Management Arrangements	Highly Satisfactory	The project governance system is different from that of other CRM projects. The work arrangement allows expecting more local ownership towards the project and its results.
Sustainability, Synergy, and Replication	Highly Satisfactory	The efforts made within the project allow expecting longer-term impact. Already at this stage, the project has effectively replicated some CD efforts into other partner countries. However, more sharper focus on on-ground educational events would benefit the project.

Total Rating: Effectiveness and Efficiency of the Programme

Category	***Rating***
Overall rating	***Marginally Satisfactory***
Regional component	Satisfactory
Kazakhstan	Satisfactory
Kyrgyzstan	Marginally Satisfactory
Tajikistan	Highly Satisfactory
Turkmenistan	Marginally Unsatisfactory
Uzbekistan	Highly Satisfactory

Chapter 5: PROGRAMME MANAGEMNET

5.1 Cross-practice Coordination

It should be emphasized that CA-CRM is a truly cross-practice intervention. The project is being implemented by the UNDP Energy and Environment Team (Climate Change Adaptation Team) in collaboration with the UNDP Bureau for Crisis Prevention and Recovery (BCPR).

CPR (Conflict Prevention and Recovery) Practice and E&E both provide technical guidance and coordination with programmes/projects implemented by BCPR. The fields of climate and disaster risks are closely connected and address both fields ensuring more comprehensive efforts to increase societal resilience at all levels. From this perspective, the cross-practice approach of the Programme, that allows focus to be maintained on both climate and disaster risk considerations, is very much welcomed.

The cooperation between the practices is very well established. Both are involved in regular teleconferences organized under the Programme to steer its implementation, they attend regional meetings, and provide technical assistance for the Programme implementation. This arrangement has been shown to be successful at the regional level. However, there are some challenges in its realization at national level. The implementation of the Programme often ends up taking an adaptation-focused perspective. Much of the rhetoric in the national components of the Programme is on adaptation, with less consideration given to disaster risk reduction as noted several times by the CRP Practice Leader.[6] It is recommended that a position paper (white paper) on climate risk management be produced for the CRM Programme to help guiding Programme implementation at local level.

Another important aspect is that lessons learned from cross-practice arrangements be documented during the implementation of the Programme. Indeed, the lessons learned encountered during the realization of the Programme are reflected in the project reports. It would be useful to define lessons learned for each CRM intervention and use this as an input for the design and implementation of new interventions of a regional nature.

5.2 Programme management arrangements

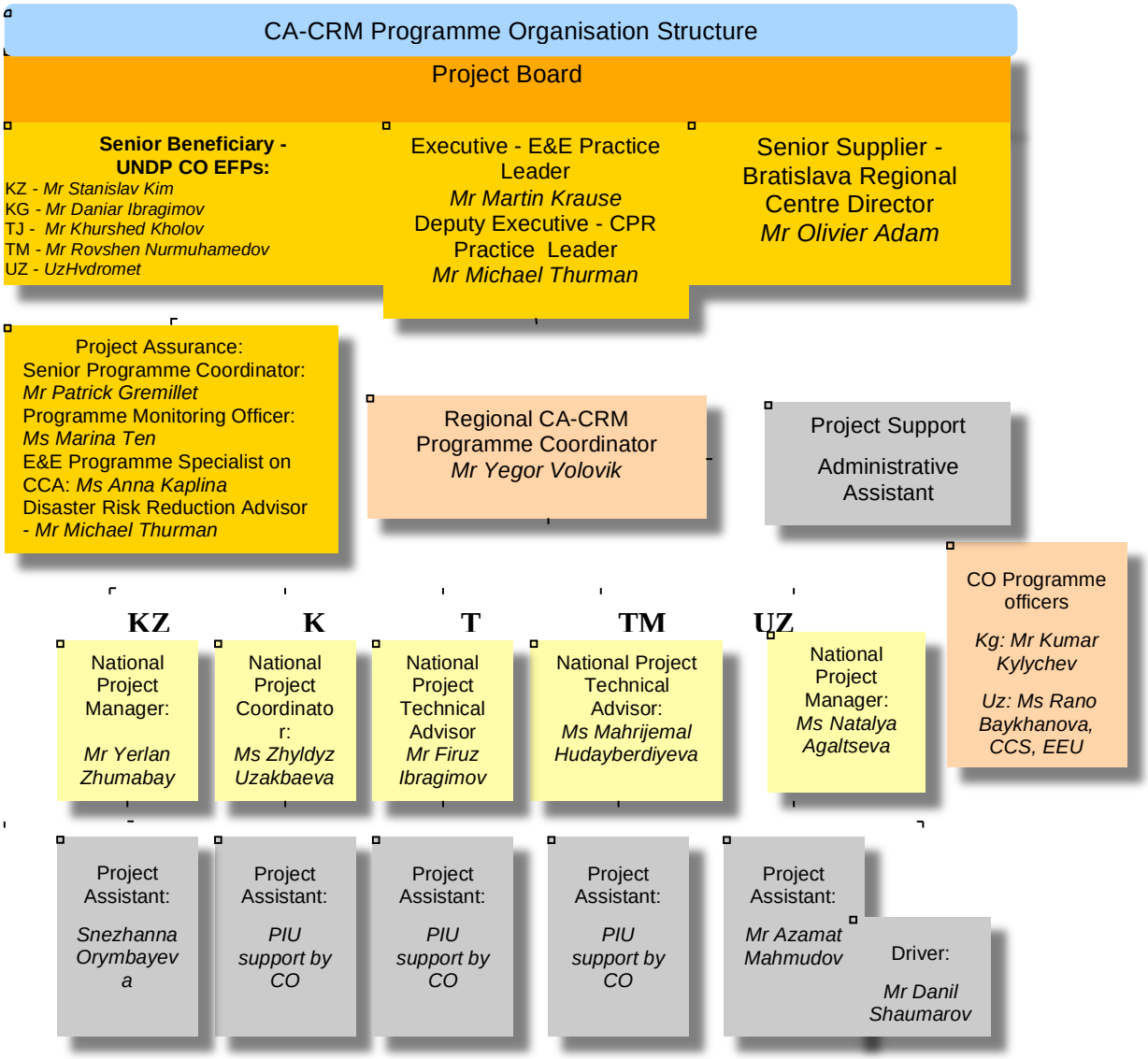
The project is being implemented under the Multi-country project arrangement with the Bratislava Regional Centre (BRC) as the lead office and UNDP Kazakhstan, UNDP Kyrgyzstan, UNDP Tajikistan, UNDP Turkmenistan and UNDP Uzbekistan are the participating Country Offices. BRC is responsible for the overall coordination and reporting

[6] Minutes of the regional meetings.

requirements which it provides on behalf of the Country Offices based on the input provided by them. The Programme is managed by the BRC through its regional hub in Almaty. The Programme is coordinated by the Regional Programme Coordinator (based in Almaty) who also manages the regional project component. The national projects are managed by a NPM (except for Tajikistan and Turkmenistan), who have matrix reporting lines to the Regional Project Coordinator and the respective Country Offices. As shown in the figure below, all the country offices have rather similar management arrangements, except for Uzbekistan and Kyrgyzstan, which is explained by the specifics of CO. Project in Uzbekistan has a driver in the staff. The project in Kyrgyzstan has an Assistant. The role of the CO in the overall quality control is absolutely crucial: in Uzbekistan the CO's engagement has ensured high quality deliverables, yet, in Kyrgyzstan it is recommended to intensify the role of the CO in the project realization.

The evidence suggest that the Regional Programme Coordinator needs additional support in the realization of the Programme: he manages the Programme regional component, carries out monitoring of the Programme and guides the implementation of the national project components (including regular monitoring and business missions), while at the same time providing regular technical assistance to all five operational countries, alongside intensive resource mobilization efforts and PR as well. The evidences suggest that RPC is largely involved in PR, building relationships with the national, regional, and international stakeholders and trouble-shooting when relationships are endangered. Given the fact that the Programme has a very broad coverage and aimed to serve as a platform for innovative CRM solutions, monitoring and learning are critical to the Programme and require full-time engagement. Therefore, it is recommended to a consider supporting RPC in its monitoring and learning function. Given the fact that the RPC is heavily engaged in the RP activities and the long-lasting delay of the KMP, it is also recommended to reconsider the role and the engagement of the Regional Project Implementation Facilitator.

Figure 1: Programme organizational chart



Despite the efforts of the Regional Programme Coordinator to steer the implementation of the Programme, the high staff turnover in 2011-2012 has created a significant challenge. For example, four out of five managers of the national projects (twice in TJ) and one administrative assistant on the National CRM Project in KZ resigned from the Programme. In addition to this, in Kyrgyzstan and Turkmenistan a significant re-organization of UNDP COs took place. This negatively impacted the support provided by UNDP COs to CRM Projects. Consistency in the implementation of each country component and the smooth transition to different management arrangements was an issue, which caused delays in the Programme realization, resulting in lost institutional memory and partial damage to relationships

established with the partners. Extra efforts were required at both national and regional levels to make sure that Programme implementation is in line with the agreed work plans.

Given the fact that the country teams are directly responsible to the Programme Regional Coordinator as well as to the Country Offices, the country teams consider the administrative burden of the Programme to be high, i.e. double reporting (different formats), budgeting, monitoring, etc. Efforts were already put in place to minimize this effect.

The total Programme budget funded by BCPR is US$ 4 million, with each country component varying from around US$ 160-240,000 per year. The regional component is funded by the regional TRAC. The suit of activities as it is outlines in the project document are based on a three-times larger funding. With only about 30% of the expected funding the project focus needs to be further sharpened. The limited annual budget spread over all the components of the Programme, unless carefully targeted to specific activities, may make it difficult to produce visible results for all activity results by the end of the Programme implementation. The intended objectives of the Programme at country level - such as a) strengthening institutional frameworks and technical capacities, b) expanding financial options and implementing climate change adaptation options, and c) disseminating knowledge on climate change and integrating risk into development processes at national, regional, and local levels - require long-term commitment and financial engagement. Given the limited annual budget, the current level of diversification of the Programme's activities may result in a loss of focus and generate such a granularity of interventions that the Programmes does not produce the necessary traction to address longer-term climate risk management challenges. Various recommendations on how to sharpen the focus of the Programme implementation were provided throughout the evaluation report.

Support to country teams

The country teams are generally satisfied with the level of independence they are given by the RPC, as well as the support they can expect from the Programme management when this is requested. Alongside the active engagement of the Regional Programme Coordinator in the country-led events and the regular monitoring missions (see Annex 7), there is, however, a need for stronger technical guidance and steering of the implementation of the country components to ensure that they are geared towards the larger, regional objectives. This is especially important for Kyrgyzstan and Turkmenistan components of the Programme.

Country offices' support

Close cooperation with UNDP COs has been established on technical issues in all countries of operation. It has been noticed that the COs are supportive and much coordination happens at the portfolio level, like in Uzbekistan or Kazakhstan. However, there are also challenges related to the financial and administrative support provided by UNDP COs in support of CA-CRM (e.g. slow contracting, payment delays, or occasional micro-management). Yet this doesn't significantly impact the Programme realization.

Adaptive management

The assessment of the level of adaptive management in the Programme was based on an understanding of the interplay between change and persistence in the Programme. Thus, when assessing the level of adaptive management[7] the primary focus was on the following distinguishing features of adaptive management:

- as a process of decision-making in the face of uncertainty through system monitoring; and
- as a learning process to inform the Programme implementation and thereby ensure that the outcomes are responsive to quickly changing needs in the context of the Programme's operation.

[7] http://www.resalliance.org/index.php/adaptive_management

In its day-to-day practice the Programme has demonstrated adaptive management. This was largely driven both by the changes in Programme context (emerging needs and opportunities) and by the fact that the expectations from the Programme were and remain far beyond its reach given the current level of funding. The latter required stretching the Programme internal resources and capacities, resulting, in the opinion of the evaluator, often in 'crisis management' mode rather than proactive, forward looking 'adaptive management'.

To ensure the 'legitimacy of knowledge' produced the Programme has to ensure that the learning is documented and analyzed and that this takes place at all stages of the Programme implementation. This is important to clistalize the 'case' (method/approach/tool) and clearly defining how each 'case' can be replicated and scaled up. The evaluator disagree with the position of the RPC that lessons learned can be made 'available' only at the end of the Programme realization.

Special attention needs to be devoted to the Programme and project risk management as a tool for adaptive management. Identification, analyses, prioritization, and respond to the risks is the forward-looking 'adaptation' management that the Programme can effectively implement.

5.2 Monitoring and Reporting mechanisms

Programme monitoring and reporting

There is a multi-layered monitoring system established as part of the CA-CRM Programme to reflect on the progress made towards Programme's objectives *vis-à-vis* its results framework.

The monitoring system includes a core set of quarterly, monthly, biannual and annual reports. There are also monthly teleconferences with the Programme country teams and BRC Practice Coordinator and E&E Programme Specialist on CCA. Progress reports are prepared for individual projects prior to staff teleconferences.

The Programme has two reporting lines: one within the Programme – from country teams through the Programme Coordinator to the Programme Board, and the second, parallel one, from the country teams to the Country Offices. The reporting cycles coincide but the reporting format does not, which creates an additional burden on the country teams. There are efforts to address this in the Programme, however, it is also important to ensure that there is adequate reporting in the Programme therefore some inconvenience may have to be accepted.

The structure and the content of the Programme quarterly report (that constitutes the basis for annual and semi-annual reports) focuses on the progress made *vis-à-vis* the work plan, lessons learned, and risks to the realization of the Programme. Analysis of the reports however shows that their quality varies significantly and there are some issues which need to be addressed:

- *Information provision:* quality of the reporting is uneven, ranging from very little information about the activities to excessive wordiness and volumes of duplication. Examples of high quality reports have been provided by Tajikistan.
- *Project risk consideration:* this part of the reports would benefit from some additional attention. Staff members mainly operating with external (contextual) risks rather than the project operational risks that are focused on to minimize project deviations in terms of the time frame, budget, and the expected quality of the results produced. For instance, in APR 2012 only one risk was related to the implementation and the rest to the contextual risks identified during the design of the project. No new external risks mentioned even though the Program context is highly dynamic. One of the risks mentioned in project document was the following: *There will be difficulties in achieving integration of disaster reduction and climate change adaptation efforts at the national level.* This is insufficient information to ensure adequate risk response

measures. However, the risk status in 2012 was mentioned as follows: *Significantly reduced as of 2012. A separate activity has been carried out additionally to overcome methodological and practical obstacles. However, some minor risk of this kind remains for activities at local level in the countries.* If only few minor risks remains then CCA and DRR efforts are almost fully integrated at the national level. The Programme has to be realistic in assessing its own risks.

It is also useful to distinguish 'project-level' and 'programme-level' risks, to have full overview of the risks that each Programme component encounters (both national and regional) and how those risks would impact the overall 'riskiness' of the Programme. This analysis is not articulated in the Programme.

Therefore, the Programme would benefit from additional attention to risk management. An attempt has already been made though providing a training session on PRINCE, however, the risk management component of PRINCE is rather limited.

- *Lessons learned:* this part of the report focuses on describing the challenges encountered with some details of how they were overcome. It is important to crystalize the lessons that have been learnt from the implementation and define the clear sequence of steps needed to set up and implement each 'case' that is aimed to be scaled up.
- *Budget:* the focus is on budget realization per activity result. This provides very little information from which to conclude anything about the efficiency with which the resources were spent. Yet, the evaluator fully agrees with the RPC that in order to break down the budget additional burden from the staff would be required. To avoid this, some quality control from the COs would be helpful.
- *Overall focus of the reports:* indeed, as was mentioned in the latest BCPR monitoring mission report, the Programme reporting focuses on the outputs. This is also understandable given the state of the Programme realization. However, it is important to demonstrate the link wherever possible and when the Programme has produced results at the outcome level. Given the nature of the Programme, e.g. highly complex, no linear cause-effect relationships between output and outcomes, complex results chain, it is recommended to consider applying the 'outcome harvesting'[8] method to provide collective evidence of what has been achieved. With such a complex Programme as CRM with the engagement of multiple partners, attributing results remains a challenging and sensitive issue.

It is recommended that the reporting be revisited and the need for more precision information be highlighted to better convey a more concrete picture of the achievements made and challenges encountered, as well as to better demonstrate the outcomes produced. For instance, when there is a reference to an event organized it would be absolutely important to mention the date of the event, or when there is an information about a document being 'adopted' it would be also useful to mention when 'adopted' means official endorsement (in that case, refer to the official document) or a sort of verbal agreement which can not have a bounding nature.

Also it has been noted that after analyzing the original sources (for instance the publicayions made within the Programme) the over optimistic reporting of the Programme deliverables raised some concerns. It seems to evaluator that there is a tendency within the Programme to overestimate the results achieved and fear of 'none delivering' or 'failure'. This creates some preconditions to deny any critical review of the progress of the Programme, which has also been noticed during the protracted feedback review of the evaluation report. The evaluator is deeply confident that the Programme would benefit should it employ a bit more open position

[8] As suggested in discussion paper Innovation in Monitoring & Evaluating Results, UNDP, November 2013

to communicate things that went wrong or not as expected in order to learn and improve but not to blame.

Scientific and analytical reports produced in the Programme

By its nature the Programme is expected to produce some analytical reports, studies, and assessments, etc. This is another type of reporting in the Programme. This work is done mainly through an externally hired expert or a group of experts within the Programme. For the reports of regional significance it is strongly recommended that a system of independent expert expertise be introduced prior to the publication of such documents. This is definitely expensive proposal but the Programem has to make a choice if it aims at producing high-quality scientific/analytical products.

5.3 Coordination with other Programmes/Projects

Synergy between the Programme and other interventions

The budget limitations *vis-à-vis* the scope and scale of the country components of the Programme means that fund-raising efforts will be required. In 2010-2012 successful resource mobilization efforts resulted in the following additional projects that have been included as part of the CA-CRM responsibility:

- "Improving the Climate Resiliency of Kazakhstan Wheat and Central Asian Food Security " ─ USAID-funded project (total budget US$ 1,102,628 implemented by CRM Project in KZ (US$ 557K) and CA-CRM Regional Project (US$ 541K), 2013-2014;
- "Enabling integrated Climate Risk Assessment for CCD planning in Central Asia" – CDKN9-funded project (implemented in cooperation and through Camp Alatoo, KG with full technical coordination by UNDP CA-CRM Regional Project, total budget: £77,125 or US$ 124,59610), Feb 2012-March 2013;
- "Climate change and security in Eastern Europe, Central Asia and the Southern Caucasus" ─ an ENVSEC project funded by the EC Instrument for Stability (IfS), overall project budget is €2,125,000 or US$ 2,818,38811; UNDP focus - Central Asia, UNDP budget: €177,434 or US$ 235,331); Jan 2013-Dec 2015.

The success of the fundraising was achieved primarily due to the efforts of the CPR Practice Leader, Regional Programme Coordinator and the country teams. Also should be mentioned that the E&E Practice prepared a proposal to ENVSEC for glacier component, also worked on submissions to BPAC and UNDP regional programme for $500K. The Programme team requires high-level support of Practice Leaders, BCPR, and BRC for effective resource mobilization. Annex 3 provides an overview of the Programme Funding and Distribution / Co-financing in January 2013.

It is also important to mention that the success of the partnership can be explained not only by the need to mobilize resources but also by the urgent need to harmonize efforts with a wide range of partners. From this perspective, the Programme has became a ‘focal point’ for many organizations to check on any issues related to climate risk within the region. For instance, the CA-CRM Programme has been included in the action plan of the Central Asia Regional Risk Assessment (CARRA). This implies that the Programme is considered in the Central Asian region as an important platform for international community accreditation with regard to addressing climate risk management issues in the region. The Programme has successfully managed to combine its activities with many other relevant interventions (see Annex 5).

Risks to be considered

[9] CDKN - Climate Development Knowledge Network, http://cdkn.org/
[10] The official UN rate was used for December: £1 = US$1.6155 ;
[11] The official UN rate was used for December: €1 = US$1.3263 ;

Although the combining of efforts with various interventions in many cases is cost-effective and can maximize the intended results, it is also a risk to the Programme, in terms of:

- losing focus, thereby remaining a supplementary source for other interventions which are only partially aligned with the Programme's strategic priorities;
- shifting ownership of the implementation from the Programme country partners possibly to other partners the Programme has partnered up with for the interventions ;
- losing the visibility of the Programme and thereby the necessary level of attention to climate risk management issues *vis-à-vis* the priorities of the other interventions;
- losing the systematic approach to developing the adaptive capacities of the Programme's national and regional partners through investing resources in one-off events/efforts with multiple partners.

Recognition and consideration of these risks are important when entering into partnerships with other Programmes or projects. So far, the Programme has demonstrated a number of highly successful partnerships. For instance, with UNSAID, or the whole range of various partners who supported the Mountenhazard-2011 and Mountenhazard-2013 events, or with ENVSEC and CARRA at the regional level. There remains some concern for the initiatives at local level. Given the cross-cutting nature of CRM and DRM issues, the range of potential stakeholders to partner with or events to support is huge. However, it is recommended that the implementation of the national components is focused through the prism of clearly positioning CRM in the development landscape of the region and a clearly defined CD strategy for institutional capacity development in the countries of operation.

5.4 South–South Cooperation

The term 'South-South cooperation' in the Programme leaves room for various interpretations. The Programme's national and regional teams understand it primarily in terms of the events that were started in one of the countries and then scaled-up to include other countries in the region, for instance, joint training events, or study tours. From the perspectives of some members of the Programme Board, however, the 'South-South cooperation' component implies a much broader perspective - sharing knowledge and experience with other relevant initiatives across the globe. This goes far beyond the boundaries of the CA-CRM Programme.

With respect to 'South-South cooperation' in the Programme the following has been observed. As a multi-country initiative the cooperation between the intervention countries was not initially envisaged as part of the Programme. However, as the implementation process progressed the need to share experience and learn from each other across the country along the implementation became apparent. To address this need, a 'South-South' initiative has been initiated under the Programme to facilitate cross-country peer review, learning, and joint efforts. The need and importance for such activities is unquestionable. By introducing this dimension the Programme has gained more of a 'regional' nature, [12] which is certainly justified, especially from the perspective of achieving economies of scale.

However, it remains important to clearly define those regional activities that will enable economies of scale to be achieved. The activities around drought management within South-South cooperation have gained immediate attention from all countries, which once again suggest the importance of the subject for the whole region. Despite their evolving nature (the needs are evolving and therefore the CD events to be organized at regional level also), it is recommended to ensure that these events constitute the indivisible part of the regional component and are implemented in a more organized fashion. This would also require a clear

[12] According to UNDP Programme and Operations Policies and Procedures (POPP), regional programming relates to activities common to more than one country.

division of what is explained by South-South cooperation and what is a part of the regional component of the Programme.

With respect to 'South-South cooperation' beyond the CA-CRM Programme itself, it indeed constitutes an important contribution to the global learning processes of the UN and beyond. Sharing lessons with other partners from around the globe should remain one of the priorities of the Programme. Efforts in this direction have already been made: participation at many prominent international fora and the presentation of the Programme there, as well as the agreement to publish the Programme's lessons learned at the WOCAT thereby making them available to a significantly larger group of experts. However, without clearly defined lessons learned this process has a slow pace at this moment.

Total Rating: Programme Management

Category	*Rating*	*Comments*
Total rating	***Satisfactory***	***The management arrangements sufficiently support the Programme implementation.***
Cross-practice coordination	Satisfactory	The cross-practice coordination is well organized to ensure a shared perspective on the consideration of climate and disaster risks.
Monitoring and reporting mechanisms	Marginally Satisfactory	The monitoring system in place provides fairly adequate information on the project implementation, however, there is a need to sharpen the focus of monitoring and improve the quality of the reporting.
South-South cooperation	Satisfactory	The processes established across the countries are useful. It is, however, important to ensure regular CD efforts at regional level to optimize operational efficiency as part of the regular regional component rather than the South-South element.

CHAPTER 6: SUSTAINABILITY, SUNERGY, AND REPLICATION

The initial design of the Programme implies a certain thematic parallelism between the country components with minimum synergy. But with greater focus on knowledge exchange, learning, and joint regional capacity development efforts (what is currently considered as part of the 'South-South' cooperation), the links between the Programme components will be activated. Especially in the context of greater synergy, it is of the utmost importance to intensify cross-country learning, as suggested earlier in the report.

The Programme has already demonstrated some examples of successful replication of various efforts on the regional level. Thus, the laser leveling approach successfully applied in Uzbekistan has interested partners in Turkmenistan and Kazakhstan on the basis of which it may be assumed that these approaches may soon be used in these countries too.

Sustainability is considered to be the leading principle in the CRM Programme. The Programme results will last in the long term when climate risk response measures are tailored to specific local needs and based on a careful consideration of priority climate risks whose potential consequences are defined and understood. This is only possible after climate risks

have been assessed and baselines are set. This requires additional efforts from the Programme.

In response to already know climate risks the Programme managed to introduce some systemic changes through the improvements in the legal and regulatory frameworks of the target countries, as well as regular capacity development. Significant results have been recorded across all countries of operation.

Total Rating: Sustainability, Synergy, and Replication

Category	*Rating*	*Comments*
Total rating	***Marginally Satisfactory***	***The Programme has set the stage for continuing efforts to increase resilience to climate-related risks throughout the region. Through introducing CRM at policy level and into legal and regulatory frameworks, the Programme ensures a long-lasting impact on targeted sectors. To ensure that the efforts target the priority risks and therefore the most urgent needs, this needs to be underpinned by an adequate climate risk assessment.***

CHAPTER 7: PROGRAMME VERSUS PLATFORM: EXIT STRATEGY OR EXTENSION

The CA-CRM was designed as a multi-country Programme with a set of activities to implement and thereby to directly modify climate risks in the Central Asian region. During its implementation it has become visible that the Programme serves a much broader role and thereby has a potential to stand out in the landscape of development organizations in the region. The broader role implies that the Programme stimulates thinking and discourse on the subject of climate risk management, that the Programme supports innovative ideas, and that it seeks to produce studies that can further enrich CRM-related thinking in the region. From this perspective the Programme serves in the role of a '*platform*', promoting and prototyping innovative ideas, testing them and passing them on to others for the further realization, replication, and scale up.

If that is so, the Programme also has to address the fundamental tension between 'prototyping' and 'testing' on one hand, and replicating and ensuring sustainability on the other. It would be too ambitious to tackle both dimensions given such a broad thematic scope of the Programme. Yet as a platform, it can support CRM knowledge management through regular scanning of CRM-related needs in the region at various levels, designing optimum solutions with the active engagement of academia, policy-makers and practitioners, and prototyping, testing and disseminating lessons learned. In other words, CRM can serve in the role of knowledge database that donors (especially given the fact that CRM is part of the CARRA Action Plan) and local governments can use to maximize their efforts to tackle climate risks in the CA region. As a platform CRM can provide a basis for harmonized efforts on the part of international donors and the governments of the CA countries. This would also enable the focus for capacity development efforts to be fine tuned. Currently the Programme is engaging in multiple partnerships however, it would also be useful to intensify efforts in building dialogue with other partners with the focus to harmonize efforts on climate risk management.

The exit strategy could be the 'hand-over' of those initiatives that have achieved the necessary traction and 'cancelation' of those that have not. In either case there are lessons to be learned and shared within and beyond the CA-CRM.

The need to address climate risks is huge and growing, therefore, there is a large performance arena for the CRM Platform in the region. Adopting such a *modus operandi* would support the realization of the UNDP strategic priorities as defined in the Draft Strategic Plan, 2014-2017 and is in accordance with UNDP's aim to '[We will] make comprehensive changes in our operational approach. We will support expanded policy research, a dedicated project modality that can accommodate financial and in-kind contributions and deepen of our engagement with emerging partners'.[13]

[13] UNDP Draft Strategic Plan, 2014-2017, p.17

CHAPTER 8: CONCLUSIONS AND RECOMMENDATIONS

Programme Rating

Category	Rating
TOTAL RATING	**Satisfactory**
Project Design and Relevance	Satisfactory
Programme performance: effectiveness and efficiency	Marginally Satisfactory
Sustainability, Synergy, and Replication	Marginally Satisfactory
Management arrangements	Satisfactory

Based on the foregoing analysis and some amount of evidence collected during the Programme evaluation the following recommendations are proposed:

General programme-wide recommendations

Recommendation	***Proposed actions***
The Programme has a broad thematic and geographic coverage. Given all the challenges with slow start-up and the implementation of the Programme and limited remaining time, it is recommended to review the Programme document to ensure greater coherence of its national components, more target implementation, and realistic expected outcomes.	• Review expected outcomes as proposed earlier in the report • Broaden the focus of the Programme considering both positive and negative impact of the changing climate but narrow down its scope in each country of operation within the given thematic emphasis. • Produce a positioning paper (a white paper) on climate risk management for CRM Programme that would help guiding the Programme implementation at the local level. This should clearly define the Programme's position with respect to weather, climate variability, and climate change vs. disaster risks. • Sharpen the focus of the regional component: ensure the clear strategy for the regional CD initiatives and supporting plan of activities for the remaining period. • Define the Programme's objective with regards to risk financing local mechanisms. This is a task of a great difficulty. Yet the Programme's added value may be in introducing and implementing cost-effectiveness and cost-efficiency of CRM measures.
Strengthen the Programme implementation	• Review the climate risk assessment methodology and carry out the baselines in each country of operation by the end of the Programme life cycle. • Consider taking into account the WMO's efforts on standardization for hazard monitoring, databases and metadata and analysis techniques to support risk assessment: http://www.wmo.int/pages/prog/drr/projects/Thematic/HazardRisk/2013-04-TechWks/index_en.html • Design mid-term capacity development strategies (3-5 years) for each targeted sector to guide more focused programme implementation at the national level thereby attract new donors. • Design and implement a 'coaching' plan with respect to the Programme's components in Turkmenistan and Kyrgyzstan to ensure that both components receive maximum technical assistance to realize their objectives. • Defined a concept of 'knowledge management' within CRM Programme and a road-map of its implementation with the two-fold perspective: a) before the end of the Programme, and

	b) with more forward-looking perspective. • Ensure that KMP is on-line urgently. • Consider the possibility of making the CRM Programme's lessons learned available on an on-going basis to ensure learning within the Programme and beyond. Clearly define the focus of the lessons learned for the Programme. This is absolutely crucial to desing the sequence of steps for each 'case' and thereby ensure adequate scale up. • Explore options to partner up with WB thought its Central Asia Hydrometeorology Modernization Project (CAHMP) while developing/revisiting climate risk assessment methodology. • Intensify efforts with the national Emergency Management Authorities in terms of technical support and their wider engagement in the Programme implementation. • Intensify regional efforts regarding the effective functioning of the Drought Early Warning System through supporting establishing a regional network comprised of the Drought Management Centre in Uzbekistan, Institute of Drought in Turkmenistan, a Central Asian regional center for countering desertification in Kazakhstan, and its relevant counterparts in the other countries. • When relevant harmonize efforts with the Regional Programme for Sustainable Agricultural Development in Central Asia and the Caucasus that is implemented by the International Center for Agricultural Research in the Dry Areas (ICARDA): http://cac-program.org/aboutus.asp Ensure that there are minimum overlaps with CA-CRM Programme. • Design 'exit strategy' for the models/cases developed within the country components of the Programme. • Design resource mobilization strategy for the CA-CRM Programme • Intensify quality control measures from COs • Ensure quality check of the scientific/analytical publications commissioned within the Programme and if possible consider working with the research/scientific institutions • Provide stronger technical guidance and steering of the implementation of the country components to ensure that they are geared towards the larger, regional objectives. • Consider replicating the governance model of the project in Uzbekistan to other countries.

Country-specific recommendations

Kazakhstan:

- Pay extra attention to the visibility of the Programme realization to keep CRM high on the agendas of the national partners.
- Step-up efforts with the Ministry of Emergency Situations.

Kyrgyzstan

- Ensure necessary efforts to minimize negative effect caused by the publication of CRM methodology, country national profile, and Susamur report through active dialogue with the key stakeholders (especially KyrgyzHydromet) to define and manage stakeholders expectations
- A special action plan is required to address the existing shortcomings within the project and to ensure its effective realization within the remaining period.

- Special monitoring and quality control efforts needs to be set up by the CO office to support adequate realization of the project in Kyrgyzstan.

Turkmenistan

- Ensure strong on-site technical assistance provided to the project team (either hire a qualified PM or a temporary TA or more active engagement of the RPC)
- Review the ProDoc and set realistic objectives given the limited time remaining for the Programme implementation.
- A special action plan is required to address the existing shortcomings within the project and to ensure its effective realization within the remaining period.

Uzbekistan

- Intensify efforts on building capacities of the Drought Monitoring Centre (DMC) and support its activities.
- Intensify the advocacy of 'drip irrigation' among local farmers in Kashkadarya region.
- Review the public awareness strategy ensuring maximum outreach to the farming community and how to turn drought forecasting (water deficiency) into easy-to-understand information for farmers and local authorities.
- Define the strategy for the Information and Extension Services Center to ensure that it is a resource center both for students and farmers, as well as for a broader range of stakeholders.

Tajikistan

- To harmonize efforts with WB Pilot Program for Climate Resilience (PPCR) and when possible initiate joint efforts especially with respect to capacity development efforts.
- Address the format of micro-loan funds and their further engagement in DRM Funds when they are no longer under the UNDP supervision and control.
- Readdress the management arrangements.

CHAPTER 9: ANNEXES

Annex 1: Terms of Reference

CA-CRM Mid-Term Evaluation Terms of Reference

Post Title:	International Consultant for Independent Evaluation (Programme Mid-term Evaluation)
Project:	UNDP Central Asian Programme on Climate Risk Management (CA-CRM)
Duty station:	Home-based with one mission in to Central Asia (visit to Kazakhstan, Tajikistan and Uzbekistan, Kyrgyzstan and Turkmenistan - desk review and remote interviews)
Duration of Assignment:	01April to 31 May 2013 (30 w/d)
Type of Contract:	IC Contract
Educational Background:	Advanced university degree in technical, economics or environment related issues.
Work Experience:	At least 15 years extensive experience in climate change adaptation, disaster risk reduction, risk management or other relevant fields, experience with evaluations of UNDP Projects; Recent experience with result-based management evaluation methodologies; Recent experience in evaluation of international donor driven projects; Experienced in project cycle management.

BACKGROUND AND CONTEXT

Central Asia (CA) is one of the world's most vulnerable regions to current climate variability and to the impacts of future climate change. This is as a result of a combination of factors, including: i) the region's inherent aridity; ii) existing environmental mismanagement (a remnant of the Soviet era); iii) an environmental degradation – a legacy of central planning in the region; iv) under-investment in housing and infrastructure14; v) existing developmental challenges; vi) biophysical stresses; vii) high frequency of disaster events; and viii) underlying low climate-related disaster risk reduction and adaptive capacity. Climate change is likely to manifest in CA as:

i) increasing temperatures;
ii) changing rainfall patterns;
iii) increasing aridity;
iv) an increasing frequency of extreme weather events (such as dust storms, heavy rainfall, haze, heat waves and heavy winds); and
v) an increasing frequency and intensity of climate-related disasters (such as floods, droughts, mudslides, avalanches and landslides).

Trends over the last few decades indicate that these predicted changes are already being experienced in CA countries (see national components for more details), and current climate variability is already adversely impacting on development. Considering that both current and future variability and changes need to be addressed and adapted to, Climate Risk Management (CRM) is an appropriate response, as it includes both climate-related disaster risk reduction and climate change adaptation.

[14] Infrastructure throughout CA is also breaking down as a result of poor maintenance since the break up of the Soviet Union.

As a result of the above, climate change is likely to have serious consequences for three key sectors in CA, namely: water, agriculture and energy. Current climate variability is already impacting on these sectors, particularly where unsustainable development practices are prevalent. The current and future impacts on these sectors will have considerable implications for cross-sectoral concerns, such as water security, food security, energy security and human health (detailed below) and are subsequently likely to jeopardise many hard-won development gains. The significance of these impacts is largely due to the critical interfaces that exist between key sectors (e.g. water and agriculture or water and energy) in CA. Furthermore, although the region is prone to earthquakes, the majority of disasters are triggered by hydro meteorological hazards, including drought, floods, extreme temperatures and rainfall-related landslides; all of which are likely to increase under a changing climate. Unless timely, coordinated and sustainable CRM measures are implemented, CA is likely to experience considerable economic loss, humanitarian stresses and environmental degradation as a result of climate-related disasters, climate variability and change.

During the past decades, climatic variability in CA has triggered *inter alia* crop failures, malaria epidemics, and shortages in water for hydropower and irrigation, with considerable consequences for food, health, energy and water security. Recurrent drought (2000-2001 and later in the decade) has, for example, already affected hydropower generation, water supply for irrigation and household use, rainfed cropland, and pasture productivity. A 2008 United Nations Development Programme (UNDP) multi-country risk assessment indicated that electric power generation shortages in Kyrgyzstan and Tajikistan stalled industrial growth in both countries as well as deprived millions of people of access to heat and electricity in severe winter conditions, resulting in a humanitarian crisis. To avoid this situation from reoccurring, the Kyrgyzstan government has been working to prevent reservoir water reserves from dropping to “dead levels” before winter of 2009. The increasing frequency of these events is likely to reduce the availability of irrigation water for agriculture in the downstream Central Asian countries, such as Uzbekistan and Turkmenistan. Furthermore, above-average warming and glacial melting associated with global warming are expected to elevate the level of existing climate-related risks and create new patterns of risk. The climate change-related problems likely to be experienced in each key sector are elaborated below.

The Central Asian Multi-Country Programme on Climate Risk Management (CA-CRM) directly contributes to Outcome 1 of the Regional Programme for Europe and CIS managed by the UNDP headquarters in New York and the Regional Centre in Bratislava, Slovakia "By 2013, national and sub-national levels in the region have improved capacity to support the transition to low-emission and climate-resilient economies". CA-CRM assists the five Central Asian countries to adjust their national development processes to address risks posed by current climate variability and future climate change. CA-CRM seeks to strengthen the climate-related disaster risk reduction and adaptive capacity, promote early action and provide the foundation for long-term investment to increase resilience to climate-related impacts across the region.

At a national level, in each of the five countries, the Programme works to:

- strengthen institutional frameworks and technical capacity to manage climate change risks and opportunities in an integrated manner and develop climate-resilient strategies, policies and legislation in priority sectors and geographic areas;

- expand financing options to meet national climate change adaptation costs and implement climate change adaptation interventions in priority areas; and

- disseminate knowledge on how to incorporate climate change knowledge and risks into development processes at national, sub-national and local levels.

At the regional Central Asian level, the Programme focuses on:

- strengthening technical capacity to manage climate-related risks and opportunities;
- sharing knowledge on adjusting national development processes to fully incorporate climate-related risks and opportunities; and
- synthesising and further developing knowledge on glacial melting in Central Asia (completed in 2011).

EVALUATION PURPOSE

The objectives of this evaluation is to (a) identify project design and management issues, (b) assess progress towards the achievement of the targets, the results and impact, and use of resources (c) identify and document lessons learned (including lessons that might improve design and implementation of other UNDP projects), and (d) make recommendations regarding specific actions and project adjustments that might be taken to improve the project, and support needed to achieve intended impacts at the end of the Programme. It is expected to serve as a means of validating or filling the gaps in the initial assessment of relevance, effectiveness and efficiency obtained from monitoring.

This evaluation is initiated and managed by the UNDP Bratislava Regional Centre, its Representative Office in Central Asia (Almaty, Kazakhstan), and the UNDP Country Offices in Central Asian countries. The Regional Programme Management Unit (Almaty, Kazakhstan), and the corresponding UNDP COs and CRM Projects' management units in Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan will provide assistance and support to the evaluator by providing logistical support including arranging for meetings with stakeholders including, local governments, other agencies, Civil Society Organizations, etc.

Specific issues to be addressed include but are not limited to:

1. Project design and its relevance in relation to:

a) Development priorities at the regional and national level;

b) Stakeholders – assess if the specific needs were met;

c) Country ownership/drivenness – participation and commitments of government, local authorities, public services, utilities, residents;

d) Demonstrating increases in adaptive capacity or resilience of population in focus areas of interventions of projects under CA-CRM.

2. Performance - progress made by the CA-CRM projects relative to the achievement of its objective and outcomes:

a) Effectiveness - extent to which the project has achieved its objectives and the desired outcomes, and the overall contribution of the project to national strategic objectives;

b) Efficiency - assess efficiency against overall impact of the project for better projection of achievements and benefits resulting from project resources, including an assessment of the different implementation modalities and the cost effectiveness of the utilization of UNDP resources and actual co-financing for the achievement of project results; assess the contribution of cash and in-kind co-financing to project implementation;

c) Timeliness of results.

3. Management arrangements focused on project implementation:

a) General implementation and management - evaluate the efficiency of Programme management (with respect to its size and composition, organizational structure, qualifications of the project team members, and the team performance), including the effectiveness of partnership strategy and stakeholder involvement from the perspective of "good practice model" that could be used for replication;

b) Financial accountability – extent to which the sound financial management has been an integral part of achieving project results, with particular reference to adequate reporting, identification of problems and adjustment of activities, budgets and inputs;

c) Monitoring and evaluation at Programme level – assess the adoption of the monitoring and evaluation system during the project implementation, and its internalisation by competent parties and service providers after the completion of the project; focusing to relevance of the performance indicators.

4. Overall success of the project with regard to the following criteria:

a) Impact - assessment of the results with reference to the objective of the project and the achievement of Programme goals and objectives, changes brought about by the project intervention, (benefits and change at the policy level that contributes to sustainability, impact in private/ public and/ or at individual levels);

b) Sustainability - assessment of the prospects for benefits/activities continuing after the end of the project;

c) Changes: Establish any changes that may have resulted from the project implementation at this point;

d) Stakeholder participation: Review the mechanisms put in place by the project for identification and engagement of stakeholders and establish, in consultation with the stakeholders, whether this mechanism has been successful, its strengths and weaknesses. Particular attention should be paid to the level and type of participation by various stakeholders at different stages of the project implementation;

e) Contribution to capacity development - extent to which the project has empowered target groups and have made possible for the government and local institutions (municipalities) to use the positive experiences; ownership of projects' results;

f) Replication – analysis of replication potential of the project positive results in country and in the region, outlining of possible funding sources; replication to date without direct intervention of the project; assess whether the project has potential to be replicated based on implementation progress so far, either in terms of expansion or replication either in country or in other countries and/or regions and whether any steps are being taken by the project to do so and the relevance and feasibility of such steps; assess whether there are specific good practices that can be replicated and what has made them successful;

g) Synergies with other similar projects, funded by the governments or other donors.

In addition to a descriptive assessment, all criteria should be rated using the following divisions: Highly Satisfactory, Satisfactory, Marginally Satisfactory, Unsatisfactory with the following guidance for the rating:

Rating	Description
Highly Satisfactory (HS)	CA-CRM Programme is expected to **achieve or exceedall** its outcomes, major goals and objectives, and yield substantial benefits in terms of strengthening resilience of economies and population in CA, without major shortcomings. The Programme can be presented as "good practice".
Satisfactory (S)	The Programme is expected to achieve **most** its outcomes, major goals and objectives, and yield substantial benefits in terms of strengthening resilience of economies and population in CA, with only minor shortcomings.
Marginally Satisfactory (MS)	The Programme is expected to achieve **most** of its outcomes, major relevant objectives but with either significant shortcomings or modest overall relevance. The Programme is expected not to achieve **some** of its major goals and objectives.
Marginally Unsatisfactory (MU)	The Programme is expected to achieve **some** of its outcomes, major goals and objectives with major shortcomings or is expected to achieve only **some** of its major goals and objectives.
Unsatisfactory (U)	The Programme is expected **not to achieve most** of its outcomes, major goals and objectives or to **yield any satisfactory** benefits.
Highly Unsatisfactory (HU)	The Programme has failed to achieve, and is not expected to achieve, **any** of its outcomes, major goals and objectives with no worthwhile benefits.

Issues of special consideration

The Evaluation Report will present the experience and recommendations for the benefit of design and implementation of other similar regional programmes and projects. Especially, the aspects of developing resilience to climate change at all levels will be looked into, including the ways of improving the modalities to reduce vulnerability of economies and population to the long-term changes and current climate variability.

Identification of climate change adaptation and hydro-meteorological disaster risk mitigation measures including economic and financial mechanisms of risk transfer will be learned, based on this evaluation. Capacity for adaptation, communication and awareness-raising to support climate change adaptation, integration of climate change risk considerations and adaptation into policy and planning processes, as well as the specific management practices for natural resources to support adaptation to climate change, shall be specifically assessed.

For future development support in the region, UNDP is especially interested in the assessment of the support model applied in the project, its implications for the long-term impact and sustainability of the project results.

The Evaluation Report will present recommendations and lessons of broader applicability for follow-up and future support of UNDP and/or the Governments in CA, highlighting the best and worst practices in addressing issues relating to the evaluation scope.

EVALUATION METHODOLGY

An outline of an evaluation approach is provided below; however it should be made clear that the evaluator is responsible for revising the approach as necessary. Any changes should be in-line with international criteria and professional norms and standards (as adopted by the UN Evaluation Group). They must be also cleared by UNDP before being applied by the evaluator.

The evaluation methodology shall include information on documentation reviewed, interviews, field visits, and other approaches for the gathering and analysis of data. The

evaluation must provide evidence-based information that is credible, reliable and useful. It must be easily understood by project partners and applicable to the remaining period of project duration.The evaluation should provide as much gender disaggregated data as possible.

The evaluator is expected to consult all relevant sources of information, such as the CA-CRM Project Documents (both regional and national components), project reports – including Annual Progress Reports (APRs), project budget revision, progress reports, project files, national strategic and legal documents, and any other material that s/he may consider useful for evidence based assessment. The evaluator is expected to follow a participatory and consultative approach ensuring close engagement with the UNDP Country Offices in CA countries, government counterparts in the countries. Guidance on individual stakeholders will be provided by managers and staff of the corresponding projects under CA-CRM. All relevant project documentation will be made available by the project management teams.

Validation of preliminary findings with stakeholders will happen through circulation of initial reports for comments or other types of feedback mechanisms.

Throughout the period of the evaluation, the consultants will liaise closely with the senior management of UNDP COs in CA countries, Environmental Custer Managers in UNDP COs, UNDPRegional Technical Advisor in Bratislava, UNDP CA-CRM Regional Programme Coordinator, the concerned agencies of the Government and the counterpart staff assigned to the Programme. The consultants can raise or discuss any issue or topic it deems necessary to fulfil the task, the consultants however is not authorized to make any commitments to any party on behalf of UNDP or the Government.

DELIVERABLES

The output of the Mid-Term Review will be the Evaluation Report in English. The length of the Report should not exceed 50 pages in total (not including the annexes).

Initial draft of the Evaluation Report will be circulated for comments to UNDP (both CO and Regional Office) and the Programme Management. After incorporating the comments, the Evaluation Report will be finalised. If any discrepancies have emerged between impressions and findings of the evaluation team and the aforementioned parties, these should be explained in an annex attached to the final report.

One mission to Central Asia combining regional and all 5 national CRM Projects (including demonstrational sites) will be conducted.

The Evaluation Report template is attached in the Annex of this ToR.

TIMING AND DURATION

The mid-term review will be conducted within eight weeks (30 working days), starting from 1 April March to 31 May 2013, according to the following activities and time frames:

Preparation (to be conducted within the first 2 weeks in home office):

- Familiarisation with the project through related documentation and information;
- Design the detailed evaluation scope and methodology (including the methods for data collection and analysis);
- Develop work plan and discuss with UNDP for approval.

Mission to Central Asia (not more than 2 weeks, week 3-4):

- meeting with the CA-CRM Regional Programme Coordinator, international and national stakeholders in CA countries as per lists to be put together by managers of regional and national CRM Projects;
- visit to Programme'sdemonstrational sites in CA countries;
- present and discuss initial findings with UNDP, and the key national stakeholders;
- in order to save resources, distant media, e.g. online questionnaires, email, skype, etc., are to be utilised to the maximum extent

Elaboration of the draft report (within 3 weeks, weeks 5-7):

- Additional desk review;
- Completing of the draft report;
- Presentation of draft report for comments and suggestions;
- Additional information and further clarification with UNDP, Programme management and project staff.

Elaboration of the final report (within 1 week, week 8):

- Incorporation of comments and additional findings into the draft report;
- Finalisation of the report.

Management, Logistics and Accountability

The mid-term reviewer will work under the supervision of the UNDP Regional Technical Advisors from E&E and CPR Practices in Bratislava UNDP Regional Centre and CA-CRM Regional Programme Coordinatorin Almaty.

Although UNDP is administratively responsible for the conduction of the mid-term review, UNDP shall not interfere with analysis and reporting, except where requested and at opportunities for comments/feedback. UNDP will share the final version of the mid-term review report with the National stakeholder agencies.

PAYMENT SCHEDULE

The consultant fee will be as per UNDP norms and will be commensurate with qualifications and experience.

I on signing of contract – 20% of the total value of the contract;

II on submission of draft report – 50% of the total value of the contract;

II. on acceptance of final report – 30% of the total value of the contract.

REQUIRED QUALIFICATION

- Advanced university degree in technical, economics or environment related issues;
- Recent experience with result-based management evaluation methodologies;
- Recent experience in evaluation of international donor driven projects;
- Experienced in project cycle management
- Recognized expertise in the field of natural resource management and vulnerability and adaptation studies (V&A), including coastal adaptation, climate risk management, and/or disaster risk reduction;
- Familiarity with issues of disaster risk reduction in Central Asia, Europe or Caucasus
- Work experience in relevant areas for at least 8 years;
- Conceptual thinking and analytical skills;

- Advanced skills in analysis, reporting, facilitation of meetings, and team coordination
- Project evaluation experiences within United Nations system will be considered an asset;
- Excellent English communication skills, working level of Russian languages;
- Computer literacy.

The evaluator must be independent from both the policy-making process and the delivery and management of assistance.

Annex 2: List of people consulted

Tajikistan, 3-6 July 2013

Time	Activity	Participants	Venue
03 July 2013			
10:00	Arrival to Dushanbe, Tajikistan from Almaty, Kazakhstan to Dushanbe on 03/07/2013. Arriv. Time 10:00.	Khurshed, Firuz	
11:00 – 17:00	Leaving to Project sites, Gissar (Umarali Abdulov, head of JRC "Khonakoi Kuhi"), Shahrinav (Gulshan Karimova, Head of JRC "Sabo").	Khurshed, Firuz	Field trip
04 June 2013,			
09:00 – 10:00	Meeting with Mr.Khurshed Kholov, Energy and Environment Programme Manager/CRM project Manager. Mr. Firuz Ibragimov, CRM National Coordinator	Khurshed, Firuz	Energy and Environment Programme office
10:00 – 11:00	Meeting with Mr. Ziyoratsho Sadullo, Member of the legislative and expertise working group, Parliament of Tajikistan	Khurshed, Firuz	Energy and Environment Programme office
11:00 – 12:00	Desk work	Khurshed, Firuz	Energy and Environment Programme office
12:00 – 13:00	Lunch	Khurshed, Firuz	TDM
13:00 – 14:00	Meeting with Mr. Ismatov Azizullo, chairman of the State Agency for Forestry and Hunting Mr. Madibron Saidov, Deputy Director of the State Agency for Forestry And Hunting	Khurshed, Firuz	State agency for forestry and Hunting
14:00 – 15:00	Ms. Nailya Mustaeva, UNDP Programme Analyst.		
15:00 – 16:00	Meeting with Mr. Isroilov Sojoudin, chairman of the legislative and expertise working group.	Khurshed, Firuz	Ministry of Agriculture
16:00 – 16:30	Meeting with the Chairman of the Micro Loan Foundation "Imdodi Rushd" Mr. Zokirjon Rahmonov. Mr. Rahimjon Shamsudinov, credit officer	Khurshed, Firuz	Ministry of Agriculture
16:30 – 17:30	Meeting with Mr. Shodibek Kurbonov, Head of dept. on Forestry and Protected Areas, Committee for Environmental Protection.	Khurshed, Firuz	Energy and Environment Programme office
17:30 – 18:00	Meeting with Ms. Svetlana Jumaeva, NGO Center for Climate change and Disaster Reduction.	Khurshed, Firuz	Energy and Environment Programme office
18:00 – 18:30	Desk work and meeting with E&E programme Manager, wrap up and preliminary sharing of findings of MTE.	Khurshed, Firuz	Energy and Environment Programme office
05 June 2013			
09:00 – 17:00	Departure Dep. 02:15am to Frankfurt, Germany.	Khurshed, Firuz	UNDP E&E Programme

Kazakhstan, 30 June – 3 July, 2013

#	Name	Organization	Position	Contacts
1.	Mr. Bolat Bekniyz	Ministry of Environmental Protection	Adviser of Minister, UNCCD Focal Point	+7-7172 79 81 96 bbolat@mail.ru

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Uzbekistan

#	***Name***	***Organization***	***Contact details***
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		recommendations on adapting approach to climate risk assessment	
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Kyrgyzstan

#	*Name*	*Organization*	*Contact details*
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6	Anna Kirilenko	Gender Expert, CRM Project in Kyrgyzstan	annakir7@gmail.com
7	Alexandr Temirbekov	contacted but not available	
8	Janyl Kojmuratova	Camp Alatoo, contacted but no response	

Turkmenistan

#	*Name*	*Organization*	*Contact details*
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4	Nazar Korpeyev	Local consultant on capacity assessment	(99365) 853166; nazarkorpeyev@mail.ru

Programme Management

#	*Name*	*Organization*	*Contact details*
1	***Martin Krause***	Energy and Environment Practice Leader UNDP Europe and the CIS, Bratislava Regional Centre	Grosslingova 35, 811 09 Bratislava, Slovak Republic Tel: +421 2 59 337 214 Mob: +421 911 696 573 Fax: +421 2 59 337 450 martin.krause@undp.org europeandcis.undp.org
2	***Michael Thurman,***	Practice Coordinator/Portfolio Manager a.i., Crisis Prevention and Recovery, ECIS, United Nations Development Programme Regional Centre for Europe and CIS,	Grosslingova 35, Room 202, Bratislava, Slovak Republic 81109, Phone: +421 259 337, ext. 425 Mobile: +421 911 330 322
3	***Anna Kaplina***,	E&E Programme Specialist on CCA	
4	***Yegor Volovik***	Regional Programme Coordinator, UNDP Central Asian Climate Risk Management Programme (CA-CRM),	Tole Bi Str. 67, Almaty, 050000, Kazakhstan Email: yegor.volovik@undp.org, yegor@volovik.net (private), Tel.: + 7 (727) 312 26 43 ext. 1551, Fax: +7 (727) 312 26 45, Mob.: + 7 (705) 841 03 30.

Annex 3: CA-CRM Funding Distribution / Co-financing

As of January 2013

N	Amount (US$)	Timeframe	Funding source	Funded item
1	500,000	2010-2014	Reg TRAC	implementation of the regional project
2	202,000	2010-2011	Finland	implementation of the glacier sub-component
3	820,000	2010-2014	BCPR[15]	Regional Programme Coordinator
4	180,000	2010-2014	BCPR	implementation of the regional project
5	600,000	2010-2014	BCPR	implementation of the CRM in Kazakhstan project
6	600,000	2010-2014	BCPR	implementation of the CRM in Kyrgyzstan project
7	600,000	2010-2014	BCPR	implementation of the CRM in Tajikistan project
8	600,000	2010-2014	BCPR	implementation of the CRM in Turkmenistan project
9	600,000	2010-2014	BCPR	implementation of the CRM in Uzbekistan project
10	200,000	2010-2014	UNDP Uz	National Project Management
11	80,000	2010-2014	UNDP Kz	National Project Management (in-kind)
12	92,415	2010-2014	UNDP Tj	National Project Management
13	30,000	2011	UNDP Tj	NGO for local level awareness raising activities
Additional funding mobilized:				
14	30,000	2012	UNDP Tj	Mgmt planning protected areas
15	35,800	2013	UNDP Tj	Forest and Pasture management planning
16	1.102.628	2013-2014	USAID	Implemented by CRM Project in KZ (557K) and regional Project (541K)
17	124,596	Feb 2012-Mar 2013	CDKN	Implemented in cooperation and through CampAlatoo, KG with full technical coordination by UNDP CA-CRM Regional Project
18	235,331	2013-2015	EC IfS	A part of a larger project for CA, Eastern Europe and South Caucasus,

[15] Out of $ 4,000,000 allocated by BCPR, approx. $815,928 was calculated to be needed to cover P4 position costs in Almaty ($820,000 having in mind potential currency and other changes). Thus $3,180,000 would be available for the actual project implementation in 5 countries and on the regional level. It was suggested that each CO receives $600,000 and the regional project receives an additional $180,000.

				UNDP focus - Central Asia
19	118,000	2011	Various	Various partners - cost-sharing of activities
20	47,900	2012	Various	Various partners - cost-sharing of activities (see further in the report for details)

Annex 4: Evaluation Design Matrix

Criteria/Sub-Criteria	*Main Questions to be Addressed*	*What to Look For*	*Data Sources*	*Data Collection and Analysis Methods*
1. **Programme design and relevance:** The extent to which the regional and national components of the programme are relevant to the priority development challenges and the emerging needs of the region.				
Thematic relevance	To what extent the programme is aligned with the development priorities and the needs in the region and within each target country?	Alignment of the programme priorities with the UNDP regional and country programme documents; national strategic priorities on climate and disaster management within the target countries.	Review of reference material Face-to-face interviews Country case studies	National and regional strategic documents
	To what extent the components of the programme strengthen the adaptive capacities at national and regional levels?	Identification of adaptive capacities at national and regional levels with respect to climate and disaster risk management.		
	What factors facilitate or obstruct the overall programme relevance?	Identification of factors contributing to the degree of relevance.		
2. ***Programme performance: Effectiveness:*** The extent to which the programme has contributed (or is likely to contribute) to the realization of the intended objectives at regional and national levels?				
Results achieved to date and quality	To what extent the expected results of the programme are achieved at regional and national levels?	Description of output statements (results framework) as defined in the programme document	Review of reference material Face-to-face interviews	Programme reports Stakeholder interviews Observations Other relevant evaluation

	-Capacity development (institutional and technical) -Knowledge sharing and partnership -Innovative financing -CRM measures			
	What factors have contributed to the level of the results achieved at both regional and national levels?	Identification of factors contributing to the level of results realized.		
	Have there been significant unintended results?	Identification of significant unintended results achieved compared to the theoretical results chain.		
3. Programme performance: Efficiency: The extent to which the regional and national components of the programme have made appropriate use of its financial and human resources.				
Programme efficiency	To what extent have the approaches used in delivering the programme been appropriate in achieving the objectives? What could have been done differently? Were known good practices followed in the development work?	Identification of different approaches used in the target countries to deliver the programme results. Evidence how these approaches contributed to achieving the programme objectives.	Review of reference material Face-to-face interviews Country case studies	Programme reports Stakeholder interviews Observations Other relevant evaluation reports of national and regional initiatives
	Were the resources focused on the set of activities that were expected to produce significant results?	Evidence on the balance between the resources invested and the results achieved.		
	To what extent are the country offices satisfied with the technical support provided by the Programme Management Team?	Definition of the timeliness and quality of the technical support provided to the country teams.		

	Has there been any identified synergy between the programme and other interventions that contributed to reducing costs while supporting results? To what extent have partnerships with relevant development partners (including donors, private sector, government, CSOs, country offices) been developed and exploited?	Identification of relevant partnerships established to generate synergy in results produced.		
	What factors have influenced the level of Programmatic efficiency?	Identification of critical factors contributing to the degree of efficiency		
4. Sustainability, Synergy, and Replication*:* The likelihood that the results achieved through the regional and national components are sustainable, generate synergy across the region and/or across other relevant initiatives, and provide a suitable basis for national or regional up scaling.				
Design for sustainability	Are the achievements observed to date likely to be sustained after the programme completion?	Evidence of the sustainability of the support model applied in the programme. Evidence of integration of climate change risk considerations and adaptation into policy and planning processes.	Review of reference material Face-to-face interviews Country case studies	Programme reports Stakeholder interviews Observations Other relevant evaluation reports of national and regional initiatives
	Does the programme include a clear 'exit strategy'?	Evidence of the extent to which the Programme implementation takes the 'exit strategy' into account.		
	What factors have influenced the level of sustainability? What main changes have been	Identification of critical factors contributing to the level of sustainability.		

	triggered by the programme?	Evidence of the changes triggered by the programme.		
National Ownership	What is the degree of national/local ownership of the regional and national components of the programme? How can national ownership be improved?	Evidence of who holds ownership of the process and the results of the programme. Extent to which the programme has empowered the target groups.		
Potential for Scaling Up	Has any scaling up been designed (intended) into the regional or national components of the programme?	Evidence of elements in the programme with potential for the up scaling of local interventions at the time of the evaluation.		
	Has the implementation of any CRM/DRR measures in the programme resulted in cross-country replication among the programme partners?	Evidence of the initiatives that have been replicated across the region or in the target countries. Evidence of replication at national and regional levels to date without direct intervention by the programme.		
	To what extent has knowledge transfer fostered South-South cooperation?	Define significant elements of South-South cooperation that ensure knowledge exchange between the partners.		
5. Management arrangements: the extent to which the programme management arrangements support timely, efficient and good quality implementation of the programme.				
Stakeholder participation	To what extent do the mechanisms of stakeholder engagement fit the purpose? What are the successes and	Identification of the mechanisms of stakeholder engagement and their applicability.	Review of reference material Face-to-face interviews Country case studies	Programme reports Stakeholder interviews Observations Other relevant evaluation reports of national and regional

	challenges of the participation of various stakeholders at various stages in the Programme implementation?			initiatives
Managerial efficiency	To what extent has the programme been implemented with an appropriate level of staffing and funding? Where the main challenges were encountered with respect to budget, timing, and the quality of the deliverables? And how they were resolved?	Evidence of financial and human resources used for the programme. Evidence of how the challenges encountered with respect to budget, timing, and the quality of deliverables were addressed.		
	To what extent the reporting mechanisms in the programme facilitate effectively filtered and timely information exchange?	Evidence of the effectiveness of the reporting mechanisms.		
	Are the partners familiar with the monitoring and evaluation arrangements for the programme?	Evidence of the effectiveness of the M&E system.		
	To what extent the country offices provided the necessary support for the implementation of the country components of the programme?	Evidence of the level of support received by the programme from the country offices.		

Guidance for the Rating

Rating	Description
Highly Satisfactory (HS)	CA-CRM Programme is expected to **achieve or exceed all** its outcomes, major goals and objectives, and yield substantial benefits in terms of strengthening resilience of economies and population in CA, without major shortcomings. The Programme can be presented as "good practice".
Satisfactory (S)	The Programme is expected to achieve **most** its outcomes, major goals and objectives, and yield substantial benefits in terms of strengthening resilience of economies and population in CA, with only minor shortcomings.
Marginally Satisfactory (MS)	The Programme is expected to achieve **most** of its outcomes, major relevant objectives but with either significant shortcomings or modest overall relevance. The Programme is expected not to achieve **some** of its major goals and objectives.
Marginally Unsatisfactory (MU)	The Programme is expected to achieve **some** of its outcomes, major goals and objectives with major shortcomings or is expected to achieve only **some** of its major goals and objectives.
Unsatisfactory (U)	The Programme is expected **not to achieve most** of its outcomes, major goals and objectives or to **yield any satisfactory** benefits.
Highly Unsatisfactory (HU)	The Programme has failed to achieve, and is not expected to achieve, **any** of its outcomes, major goals and objectives with no worthwhile benefits.
Highly Satisfactory (HS)	CA-CRM Programme is expected to **achieve or exceed all** its outcomes, major goals and objectives, and yield substantial benefits in terms of strengthening resilience of economies and population in CA, without major shortcomings. The Programme can be presented as "good practice".

Annex 5: Partnerships established by the programme at regional and national levels

Regional level:

Activity Result	Partner	Partner's project	Description of joint efforts	Comments (if any)
Various activities of regional nature	UNDP CO in CA countries	National CRM Projects under CA-CRM in 5 CA countries, through these projects - all national stakeholders	Regional children's contests, South-South cooperation, study tours, joint activities by more than one CRM Project	It remains a priority of CA-CRM to act as a regional platform for cooperation with CA countries supported by all national CRM projects
CA Wheat Project, glacier research	USAID	CA Regional Office	Project on wheat production in Kz and CC-related implications for CA regional food security (Regional Project + KZ), glacier research, joint meetings and workshops	This project was included in CA-CRM in 2012 as a result of resource mobilization activities
Pilot adaptation and risk reduction measures, land use practices and agro-technologies	GTZ	GTZ CA Office	Extensive cooperation was established with a regional UNDP Project completed in Dec 2012. GTZ-co-funded project on sustainable land management in CA (CACILM). A number of lessons learned, best practices, etc. have been discussed and used in individual CRM projects.	GTZ recently started a regional CC-related project in CA. Strong cooperation links have been established with both GTZ office and project team.
ENVSEC Desk Office for CA, Transboundary basin vulnerability assessment (Chu-Talas), OSCE-led EC project on security implications of CC	ENVSEC (UNDP, UNEP, UNECE, CAREC, OSCE)	ENVSEC Coordination Unit (Geneva), Focal points in each of partner-agencies	CA-CRM Regional Programme Coordinator (RPC) was nominated by BRC as a technical focal point from UNDP for ENVSEC activities in CA. Supported by Michael Thurman as a member of ENVSEC Management Board, a number of additional activities are planned in 2013 for UNDP CA Desk Office - scoping missions to CA countries, etc. In addition, a number of activities implemented through ENVSEC initiative is included under CA-CRM and, therefore, coordinated by CA-CRM RPC.	
Activity Result	**Partner**	**Partner's project**	**Description of joint efforts**	**Comments (if any)**

Payment for Ecosystem Services in CA	PEI (UNDP-UNEP)	PEI UNDP Coordination office (BRC)	A study tour and a feasibility study were implemented with PEI in Kyrgyzstan. Despite the results of the study implementation in KG was NOT recommended. This was a very useful exercise.	
Development of Climate Risk Assessment Methodology	CDKN	Pakistan Asian Office	Development of a regional and national level climate risk assessment. The methodology was show-cased at the CDKN Global Learning Forum (June 2013). Results presented at a number of international conferences and meetings.	This project was included in CA-CRM in 2012 as a result of resource mobilization activities. NGO Camp Alatoo (KG) acted as the main co-implementation organization
	GTK (Geological Survey of Finland)	Head office, as well as CA Project on geological mapping in CA	A joint workshop to discuss general cooperation in CA was held in 2012. In addition, GTK continues to provide support to CARRA	Brought in by CA-CRM as a result of resource mobilization activities, GTK also discussing a number of initiatives with BRC CPR Practice Leader Michael Thurman
Vulnerability Assessment of the Chu Talas Transboundary Basin	UNECE	European Office in Geneva	In addition to the line above on ENVSEC, a separate partnership was established with UNECE on implementation of a project on Vulnerability Assessment of the Chu-Talas Transboundary River Basin. Until Dec 2012 cooperation was also supported by UNDP CA IWRM Programme, however, when IWRM Programme was phased out in 2012, CA-CRM has remained a UNDP counterpart.	
CARRA	UN OCHA	CA Sub-Regional Office	Supported and contributed to CARRA 2011, 2012	
	UNISDR	CA Sub-Regional Office		
Activity Result	**Partner**	**Partner's project**	**Description of joint efforts**	**Comments (if any)**
Climate Risk Management Training Course	WMO	WMO Eurasian Climate Centre	Providing training on meteorological aspects of CRM.	
	NGO Camp Alatoo	Kyrgyzstan, Bishkek	Provided training at sessions on local level assessments and engagement	
	UzHydromet	Uzbekistan, Tashkent	Provided training at various sessions during CRM Training in Uzbekistan and Turkmenistan	

	Institute of Georgaphy of Kazakhstan Academy of Science	Almaty, Kazakhstan	Supported and co-funded training in 2011 for young glaciology scientists from all CA countries.	
Various public awareness and stakeholder engagement activities	GEF SGP	GEF SGP in Kazakhstan, Tajikistan, Uzbekistan	Implementation of pilot measures in CA countries also supported and co-funded by SGP Projects.	
	Regional Environmental Centre	CAREC office in Almaty	A number of activities, e.g. ENVSEC projects, a regional meeting in Tashkent in Nov 2012, etc.	
Organization and holding of Mountain-Hazards -2011 conference	UNDP KZ	«DIPECHO VI EC-UNDP Project	The conference was successfully held in Dushanbe	Co-funding
	UNDP-Czech Trust Fund	Adygine Foundation, Czech Republic	The conference was successfully held in Dushanbe	Co-funding (hiring a Czech consultant to facilitate preparation and holding of the Conference)
	UNESCO	UNESCO CA Regional Office	Co-sponsorship of the Conference	Co-funding and support in organization
Preparation of publications related to glacier studies in CA	ENVSEC (UNDP, UNEP, UNECE, CAREC, OSCE)	UNEP	The conference was successfully held in Dushanbe	Two major reports within AR 3 were prepared by UNEP

Kazakhstan:

Activity Result	**Partner**	**Partner's project**	**Description of joint efforts**	**Comments (if any)**
AR 2. 2.1. Implement Climate risk management interventions in priority sectors in Almaty Oblast (water, agriculture and disasters)	UNDP GEF small grant program	-	Introduction of pilot projects. Search for potential grant applicants, meetings on the issues of application submissions. Development of project proposals: analysis of problems, gathering of ideas, development of concrete measures, defining required investments.	Five projects in Almaty region and 1 project in Kyzylorda region have been started and are being implemented. The development of 10 projects in Kyzylorda region is expected. Approval of the applications is expected in October 2013
AR 1. 1.4. Strengthen technical capacity in	European Union, UNDP (donors), Water Resources Committee	The Project "Promoting Integrated Water Resources Management	Organization of joint workshops, development of a database on the Ily River to forecast the flows, including hydrological and hydro chemical	Training on the issues of climate change have been conducted for "KazHydromet" RGP. The equipment and the software has

Activity Result	Partner	Partner's project	Description of joint efforts	Comments (if any)
the field of monitoring and modeling of climate change and climate risks	of the Ministry of Environmental Protection (National Executive Agency)	(IWRM) and Fostering Transboundary Dialogue in Central Asia" (at the moment the project has been realized)	information and designing a map on Almaty Region of scale 1: 5 000 000	been delivered.
AR 3. 3.2. Collect and disseminate lessons learned from the project	"Akbota" NGO	-	Strengthening the capacity through workshops and Training on the use of water saving technologies in agriculture, experience sharing and climate risks management	Experience sharing for women, the farmers. Replication and application of the experience on drop irrigation in Kyzylorda region.
AR 3. 3.2. Collect and disseminate lessons learned from the project	"Coca-Cola" Company	-	Joint actions on awareness raising in the field of water saving	Implementation of 6 projects on water saving for schoolchildren (organization of Central Asian competition "Insight into EXPO 2017" for youth)
AR 1. 1.6. Deliver training programmes on CRM through existing or new channels (e.g. in relevant ministries and in relation to IWRM)	-	The project "DIPECHOVII: Disaster Risks Reduction on Community Level in South-East and East Kazakhstan"	Strengthening the capacities of all stakeholders related to emergency situations and adaptation to climate change	Organization of a workshop for the heads of Kazagroinnovation JC extension centers. Development of a module on rangeland management and joint efforts to improve the agro-insurance system are planned
AR 1. 1.4. Strengthen the technical capacity in the field of monitoring and modeling of climate change and climate risks	"KazAgroInnovation" JSC (National Executive Agency), the US Agency for International Cooperation (donor), National Institute on Space Research	USAID Project "Improving the Climate Resiliency of Kazakhstan Wheat and Central Asian Food Security"	Organization of joint meetings on the issue of improving mid-term and long-term forecasting services. Improving access to forecast data for farmers.	A joint work plan on improving the quality of the services provided by "KazHydromet" RGP has been developed. A protocol on joint activities between the projects, the "KazHydromet" RGP and the Institute on Space Research has been signed

Activity Result	Partner	Partner's project	Description of joint efforts	Comments (if any)
AR 3. 3.1. Disseminate information and materials on CRM at different levels through creative approaches	The World Bank (donor), the Forestry and Hinting Committee National Executive Agency	The World Bank Project "Forest Protection and Reforestation on the Territory of the Republic"	Organization of workshops, dissemination of positive practices on small grants program of the World Bank and other projects implemented in Kazakhstan and in CA.	The capacity of local communities and associations in the field of introduction efficient agricultural practices allowing reducing climatic risks strengthened
AR 1. 1.2. Integrate CRM into key policies, strategies and legislation on water resources management, disaster risk reduction and agriculture	Ministry of Environmental Protection of the RK "MakKensey" International Company	UNDP Project "Assistance to the Republic of Kazakhstan in strengthening the interregional cooperation for "Green Growth" promotion and Astana Initiative implementation"	The Strategy of the Republic of Kazakhstan on the Transition to "Green" Economy	
AR 1. 1.1. Establish mechanisms to facilitate climate risk management decision-making and action in Almaty *oblast* (e.g. through building on existing coordination bodies in relation to Almaty Akimat)	Balkash-Alakol Basin Council of Almaty Region.	-	Organization of dialogue meetings on various issues concerning the problems of water resources management in Almaty region twice a year.	The goal of the Basin Council is to improve the efficiency of water resources management in the republic. This is to be achieved by improving mutual understanding between managing bodies on water issues, including basin water management departments (BWMD), and representatives of various water users. The main issues within the competency of the Council: - defining the limits of water resources withdrawal from water bodies; - securing safe operation of water management systems; - defining the main targets on the reduction of flood adverse impacts and other types of water adverse impacts

Kyrgyzstan:

Activity Result	Partner	Partner's project	Description of joint efforts	Comments (if any)
Activity Result	Partner	Partner's project	Description of joint efforts	Comments (if any)
Activity Result 1: Enabling environment created for integration of climate risk management (CRM) at system, institutional and individual level	UNDP	• UNDP Environment Protection for Sustainable Development Programme • UNDP Disaster Risk Management Programme	• Development of National Strategy on Climate Change Adaptation and training for civil servants • To cooperate on implementation of practical activities in Suusamyr Valley and training for civil servants	
Activity Result 3: Climate resilient pasture management demonstrated in the Suusamyr Valley	CAREC Kyrgyzstan UNEP/UNDP	UNEP/UNDP "Poverty and Environment Initiative" Project (PEI)	CRM Project reached agreement with CAREC to participate in the study tour to Vietnam on Payment for Ecosystem Services. CRM Project joined the study tour by sending two representatives from Suusamyr AO who will then help to develop PES concept at local level. In cooperation with PEI a feasibility study on Payment for Ecological Services (PES) on the example of Kokomeren/Naryn water basin will be undertaken	

Turkmenistan

Activity Result	Partner	Partner's project	Description of joint efforts	Comments (if any)
Effective use of climate risk information demonstrated in rural communities with typical climatic zones	Adaptation Fund project	Addressing climate change risks to farming systems in Turkmenistan at national and community level.	Carrying out joint assessment at 3 demo sites within the scope of work of climate risk and vulnerability assessment.	The results of this assessment will also be used by the Adaptation Fund project.

Annex 6: Brief overview of the CRA methodology

Some general points

1. It is to assume that the Climate Risk Profile conducted in Kyrgyzstan is based on the CRM methodology. However, according to the number of references made to the Climate Risk Profile of Kyrgyzstan in the CRM methodology itself, the methodology is actually significantly based on the Climate Risk Profile. The logical question is which document comes first?

2. Hoping that the development of the draft CRM methodology is a result of a broad consultative process across the region, it is surprising to note that out of 14 authors mentioned a significant part represented by administrative staff (project coordinators, assistance, communication specialist), with only one representative from KazHydromet and not a single representative from the Ministry of Emergency Situation (either Kz or Kg).

3. Links between weather events and disasters is a complex phenomena, non-linear by nature and the risk assessment of such disasters and their impacts to livelihoods require the highest professional level and a deep understanding of the problem. The recent "Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation (SREX) report (Intergovernmental Panel on Climate Change)" was a global attempt to understand the links between a changing climate and extreme weather events and disasters that clearly illustrates the complex nature of the phenomena. Therefore, the authors' conclusion that the risk assessment process at the local level can be done very simply, "without extensive teams of experts» (Climate Risk Assessment Guide - CRAG, p.3) seems disputable.

4. The authors often use terms or a combination of words without definitions that strongly impede clarity of the document. For instance: short and long term climate-related hazards; climate events; climate-related events, climate-related hazard events, climate risks, climate-related risks, climate hazard and risks, disaster-related climate risks, climate-related disasters, hazards management, climate-crop impacts, threat of climate-links hazards and impacts, local climate-related impacts, climate-related events, climate factors, short term climate risk, longer term risks related to a changing climate, climate change impacts, climate variability and change impacts effects, climate-related risks for females, disaster event, risk statements.

Overview of the proposed assessment process

The proposed assessment process raises a number of questions and comments. Herewith only few of them:

1. «... To limit the scope of the Guide, the focus is on the negative outcomes of risks ...». (CRAG, page 11). Why? Climate change is not only negative consequences, but for instance in Kyrgyzstan, higher temperatures means prolongation of tourist season in Issyk-Kul, for Kazakhstan – shift of grain

crop belt to the north where the climate is more humid. Probably the answers on climate risk perception would be quite different if designed questionnaires reflected the whole picture related to climate changes and their consequences.

2. Perception study: it is a valid point to address population perception on climate risk to inform public awareness strategies. However, perception study can hardly be used to inform the assessment of the climate risk. Yet, it can be used as a supplementary tool for those who want to address awareness issues. Moreover, the methodology can have additional supplementary tools to address important issues such as role of local authorities in managing climate risk, role of youth in managing climate risk, or role of farmers in managing climate, etc.

3. "… The preference is for as long as possible data sets (e.g., 30 years) for a better correlation assessment, and to identify whether there have been any changes in climate or event trends over time. At a minimum, ten years of data should be used ... "(CRAG, page 34). At a minimum 30 pairs of values needed to operate by reliable and statistically significant conclusions. WMO uses 30-year period for climate definition and calculation of averages.

Comments on Short Period Data Section

1. The statement on p.37 sais:«...The results are indicative and not statistically significant and have limited predictive value...» creates an impression that it is still possible to use short series of observations to produce some valid results that can be «indicative» or results with "limited predictive value". From a practical point of view, such data handling can cause real damage if someone, based on the recommendations of this section, will make a decision, for example, to build a house without insulation, since the last 3-4 winters were warm than usual.

2. «... Defining expected links between hazard events and climate parameters, e.g., precipitation and flooding ...» (CRAG, page 34). It is very important to point out that the links between hazard events and climate parameters could be found in same watershed or plot only. Comparison of the number of floodings or flashfloods in one watershed with precipitation measured in other basin is methodically and logically wrong.

3. ***Several issues related to Table 2. . (CRAG, page 34).***

1. Quality of the Table 2 data: was it assessed and/or verified? According to reference in the document, data have been taken from “Kyrgyzstan Climate Risk Profile Report”, CAMP Alatoo (2013). But there is no clear reference to data source in the CAMP report.

2. It is very surprising that in table 2 that lists disaster events in Batken province for 2000 – 2010 period, no cases of heavy rains, mudflows, natural fires are taken into consideration in table 2. In contrary, the Ministry of Emergency of the Kyrgyz Republic (MoES) placed district aggregated

disaster data for 2000-2009 years at http://reach-initiative.kg site, supported by ACTED. According to the MoES data more than 100 mudflows occurred in Batken province for 2000-2009 years.

3. What physical process links rainfall amount (where measured?) and number of cases of strong wind and hail (registered within the administrative unit)?

4. If the disaster data presented in the table are based on the territorial unit (oblast), the question remains how the data on rainfall were calculated for the same territorial unit, namely Batken oblast. There are basically two approaches to do that:
   - either though calculating average of the values of the several weather situations (which is methodologically not correct given the low number of number of stations)
   - selection of the most representative station that correlates best with the rest ones in the given territorial unit; only then it is possible to extrapolate data for the whole territorial unit.

   The Guide does not provide clear indication to which approach was used with respect to the data in Table 2.

4. Following the same logic: how the standard precipitation index (CRAG, page 35) was calculated for the oblasts? The same question: was representativeness analyses *done or data* of the randomly selected weather station was used?

Some comments on long-period data section

1. In tables 11-12 (CRAG, page 35, with unclear numbering) it is not clear what was calculated: losses or damage data. Without such clarification, the tables has little added value. Since the tables referrer to the “total estimated damage” in Kyrgyzstan for 2000-2010, it would be useful to use the results with the data published in UNDP publication "Sampling Survey of Living Standards ....", Bishkek, 2005. This publication shows the statistics of losses from 18 hazard types to humans, infrastructure, residential houses and etc. About 1,000 cases in 1989-1999 were analyzed in the publication.

2. (CRAG, p.38). Map shows wrong boundaries of Chui oblast, misspells the names of the two other oblasts and, there is no Issyk –Kul lake on the map (as well as other large water bodies Toktogul reservoir, Son -Kul and Chatyr-Kul).

3. Climate Risk Assessment GIS Platform Summary (CRAG, page 71). There is no argumentation why the specific set of layers have been chosen (for instance, why it is important for climate risk assessment to have Peak ground acceleration layer?) and how the set will be used at the local level, if the most of these layers are based on regional data level.

Some questions and comments on Kyrgyzstan Climate Risk Profile (KCRP)

1. «... The Profile focuses on disaster-related climate risks and climate-related impacts on key crops and related livelihoods ...» (KCRP, page 6) It is very difficult to understand this sentence.

2. Wrong map (KCRP, page 6).

3. "..With respect to livelihood impacts on females, Osh Oblast scores highest ..." (KCRP, page 6). It is unclear how authors could manage to assess separately livelihood impacts on men, women and general population and find province level differences. If authors just divided number of emergencies per men and women population within oblast, it hardly defines “livelihood impacts on females”.

4. The statement on “The report notes that some disasters (eg, landslides) have disproportionally affected women in the past. ... "(KCRP, page 17) contradicts another statement on the same page below "... Gender-disaggregated data in disaster impacts was not available, and a differential assessment of risk could not be performed ..."?

Question and comments on Climate-Disaster Correlations Section

In climatology and meteorology year is divided into cold and warm periods: the cold period starts from 1October to 31 March or from 1 November to 30 April and the warm period starts from 1 April to 30 September or from 1 May to 31 October. Therefore, it is unclear why the authors proposed to sum solid and liquid precipitation for January- July and June-December (Table 2 - 8).

Questions and comments on Precipitation and Crop Production Correlation Section (KCRP, page 26)

1. Conclusions on the same page contradict each other (KCRP, page 27):

"... Table 9 summarizes the results of the analysis. Broadly speaking, there are no strong correlations between SPI and yield per hectare or between SPI and price per ton except for Talas Oblast for SPI-Yield, and Jalal Abad and Osh Oblasts for SPI-Prices ... " ***and*** "... Cells in the table marked in grey indicate a strong correlation between SPI and yield ..."

2. An additional point which is not disclosed by the authors. Mathematically, the standard precipitation index (SPI) is based on the cumulative probability of a given rainfall event occurring at a station. It is not clear which of the weather stations was selected to calculate SPI and how this weather station is representative for the precipitation distribution in the Chui and Talas valleys.

Annex 7: Overview of events and monitoring missions organized by the Regional Programme Coordinator

1. Inception workshop, Regional PB meeting - Feb 2011
2. Regional Meetings of CA-CRM PMs and staff: Feb 2011, March 2012, Dec 2012, April 2013
3. Monitoring missions of Regional Programme Coordinator to CA countries:
2012:

1. Kazakhstan: March 19-20, 2012 (only main office)
2. Uzbekistan: March 26-30, 2012 (main office and field demo area)
3. Kyrgyzstan: May 17-18, 2012 (only main office)
4. Kyrgyzstan: 3-4 Sept, 2012 (only main office)
5. Tajikistan: 25-28 Sept, 2012 (main office and field demo area)
6. Uzbekistan: 15-16 Nov, 2012 (only main office)
7. Turkmenistan: 20-24 Nov, 2012 (only main office).

2013:

1. Turkmenistan: 7-8 Feb 2013 (only main office)
2. Kyrgyzstan: 25 Feb - 1 Mar 2013 (only main office)
3. Uzbekistan: 2-7 June 2013 (main office and field demo area)

4. Thematic Meetings attended/participated/contributed to:
2011:

1. CRM Training Course 23-25 Feb 2011
2. National Inception Workshop KZ 20-22 Feb 2011
3. National Inception Workshop KG 27-28 Feb 2011
4. National Inception Workshop TJ 17-18 March 2011
5. National Inception Workshop TM 23-24 March 2011
6. National Inception Workshop UZ 12-13 Sept 2011
7. CARRA 2011
8. WMO Meeting of EuroAsian Climate Centre, Moscow 17-19 May 2011
9. Climate Change in CA - Berlin 20 June 2011

10. SGP Round Table 29-30 June 2011
11. GRIP CRA Training 14-16 Sept 2011 Almaty
12. Mountain Hazards 19-21 Sept 2011
13. Environment for Europe Conference Astana Sept 2011
14. E&E CoP Bratislava
15. BCPR CoP Armenia Oct 14-16 2011
16. SGP Regional Round Table
17. International scientific conference, Problems of Adaptation to Climate Change (PACC), Moscow 7-9 Nov 2011
18. CRM Training Almaty 21 Oct 2011
19. GIZ Climate Change Adaptation Meeting Almaty 14-16 Nov 2011
20. USAID Regional Workshop on Glaciers Almaty Dec 6 2011
21. IWRM in CA 8-9 Dec 2011

2012:

1. CRM Training Bratislava 5-7 March
2. CA-CRM Regional PB Meeting
3. CRM KZ PB 20 March 2012
4. KIMEP Apr 19 2012
5. GTK Joint Workshop Issyk Kul
6. UNISDR Conference Almaty May 31 2012
7. BCPR CoP 4-7 June 2012
8. CA-CRM Inception 12-13 July 2012
9. Chu-Talas Vulnerability 19-20 July 2012
10. CA CRA Bishkek 3-4 Sept 2012
11. PEI Regional Workshop 11-12 Sept 2012
12. CA CRA Almaty Oct 15 2012
13. CARRA
14. Dare to Share Forum Almaty 1-2 Nov 2012
15. Chu-Talas UNDP-UNECE Meeting 5 Nov 2012
16. IWRM Final Seminar 6-7 Nov 2012
17. ENVSEC Regional Meeting 8 Nov 2012
18. CRM Training Tashkent 14-15 Nov 2012

19. PB CRM Uz 15 Nov 2012
20. Tashkent - CCA Seminar CAREC 12-13 Nov 2012
21. USAID Astana Nov 30 2012
22. Regional CA-CRM Almaty 12-13 Dec 2012
23. CRA Workshop 13-14 Dec 2012

2013:

1. CRM Training Ashgabat 4-5 Feb 2013
2. CA-CRM Workshop 24-28 Feb 2013 Bishkek
3. UNISDR Conference 14 March Almaty
4. CA-CRA Workshop 27-29 March 2013 Bishkek
5. UNRCCA Conference Almaty 11-13 April 2013
6. Water for Life Conference April 4 2013 Almaty
7. E&E CoP 22-29 April Bratislava
8. CA-CRM Regional PB Meeting 27 Apr 2013
9. CA-CRM Regional Meeting 26 April 2013
10. USAID Wheat Project - Modeling
11. WB Knowledge forum Almaty 18 June
12. CDKN Learning Event Bangkok, 19-21 June
13. Kids Contest EXPO-2017 13-14 June Almaty

Annex 8: Overview of the publications developed within the programme

Knowledge products:

- Central Asia Glaciers' Study - Current state of knowledge and recommendations. Literature and data review, gaps' identification and recommendations for future work prepared by UNEP/DEWA/GRID-Europe: Bruno Chatenoux Global Change and Vulnerability Unit, UNEP
- Brochure "The Glaciers of Central Asia: A Disappearing Resource", ENVSEC side: www.envsec.org/publications/brochure_the_glaciers_of_central_asia_dec_2011.pdf
- Article on CA-CRM implemented expeditions in Pamir, August 12, 2011 (http://khovar.tj/rus/society/29131-organizovana-mezhdunarodnaya-ekspediciya-po-izucheniyu-lednikov-v-verhovyah-rek-vahsha-i-pyandzh.html)

Interviews and publications in Mass Media:

- CARNet: Region: A. Kaplina, Ye. Volovik: Understanding the Problem of Climate Change as the Key Challenge for the Region Has Been Recognized at the Decision Making Level, 10 June, 2011 (http://caresd.net/site.html?text_search=%C2%EE%EB%EE%E2%E8%EA).
- UN Radio Article (also an audio track) on CA-CRM funded expedition (http://www.unmultimedia.org/radio/russian/archives/97700)
- UN Radio Article (and also a video clip 5 min 55 sec) "What is the looming threat of the climatic "fridge" turning into an "oven"?" (http://www.unmultimedia.org/radio/russian/archives/98071)
- A website for MountainHazards–2011 has been developed, which contains all information and proceedings of the conference (www.MountainHazards2011.com)
- CA-CRM is presented in Teamworks both at the Programme level and each of 5 individual National CRM Projects
- Yegor Volovik: How to manage a disaster, Magazine EXPERT Kazakhstan, #44 (365), 5 Nov 2012 (http://expert.ru/kazakhstan/2012/44/kak-upravlyat-katastrofoj/);

Annex 9: Overview of Regional Training Events for 2011 – 2013

#	Training	When / Where	Participants	Partner
		2011		
1	CRM Training	February Almaty, Kz	Programme staff, UNDP COs and regional and national stakeholders	
2	Glacier mass balance monitoring training	July, Almaty, Kz	Young specialists from CA institutes	UNESCO, Inst. of Geography
3	RBM, PRINCE2	September, Bratislava, Sl	Programme staff	
4	CADRI Training	October, Almaty, Kz	????	DIPECHO, UNDP GRIP
5	CRM Training	October, Almaty, Kz	????	DIPECHO, UNDP GRIP
6	CRM Training	October, Almaty, Kz	Grass-root level NGOs and key partners for pilot interventions	GEF SGP
		2012		
1	CRM Training	March, Bratislava, Sl	????	????
2	CRM Training	November, Tashkent, Uz	????	????
3	CRM Training	November, Bishkek, Kg	????	????
		2013		
	CRM Training	Ashgabat 4-5 Feb 2013		
	CA-CRM Workshop	24-28 Feb 2013 Bishkek		
	CA-CRA Workshop	27-29 March 2013 Bishkek		

Annex 10: Stakeholders' response to the CRM publications

[i] Kyrgyzstan Second National Communication, 2009.

ATTACHMENT 10

From: zuhra abaihanova <climate.kg@gmail.com>
Date: 2013/10/8
Subject: Climate Risk Assessment Guide – Central Asia_request for Russian version
To: cdknetwork.enquiries@uk.pwc.com, asia@cdkn.org, dkhan@lead.org.pk

Dear Colleagues,

We visited CDKN website and through "search" option have found very interesting reports "Climate Risk Assessment Guide – Central Asia" and "Kyrgyzstan Climate Risk Profile" placed at the end of August.

Brief acquaintance with reports raised questions related to methodology applied, main conclusions made and to the content of Kyrgyzstan Climate Risk Profile.

In Kyrgyzstan the climate change related issues are coordinated and supervised by the National Climate Change Coordination Commission chaired by the VIce-Prime-Minister and represented by the CEOs of relevant ministries and institutions.

As Secretariat of the Commission we would like to learn more details about the proposed climate risk methodology expected to be implemented in Kyrgyzstan and other CA countries.

Moreover, we are planning to conduct the Commission session to introduce these reports and would be very grateful if you advice us how to receive the Russian versions of the reports to make them available to the Commission members.

Zuhra Abaihanova
Executive Secretary of the National Climate Change Coordination Commission
Kyrgyz Republic

--
Zuhra Abaihanova
TNC Coordinator
Kyrgyzstan

КЫРГЫЗ РЕСПУБЛИКАСЫНЫН
ӨЗГӨЧӨ КЫРДААЛДАР
МИНИСТИРЛИГИ

ГИДРОМЕТЕОРОЛОГИЯ
БОЮНЧА АГЕНТТИГИ
(КЫРГЫЗГИДРОМЕТ)

МИНИСТЕРСТВО
ЧРЕЗВЫЧАЙНЫХ СИТУАЦИЙ
КЫРГЫЗСКОЙ РЕСПУБЛИКИ

АГЕНТСТВО ПО
ГИДРОМЕТЕОРОЛОГИИ
(КЫРГЫЗГИДРОМЕТ)

AGENCY ON HYDROMETEOROLOGY
UNDER MINISTRY OF EMERGENCY SITUATIONS OF THE KYRGYZ REPUBLIC

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10.10.2013 № 07/3120

Постоянному Представителю
Программы развития
ООН в Кыргызстане
г-ну Аванесову А.Н.

Уважаемый Александр Николаевич,

Пользуясь случаем, разрешите поблагодарить за поддержку, оказываемую ПРООН Министерству по чрезвычайным ситуациям Кыргызской Республики, подразделением которого является Кыргызгидромет.

Мы очень высоко оцениваем Вашу поддержку инициативы по сокращению риска снежных лавин и верим, что она реализуется в полноценный проект.

Как вы знаете, Правительство Кыргызской Республики придаёт вопросам изменения климата важное значение, одним из свидетельств чему может быть образование Координационной комиссии по проблемам изменения климата, последнее заседание которой прошло 24 сентября 2013 года.

Внимание наших специалистов привлекла публикация «Управление климатическими рисками в Суусамырской долине: прогнозы и рекомендации экспертов», которая была приложена к программе заседания упомянутой сессии Координационной комиссии.

Мы с уважением относимся к выбору проектом ПРООН «Управление климатическими рисками в Кыргызстане (2010-2014 г.г.)» группы экспертов, но, тем не менее, хотелось бы высказать ряд замечаний к содержанию публикации.

1. Эксперты публикации оперируют климатическими данными, без ссылок на то, как эти данные получены. Если это данные (стр.3-5, стр.9-14) их собственных многолетних наблюдений, то мы были бы весьма заинтересованы узнать о методике, по которой они получены, поскольку, в соответствии со статьёй 2 Закона «О гидрометеорологической деятельности в Кыргызской Республике», гидрометеорологическая

деятельность осуществляется в едином порядке на всей территории страны на основании рекомендаций Всемирной метеорологической организации (ВМО). Это же относится к картам высоты снежного покрова, стр.4, среднемесячной температуры в январе стр. 8, даты наступления первого осеннего заморозка, стр.12.

2. Ссылки на источник данных существуют для карт лавинной и селевой опасности (стр.16, 18). Но, ссылки эти сокращены по сравнению с исходными картами, поскольку не указывают, что содержание карт, на основе многолетних полевых наблюдений, воздушных и космических съёмок разработано сотрудниками Киргизского Республиканского управления по гидрометеорологии С.С.Кубрушко, Я.С. Стависским, Ю.П.Барбатом, А.Д.Святецем в 1983-1985 г.г.

3.Некоторые заключения и формулировки экспертов приведены без должного обоснования или ссылок откуда эти заключения взяты, например:

«увеличивается объём речных стоков с последующим уменьшением», стр. 2. Каким образом это установлено ? Или из каких литературных источников взято?
«уменьшается влажность почвы на пастбищах и неорошаемых землях…», стр.3. Как это установлено? Чем измерялось? С чем сравнивалось?

«увеличивается вегетационный период, но одновременно он становится гораздо суше…» стр.3. Как это установлено?

Можно ещё дальше продолжать цитирование, но приведённого достаточно, чтобы сказать , что заключениям не хватает аргументации.

Хочется также привести некоторые рекомендации экспертов с небольшими комментариями к ним наших специалистов:

«…улучшить работу метеостанции Суусамыр и восстановить в полном объёме программы регулярных агрометеорологических наблюдений и долгосрочных агропрогнозов», стр.17. На каком основании эксперты признали работу метеостанции неудовлетворительной? Что подразумевается

под долгосрочными агропрогнозами? Такие виды прогнозов никогда не выпускались.

«…улучшить систему раннего оповещения о неблагоприятных природных явлениях», стр. 17. Что эксперты имели ввиду? В настоящее время штормовые предупреждения об угрозе возникновения ЧС выпускаются в Кыргызгидромете с заблаговременностью 1-2 суток. Если они не доходят до потребителей на местах, то это другой вопрос.

«…улучшить работу снеголавинной станции Тюя-Ашу Южная», стр.17. Существуют методические наставления, определяющие режим наблюдений.

«…рекомендовать органам гидрометеорологической службы создание гидрологического поста наблюдений на реке Суусамыр…», стр. 20. Мы следуем методическим рекомендации Всемирной Метеорологической Организации и исходим из возможностей бюджета страны при развитии сети гидрометеорологических наблюдений.

По нашему мнению, публикация имеет серьёзные недостатки и нуждается в переработке. Кроме того, мы бы хотели обратиться к Вам с просьбой о содействии в организации встречи экспертов и руководства проектом с нашими специалистами для обсуждения методических вопросов, проведённого ими исследования климатических рисков Суусамырской долины.

С уважением и надеждой на дальнейшее сотрудничество

Заместитель директора **Асанходжаев Р.Г.**

From: Татьяна Черникова <tchernikova1969@mail.ru>
To: cdknetwork.enquiries@uk.pwc.com, asia@cdkn.org, dkhan@lead.org.pk
Date: Sat, 12 Oct 2013 12:26:00 +0400
Subject: Climate Risk Guide Central Asia Kyrgyzstan Climate Risk Profile

Dear Colleagues,
I am not so confident in English, but I can understand climate and hydrometeorology things.

That`s why I was interesting to read two reports placed at the CDKN website.

I am not going to provide details, but reading raised many questions related to justification and clarification of many conclusions, statements and approaches in the reports.

For instance (Climate Risk Assessment Guide – Central Asia, p. 5), one of the main conclusion is that there is "weak data on the impacts of climate risks at the sub-national level". If so, how "The procedures set out in the Guide provide results that can be compared at the sub-national level across Central Asia" ?

Our agency is government authorized agency on creation of hydrometeorology data base and we would like to know for what extent data is weak.

Kyrgyzstan Climate Risk Profile
I have to refer to our national legislation Again. KyrgyzHydromet is responsible for compiling and publication of scientific and applied compendiums. Neither KyrgyzHydromet as institution nor experts

from KyrgyzHydromet participated in the compiling of Kyrgyzstan Climate Risk Profile or endorsement of its structure and content.

Besides, Kyrgyzstan Climate Risk Profile does not contain clear reference from what source precipitation data was taken (Tables 2-8 and Charts 2-7).

From this angle it seems the title “Kyrgyzstan Climate Risk Profile” should be changed because actually it creates false impression that national/government institutions of Kyrgyzstan were engaged with the profile.

KyrgyzHydromet already send letter to UNDP Kyrgyzstan concerning the quality of conclusions and statements and absence of reference to Hydromet data used by expert in the publication of “Climate Risk Management in Kyrgyzstan” project. The project is the national component of the regional UNDP programme “Central Asia Climate Risk Management Program”.

As I understood, the same experts are in the group of authors of “Climate Risk Assessment Guide – Central Asia” and “Kyrgyzstan Climate Risk Profile” funded by CDKN.

That`s why it is not surprising that “Kyrgyzstan Climate Risk Profile” contains the same flaws like in mentioned above publication.

There are two languages used in Kyrgyzstan. Kyrgyz is (national) state language and Rissian is official one. To be more precise and ensure wide discussion on the placed papers we ask you to facilitate access to Russian versions.

Kind regards,
Tatyana Chernikova,
Head of Hydrometeorological observations and Forecast Department
Agency on Hydrometeorology under the Ministry
of Emergency Situations of the Kyrgyz Republic

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Дата: Понедельник, 21 октября 2013, 8:04 +04:00
Тема: «Climate Risk Assessment Guide – Central Asia» & «Kyrgyzstan Climate Risk Profile».

Уважаемый господин Турман,

Я с большим интересом воспринял появление на сайте http://www.cdkn.org двух отчётов, разработанных, как я понимаю, программой ПРООН по управлению климатическими рисками в Центральной Азии и общественным фондом «САМР-Алатоо»: «Climate Risk Assessment Guide – Central Asia» и «Kyrgyzstan Climate Risk Profile».

К сожалению, русского перевода предлагаемых отчётов нет и я слабо представляю, как эти методики будут использоваться странами Центральной Азии, где до сих пор русский язык доминирует в научно-технической сфере.

Предлагаемая методика и содержание климатического профиля Кыргызстана не выносилось на широкое обсуждение и экспертное сообщество климатологов,
метеорологов, специалистов по ЧС и бедствиям в Кыргызстане фактически ничего об этом не знает.

Неизвестны критерии, по которым отбиралась команда экспертов. Та информация, которая доступна в отчётах, позволяет судить об уровне компетентности в сфере климатологии и гидрометеорологии только двух экспертов.

На наш взгляд, эти факторы предопределили два главных недостатка отчётов и предлагаемой методики – отсутствие научно-обоснованных подходов в рекомендуемом процессе поиска связей : «климат-погодное явление - опасный процесс - бедствие» и отсутствие глубокого анализа того, что сделано и уже установлено по этим связям именно в странах Центральной Азии .

Предложенные подходы к оценке климатических рисков весьма поверхностны, созданы на чисто умозрительной концепции и не имеют связи с проведёнными и проводящимися работами в этом направлении национальных специалистов и учреждений Центральной Азии и Кыргызстана.

Обоснование этого вывода содержится в более детальных комментариях и вопросах приложенных к данному сообщению.

Наши коллеги из Кыргызгидромета и Национальной Координационной комиссии по вопросам изменения климата уже обращались к администратору сайта посодействовать в поиске русской версии отчётов и организации встречи с группой экспертов, но прогресса нет.

В заключение хотел бы обратить Ваше внимание на рекомендации Международной конференции «Mountainhazards 2013», в которых обращается внимание международных организаций и институтов на их особую ответственность при разработке прогнозов, методик, заключений и касающихся проблем изменения климата, сценариев и адаптационных механизмов.

С уважением,

Исакбек Торгоев

Директор НИЦ «ГЕОПРБОР» Национальной Академии наук Кыргызской Республики (КР), кандидат технических наук, член Научно-технического совета Межведомственной комиссии по гражданской защите при Правительстве КР, Лауреат Государственной премии КР в области науки и техники

Комментарии к отчётам «Climate Risk Assessment Guide – Central Asia» and "Kyrgyzstan Climate Risk Profile" проекта ПРООН и САМР: " Enabling Integrated Climate Risk Assessment for CCD planning in Central Asia", размещённых на сайте: http://www.cdkn.org

Summary

По нашему глубокому убеждению предложенные подходы к оценке климатических рисков весьма поверхностны, созданы на чисто умозрительной концепции и не имеют связи с проведёнными и проводящимися работами в этом направлении национальных специалистов и учреждений Центральной Азии и Кыргызстана.

Предлагаемая возможность исследований связей климат-бедствие на рядах 10 и 20 –летней длительности может создать иллюзию ненужности продолжения длиннорядных наблюдений, ненужности привлечения архивных и исторических данные, и вообще не принимать во внимание наличие наблюдений и исследований до 1990 года.

Более того, нет ни одной ссылки, что использование короткорядных данных как основы для оценок может вызвать серьёзные и даже опасные последствия.

Предлагаемое сравнение отклонений от среднего значения, как метода установления связей между количеством бедствий в административной единице и годовой суммой осадков за 10 лет несостоятельно ни с научной, ни с точки зрения обыкновенного здравого смысла.

Комментарии к « Climate Risk Assessment Guide – Central Asia»

Executive Summary, p.3
"…The **Climate Risk Assessment Guide – Central Asia** provides a clear and practical process to assess the impacts and outcomes of climate-related events on lives and livelihoods in Central Asia…".
Думается, что такую оценку, насколько процесс ясен и практичен, должны давать пользователи этой методики, но не эксперты и административный персонал самого проекта. Кроме того, перечень climate-related events, без точного определения, может быть бесконечен.

«…The region's arid continental climate, and the livelihoods systems based on this climate, will be impacted by changes in average precipitation and temperature over the long term…» Мы не знаем откуда у авторов данные (ссылка ?) об изменении осадков для региона. Для Кыргызстана же мы имеем следующее: « Тенденции изменения осадков разнонаправлены (т.е. наблюдается как уменьшение, так и увеличение по отдельным метеостанциям)и слабо выражены, что не позволяет сделать однозначный вывод о повышении или понижении годовых осадков для всей территории

Кыргызской Республики. «Национальный доклад о состоянии окружающей среды Кыргызской Республики за 2006-2011 годы», Бишкек, 2012

«…The need the **Guide** arises from the region's arid climate and the livelihoods systems based on this climate, significant impacts from climate-related damage, and regional infrastructure not designed to reflect current capacities to address climate risk impacts…». Очень трудно понять эту фразу, поскольку авторы не приводят определений, что такое impacts from climate-related damage, и что такое climate risk impacts и про какую региональную инфраструктуру идёт речь.

«…Short and long-term climate risks threaten poverty reduction and developmental sustainability…». Сами по себе риски никому и ничему не угрожают. Угрожают опасные климатические и погодные физические процессы.

«…The correlation between short and long-term climate-related hazards and temperature or precipitation…». Climate-related hazards не зависят только от температуры или осадков, но, во-первых, от их сочетания, во-вторых, от других параметров тоже, поскольку климат – это не только температуры или осадки.

« The procedures set out in the **Guide** provide results that can be compared at the sub-national level across Central Asia. The principal limitation faced by the process set out in the **Guide** is weak data on the impacts of climate risks at the sub-national level…». Во-первых, авторы не дают определения, что такое impacts of climate risks и поэтому о каких weak data идёт речь, непонятно. Во-вторых, если data are weak, то как можно получить результаты, которые могут быть сравнены на sub-national level across Central Asia?

Introduction, p.4

«… The region's arid continental climate, and the livelihoods systems based on this climate, will be impacted by changes in average precipitation and temperature over the long term…». Livelihoods systems основываются на природных ресурсах, способах их использования и организации сообщества. Если бы Livelihoods systems основывались на климате, то никаких проблем с адаптацией к изменениям климата не было бы.

«…Much of the infrastructure (e.g., roads, irrigation systems) in the region were designed with an expectation of significant recurrent investment to maintain usability in the face of climate-related hazards. For most of the countries in Central Asia, this level of investment is no longer possible and replacement or new infrastructure needs to be more sustainable and designed to better take local climate conditions into consideration…» . Если прошлая инфраструктура уже строилась с учётом климатических опасностей, то почему её нужно замещать или строить новую с учётом местных климатических условий?

«…Post-independence developmental policies and livelihood systems need to be structured to allow for a flexible and sustainable adjustment to a changing climate and associated risks. Links between basic needs such as water, energy, food, health and security, and climate risks need to be understood so that policies and livelihood changes do not increase (but ideally reduce) the risk posed by climate change and variability...». В первую очередь, эти links должны быть убедительно продемонстрированы и только потом можно переходить к рекомендациям по изменениям в политике развития и системах жизнеобеспечения. Само руководство и Kyrgyzstan Risk Profile не приводят достоверных примеров таких связей .

P.5

"…The **Risk Assessment for Central Asia and Caucasus: Desk Study Review** (Central Asia and Caucasus Disaster Risk Management Initiative, no date) presents disaster risk assessment results covering climate-related disasters for the countries in the region. However, the report uses data sources that are, at best, national in scale and not fully representative of actual disasters at the sub-national level...". Региональные публикации, как правило, не содержат данных sub-national level. Такие данные следует искать в национальных публикациях и исследованиях.

«…Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation (**SREX**) (Intergovernmental Panel on Climate Change, 2012,) is a global attempt to understand the links between a changing climate and extreme weather events and disasters…». В отличие от авторов

отчёта, указанная публикация чётко разделяет понятия: changing climate and extreme weather events and disasters.

«…Further, the level of effort which went into **SREX** (over 150 contributors) is impractical for even national or regional climate risk assessments in Central Asia…». Приведённая цитата демонстрирует отсутствия у авторов ясного понимания как глобальный подход должен применяться на национальном и суб-национальном уровнях. Вопрос не в количестве экспертов. Дело в том, что климат – это определение, подразумевающее набор многолетних характеристик (по WMO - минимум 30 лет), а бедствие же – это явление, которое, в данной стране или области происходит не каждый год и не два, а один раз в 10, 20 или реже лет.

«…In response to the factors summarized above, the **UNDP Central Asia Climate Risk Assessment Program** is developing climate risk profiles, below the national level where possible, to provide the basis for better climate risk management. This **Guide** is intended to support the development of these profiles…». Не очень понятно, если руководство призвано поддержать разработку профиля климатических рисков, то почему руководство содержит раздел, где наоборот, процесс оценки базируется на разработке профиля «…Step-by-step process for conducting assessments based on development of a national climate risk assessment profile …»? Что же всё-таки первично?

III. Development of the CRA Guide, p.6

«…CAMP Alatoo (the lead organization for the development of the **Guide**) and the UNDP project management identified a group of experts from within and outside Central Asia to develop the **Guide**…» Почему только эксперты и административные сотрудники проектов из Кыргызстана и Казахстана вошли в эту группу ?

И по каким критериям CAMPом и UNDP отбирались эксперты и административные сотрудники в авторы этой методики?

Вопрос по эксперту C.Kelly , Disaster Management Specialist, CAMP Alatoo p. ii. Он считается специалистом из Кыргызстана или из-за пределов Средней Азии ? И если это так, то C. Kelly сам с собой встречался : «… CRA CA team met at Issyk Kyl, Kyrgyzstan, in mid-July 2012 together with UNDP and CAMP Alatoo staff…»?

Почему в группу экспертов не вошли специалисты, работающие в Центральной Азии и получившие мировое признание именно за работы по проблематике изменений климата и их влияния на сток, оледенение, опасные природные явления и пр.? Их не два и три, и есть из кого выбирать, не прибегая к экспертизе помощника по коммуникации проекта или ассистента координатора проекта.

«…The resulting draft **Guide** was circulated to team members, select staff within UNDP and CAMP Alatoo, and others for comments and improvements… The initial results of these pilots and comments on the methodology were reviewed at a CRA CA Team meeting in Bishkek in early September 2012 together with UNDP and CAMP Alatoo staff…» . Это означает, что Guide draft за пределы UNDP и CAMP не выходил?

«…A further review of the draft **Guide** and **Profile Reports** took place in Bishkek in late February 2013. This meeting was divided between team-level technical discussions on the **Guide** and **Profile** reports and presentations of project results to outside parties for comment…». Я был на этой презентации и могу подтвердить, что ни один из комментариев не был учтён, и на многие вопросы эксперты CAMPа и ПРООН попросту не могли ответить.

IV. Concepts and Approaches, p.10

Общие замечания к концептуальной и теоретической части:

- Манера ссылок на заимствования не позволяет определить, что собственно сами авторы предлагают
- Key terms не охватывают перечня важных терминов, постоянно приводимых в тексте. Это очень затрудняет понимание

- Нет ясности в тексте, когда термины используются в понимании менеджмента бедствий и когда в климатологии, несмотря на то, что сами авторы ссылаются на существование таких различий (p.16)
- Много случаев создания новых словообразований или неожиданной трактовки уже устоявшихся терминов, что также не помогает ясному изложению и соответственно пониманию текста

p.10

«…Disaster risk assessments focus on what can be immediately life-threatening events (e.g., disasters) from the immediate to ten year horizon arising from a range of events (e.g., heavy precipitation, drought, hail, flooding, food security, etc.)…» . Такое впечатление, что авторы слабо знакомы с фундаментальными понятиями «disaster", "hazard" and "risk". Кроме того, это определение противоречит определению данному на стр. 17.

"…Overall, a core reason for assessing climate-related risks is to identify how these risks will affect society. Understanding the threat posed by climate-related risks enables society to act to reduce or avoid the impacts of these threats and make the overall developmental progress sustainable…". Дополнительное свидетельство путаницы авторов в понятиях «disaster", "hazard", «threat" and "risk".

p.11.

"…For this **Guide**, risk is defined as *the exposure in time and place of one or more humans to an event (a hazard) and the outcome of this event on these humans…". Очень странное определение «risk». Оно концептуально отличается от понятия "* risk" которое дано в ISDR Glossary, 2009. Кроме того, мы не нашли источник, на который ссылаются авторы. Как известно, «Intergovernmental Panel on Climate Change, (2012) это не публикация, это организация.

"…Risks can result in positive or negative outcomes. To limit the scope of the **Guide**, the focus is on the negative outcomes of risks…". Почему? Изменения климата это не только негативные последствия, например для Кыргызстана – это увеличение длительности туристического сезона на Иссык-Куле, для Казахстана расширения пояса зерновых на север и т.п. Более того, изменения температуры уже изменили частоту и интенсивность заморозков в земледельческой зоне Кыргызстана. Это можно проверить по данным наблюдений агро метеорологических станций, не прибегая к опросам или используя методы экпертных оценок, включая дельфийский.

Умалчивание других возможных эффектов изменения климата, за исключеним негативных, не только неправильно с методической точки зрения, но фактически приводит к манипулированию мнением людей. Возможно, ответы населения на разработанные вопросники были бы совершенно иными, если бы люди были информированы о полной картине последствий изменений климата.

"…The changes to lives, gender roles, the economy and society in general related to a changing climate are deeper, slower and likely more significant than one, or several, severe floods or droughts…" Не согласен с таким заявлением. Поскольку несколько суровых засух просто уничтожат экономику и вынудят людей покинуть такие места

p.12-13.

Какая разница между понятиями Climate-related hazards, Climate-related events и climate hazard event and impacts ?

«…The **Guide** makes a distinction between impacts and outcomes. The former refers to the damage done (or which can be done) when a risk materializes, i.e., when a significant change affects humans. This change can be immediate, as in the case of a disaster, or over the long term, as in the case of a change in type of livestock raised due to increased arid conditions.
Outcome refers to the combined results of impacts on the unit of analysis, from individuals to society at large. For instance, flooding may lead to the loss of animals (an impact). If the owner has insurance against flood looses, the outcome of the flooding is less severe than if there was no insurance. As hazard events can have multiple impacts, and some of these impacts may be reduced by other factors, it is important to consider impacts and overall outcomes separately to understand more clearly how hazard events affect individuals and society…» . Неясно чем impact отличается от damage и зачем объединение различных видов ущерба нужно было называть outcome. Есть устоявшиеся термины и их замена на новые, без чётких определений затрудняет понимание методики.

«…A direct link between a climate hazard event and impacts…». Отсутствует указание какое из перечисленных явлений и процессов авторы относят к climate hazard event и какое к impact. Без такого указания невозможно понять принципы формирования групп на странице 13.

P.13.

Climate-Related Hazards . Без определения, что авторы под этим понимают непонятно о чём идёт речь, поскольку смешиваются weather, climate event and hazards characteristics. WMO (World Meteorological Organisation) provides very clear and precise definition: Natural hazards are severe and extreme weather and climate events that occur naturally in all parts of the world, although some regions are more vulnerable to certain hazards than others". Ключевое слово в определении WMO это - «extreme event" . Приведённая ниже классификация не учитывает этого понятия и приводит к confusion и логическим несоответствиям между events and outcomes.

«…In sum, risk is a theoretical condition defined by the impact of an event on humans, with the scale of the outcome defined by (1) the exposure in time and space, (2) the possible damage from the event and (3) the means available to reduce this exposure and damage…». Это уже третье определение риска. Неизвестно, какое именно из трёх определений затем используется, что совершенно не помогает пониманию текста.

p.22. Gender

«…Note that the word gender can include men/boys, women/girls as well as a number of other designations. Given the data expected to be available in Central Asia, only the men/boys-women/girls classifications will be used...» Концептуально неверное понимание, что такое гендер. Men/boys-women/girls classifications это распределение по полу и возрасту и больше ничего, гендером это не называется.

p. 22.Geographic Information Systems

Приведены общие рассуждения о ГИС. Из текста неясно как именно возможности ГИС могут использованы в процессе.

p.22. Non-Climate Factors

В тексте нет ни определений, ни примеров, что понимается под Non-climate factors и climate-related factors.

p.33. Step-by-Step Climate Risk Assessment Process

A. Identify Correlation between Climate-Related Hazards and Climate Parameters

Без определений, что понимается авторами под Climate-Related Hazards очень трудно оценить применимость предлагаемых ниже способов. Если под Climate-Related Hazards понимаются неблагоприятные и опасные погодные явления, то корреляцию нужно искать с метеорологическими, а не климатическими параметрами. Если же речь идёт long-term changes in climatic variables such as temperature and precipitation, trends or transition from one climatic state to another, то тут наоборот, нужно искать связи с изменениями в неблагоприятных и опасных погодных явлений

P 34.

"…The preference is for as long as possible data sets (e.g., 30 years) for a better correlation assessment, and to identify whether there have been any changes in climate or event trends over time. At a minimum, ten years of data should be used…". За десять лет невозможно выявить статистически значимые изменения в климате и его тренде. Для статистически значимых и достоверных выводов, необходимо, как минимум, 30 пар значений. World Meteorological Organisation uses 30 летний срок в определении климата. В целом климатология, как наука, - это в первую очередь – статистика.

P.34.Short Period Data

Этот раздел и приведённый пример с осадками и наводнениями не имеет научного обоснования как сточки зрения статистики, так и гидрометеорологии.

Первое, как уже говорилось выше, статистически значимые связи можно получить, сравнивая 30 пар значений.
Второе, отклонения фактического значения от среднего это только отклонение и ничего больше. Сравнивать его с отклонениями от среднего другого значения можно, но это не доказательство связи. Иначе можно будет обнаружить связь между любыми явлениями, например - между отклонениями от среднего многолетнего значения количества продаж пончиков и отклонениями от среднего количества разводов за эти же годы.

Третье, годовое количество наводнений не определяются, по крайней мере в северном полушарии, количеством осадков за январь-июль. Сравнивать эти параметры также логично, как сравнивать пончики и количество разводов. В гидрометеорологии осадки принято делить на осадки холодного и тёплого периодов. В холодный период осадки выпадают в виде снега, а сток уменьшается или вовсе прекращается (вода замерзает).

Четвёртое, весь раздел **«Identify Correlation between Climate-Related Hazards and Climate Parameters»** не содержит ни одной ссылки на работы, которые уже проведены в этой сфере, и на основе которых уже разработаны нормы и правила (не просто научные статьи, а руководства, по которым работают !) например, как рассчитать объём и время прохождения паводков по данным о температуре и осадках; как рассчитать сход снежных лавин на конкретный участок по данным о высоте снега, скорости ветра, температуре.

Мы не говорим уже о опубликованных материалах научных работ по этой проблематике. Авторы, по-видимому, просто не осведомлены, о том как много экспертов и организаций работало и работают в этом направлении в Центральной Азии.

P.34
"…An example of the results of this process is provided below ("**Table 2**"). The gray tone cells indicate a possible correlation. (Negative or positive numbers are not important to the process.)…"

«…The analysis should be done at the lowest spatial level for which reliable event and climate data is available. The results are indicative and not statistically significant and have limited predictive value. Managing the data records and the calculation process can be done using Excel® or similar software…»

Имеющаяся фраза в тексте: «…The results are indicative and not statistically significant and have limited predictive value..» создаёт впечатление, что по коротким рядам наблюдений можно получить «indicative results» и results with "limited predictive value". Как уже говорилось выше достоверным анализом может быть только анализ более 30 пар значений, и этот научный подход нужно проповедовать, иначе можно поставить под сомнение нужность продолжения и ведения многолетних наблюдений за климатом, если можно очень легко получить «indicative results» и results with "limited predictive value" используя « ***Excel® or similar software»*** . С практической точки зрения, такая лёгкость обращения с данными может причинить огромный ущерб, если опираясь на рекомендации данного раздела, кто-то примет решение, например, строить дома без теплоизоляции, поскольку последние 3-4 зимы были тёплыми.

Очень много вопросов к таблице 2.

Первое, таблица носит название степень корреляции (связи) между осадками и **Disaster Events в Баткенской области.**

Вопрос как определялись осадки по Баткенской области? Сейчас там работает две метеорологические станции. Если данные по бедствиям охватывают все события в пределах области (площадь Баткенской области 17 тыс. кв. км, это больше чем Черногория, но немного меньше Македонии), то как были получены данные по осадкам по всей площади области ? Это горная область, высотный диапазон территории от 500 до 5000 метров, климатические и погодные условия очень разные.

Из какого источника взяты данные по опасным процессам ? Удивляет отсутствие случаев прохождения селей за период с 2000 по 2010 год. «Национальный доклад о состоянии окружающей среды Кыргызской Республики за 2006-2011 годы», содержит раздел «Чрезвычайные ситуации природно-климатического характера» там говорится: «… за период 2000-2010 гг. наибольшее количество селей и паводков произошло в Джалал-Абадской (9,1 % от общего количества ЧС в Кыргызской Республике), Баткенской (6,2 %) и Ошской (6,1 %) областях.

Какая может быть связь между количеством осадков(измеренных где ?),, и количеством дней с сильным ветром и градом?

P.35. Long Period Data

Выводы по 20 парам значений статистически незначимы.

«...Defining expected links between hazard events and climate parameters, e.g., precipitation and flooding...». Тут очень важно указать, что эти связи могут быть установлена в одном и том же участке или гидрологическом бассейне. Сравнение количества наводнений в одном бассейне с количеством осадков измеренных в другом методически и логически неправильно.

«…An example of comparing crop yields to the standard precipitation index (SPI – a statistical indication of precipitation levels for each period compared to precipitation for the overall period of analysis) is provided below (”**Table 10**”). The shaded cells indicate a correlation between yield and SPI…». Как standard precipitation index рассчитывался для областей ? Mathematically, the SPI is based on the cumulative probability of a given rainfall event occurring at a station. Неясно, по какой из метеостанций рассчитывался SPI и как эта метеостанция репрезентативна для осадков по Чуйской и Таласской области. Был ли проведён анализ репрезентативности данных метеостанций или были использованы данные метеостанции, выбранной наугад?

«…The shaded cells indicate a correlation between yield and SPI…». С точки зрения теории и практики статистики коэффициент корреляции меньше чем 0,50 при 20 пар значений – это ясное свидетельство отсутствия какой-либо связи.

P.36
Both tables also indicate the significant difference in level of losses between different administrative units and for different types of events. The same analysis can be done for any type of event for which damage can be documented and the results compared across types of events at the level of total damage (“**Table 11**”) or per capita damage (“**Table 12**”).

Непонятно, речь идёт о прямых потерях или экономическом ущербе? Поскольку например, ущерб от лавин для дорог должен включать ущерб от простоя транспорта. Тоже самое относится к снегопадам и вьюгам. Вообще, без пояснений как считался ущерб просто непонятно, для чего нужна эта таблица. Например, снегопад может вызвать падёж скота, обрыв проводов, обрушения крыши, тоже простой транспорта. В зависимости от того, какие именно последствия он вызвал, размер ущерба (не говоря о методах расчёта) может меняться в сотни раз Без этого разъяснения таблицы лишена смысла. Было интересно сравнить результаты с данными публикации UNDP “Sampling Survey of Living Standards….”, Bishkek, 2005, где приведены статистика прямых потерь from 18 hazard types to humans, infrastructure, residential houses and etc. Около 1000 случаев за 1989-1999 годы было проанализировано в данной публикации.

P 37.The map below (“**Repartition of damage caused by disasters**…“) presents these results by level of per capita impact by type of event and total value. Such graphic presentations can be more effective than tables in communicating results…”. Карта неправильно показывает границы Чуйской области, misspells названия двух областей, нет озера Иссык-Куль. Это всё равно, что представить карту США или Канады без Великих озёр.

P.38- 43. **Define the Impacts of Climate Events on Livelihoods**

Зачем нужно прибегать к сложной, построенной на предположениях опросах оценке impacts, если в данных МЧС есть ясное указание, сколько и каких инфраструктурных объектов, жилых домов, сельскохозяйственных угодий повреждено/уничтожено, сколько семей вынуждено переселиться или лишены доступа к воде? Например, эта информация размещается на официальном сайте Министерства по чрезвычайным ситуациям Кыргызской Республики (www.mes.kg) вот уже несколько лет на кыргызском и русском языках.

P.42 Define the Risk of Impacts from Climate Events
Практическую ценность этого раздела очень спорна, поскольку неясно как определялся ущерб и все эти различия по областям более чем условны.

P.42 . Define Perceptions of Those At-Risk and Willingness to Address These Risks

Практическая ценность этого раздела также неясна

P.42 . Contrasting Expert and Perception Results

Для чего нужен этот раздел, если есть данные инструментальных наблюдений? Просто очень много зависит, кто именно эксперт и кого именно опрашивали

P. 52 Annex B. Climate Risk Assessment GIS Platform Summary
Здесь нет главного: описания того почему именно этот набор слоёв нужен (for instance, is it important for climate risk assessment to have Peak ground acceleration (PGA) layer?) и как он будет использоваться на областном уровне, если почти все из приведённых этих слоев представляют материалы глобального или регионального уровня ?.

Комментарии и вопросы к «**Kyrgyzstan Climate Risk Profile (KCRP)»**

P.6. Summary

P 6.«..The **Kyrgyzstan Climate Risk Profile Report** provides a preliminary profile of climate risk in Kyrgyzstan…». Хоть с одной другой организацией кроме САМРа и ПРООН обсуждалось название и содержание отчёта?

P 6«…The **Profile** focuses on disaster-related climate risks and climate-related impacts on key crops and related livelihoods…» **(KCRP, page 6).** Очень трудно понять, что имелось ввиду. Любой экспертный отчёт содержит определения. В данном отчёте используются очень часто словосочетания, без определения, что под ними понимается: Disaster-related climate risks, climate-crop impacts, climate-related disasters, climate risks, climate hazard and risks, threat of climate-links hazards and impacts, local climate-related impacts, climate-related events, climate factors, short term climate risk, longer term risks related to a changing climate, **climate-hazard events,** climate change impacts, **c**limate variability and change impacts effects, climate-related risks for females и так далее.

"…The assessment work did not identify any clear correlation between climate-related disasters and precipitation…". Без определения, что понимается под climate-related disasters and precipitation, трудно прокомментировать это заключение.

(**KCRP, page 6**). Карта неправильно показывает границы Чуйской области, misspells названия двух областей, нет озера Иссык-Куль, не говоря о других крупных водных объектах таких Токтогульское водохранилище, озера Сон-Кёль и Чатыр-Кёль.

"..The **Profile** results indicate that floods and flash floods are the most significant climate related disaster in Kyrgyzstan, with an estimated US$ 66 million in damage from 2000 to 2011…". **(KCRP, page 6).**
Наводнения и паводки это процессы. Бедствия - это другое. " A serious disruption of the functioning of a community or a society causing widespread human, material, economic or environmental losses which exceed the ability of the affected community or society to cope using its own resources. A disaster is a function of the risk process. It results from the combination of hazards, conditions of vulnerability and insufficient capacity or measures to reduce the potential negative consequences of risk. (ISDR 2007)"

"..With respect to livelihood impacts on females, Osh Oblast scores highest…" **(KCRP, page 6).** It is unclear how author could manage to assess separately livelihood impacts on females (?), males and general population and find province level differences. If authors just divided number of emergencies per female and male population, it has nothing common to livelihood impacts.

"…The Profile identified relative livelihood impacts for crops affected by climate risks…" **(KCRP, page 7).**
Риск это не физический процесс.

"…Significantly improve the data sets available on climate impacts at the national and sub-national levels…" **(KCRP, page 8). Могут ли авторы предоставить описание** of the data sets available on climate impacts, прежде чем давать рекомендации по их улучшению?

P.10 .The **Guide** is designed for use in Kyrgyzstan, Kazakhstan, Tajikistan, Turkmenistan and Uzbekistan and should be applicable in countries with similar socio-economic characteristics. Знают ли эти страны об этом руководстве ?

P.11

The assessment used the process set out in the **Climate Risk Assessment Guide – Central Asia**.6 The process set out in the **Guide** considers both short term climate risk (e.g. the impact of. droughts and flooding) and longer term risks related to a changing climate. Climate in a narrow sense is usually defined as the "average weather," or more rigorously, as the statistical description in terms of the mean and variability of relevant quantities over a period of time ranging from months to thousands or millions of years. **The classical period is 30 years, as defined by the World Meteorological Organization (WMO).** These quantities are most often surface variables such as temperature, precipitation, and wind. Climate in a wider sense is the state, including a statistical description, of the climate system.

"…Note that the **Profile** does not assess the impact of climate-related risks on human life. While mortality data is available for disasters, the valuation of human life, and the lack of mortality data for other, longer term, climate risks, limits the utility of incorporating mortality into the assessment process at this stage…"(KCRP, page 12). Это заключение противоречить заключению отчёта Минздрава Кыргызской Республики и ВОЗ «Оценка влияния изменений климата на здоровье населения Кыргызской Республики.

P.13.

"…Changes in rainfall patterns, with an average increase during winter by 13-27%, but a decrease during summer by 25-38%, by 2100…" ни одна из глобальных климатических моделей не имеет такой ошеломляющей точности прогнозирования осадков (до одного процента!) на 80 лет вперёд. И как это сопоставить с выводом «Национального доклада о состоянии окружающей среды Кыргызской Республики за 2006-2011 годы», Бишкек, 2012: «… Тенденции изменения осадков разнонаправлены (т.е. наблюдается как уменьшение, так и увеличение по отдельным метеостанциям) и слабо выражены, что не позволяет сделать однозначный вывод о повышении или пони-жении годовых осадков для всей территории Кыргызской Республики…»?

"…A background report on gender issues was commissioned for the **Profile**. The report notes that some disasters (e.g., landslides) have disproportionally affected women in the past. …"**(KCRP, page 17).** Как это соотносится с противоположным выводом на этой же странице? "…Gender-disaggregated data in disaster impacts was not available, and a differential assessment of risk could not be performed …".

Climate-Disaster Correlations Section

Factors Affecting the Formation of Mudflows. **KCRP, page 17.**

Непонятно, какие именно mudflows рассматривались, и как именно проводился мнофакторный анализ. Во-первых, сами mudflows делятся по происхождению на ливневые, гляциальные, рассредоточенного стока, русловые, склоновые. Поэтому непонятно о каких геологических, сейсмических факторах или гидрогеологических факторах идёт речь. Для проведения такого факторного анализа, нужно проанализировать огромный массив статистических данных о всех случаях прохождения селей в стране или в мире. Свидетельств существования такого массива в Кыргызстане не приводится. Если же это мнение экперта, то даже мнение, надо чем-то подтверждать. Вместе с тем, если precipitation forms 30% of total mudflows only, it means that it was wrong to add damage from mudflows to damage from flashfloods and floodings (**KCRP, page 29,** Tables 11,12)

"…To assess the possible link between precipitation and the five types of climate-related disasters noted above, a simple correlation between precipitation totals and number of events was developed for the seven Oblasts in Kyrgyzstan…" **KCRP, page 17**

Во-первых, floods and flash flooding, avalanches, storms and hail, heavy snow, landslides are not disasters.

Во-вторых, искать зависимость между осадками и hazards нужно по данным метеорологических и гидрологических постов, которые инструментально измеряют эти параметры уже больше 100 лет.

В третьих, эти зависимости, сильно зависят от местных особенностей, тем более в горной местности, поэтому и создаётся сеть гидрометеорологических станций и существуют критерии WMO по густоте точек наблюдений. Если следовать логике авторов, то Кыргызстану достаточно 7 метеорологических станций (по одной на каждую область). Кроме того, непонятно откуда авторы взяли данные по осадкам, характеризующим всю область.

В четвёртых, в климатологии и метеорологии год принято делить на холодный и тёплый период (с 1 октября по 31 марта или с 1 ноября по 30 апреля, соответственно тёплый период с 1 апреля по 30 сентября или с 1 мая по 31 октября. Логика такого распределения предельно простая – в холодный период осадки выпадают в виде снега, а сток либо прекращается (реки и ручьи замерзают) или становится малым. Зимних паводков не бывает, бывают ледовые зажоры и заторы. Поэтому предложенное авторами суммирование твердых и жидких осадков за январь-июль и июнь-декабрь выглядит очень странно и физически небоснованно (Табл 2- 8).

В пятых, никакой достоверностью выводы, сделанные по 10 парам значений не обладают.

Поэтому раздел методически не обоснован and " a simple correlation" ничем не подтверждается

Precipitation and Crop Production Correlation Section KCRP, page 26

Выводы на одной и той же странице исключают друг друга KCRP, page 27:

"…Table 9 summarizes the results of the analysis. Broadly speaking, there are no strong correlations between SPI and yield per hectare or between SPI and price per ton except for Talas Oblast for SPI-Yield, and Jalal Abad and Osh Oblasts for SPI-Prices…"
и
"…Cells in the table marked in grey indicate a strong correlation between SPI and yield…"

From statistics theory and practice angle, Correlation Coefficient less than 0,50 при 20 пар значений – это ясное свидетельство отсутствия какой-либо связи. Это неудивительно, поскольку другие, намного более важные факторы определяют урожай и урожайность в Чуйской и Таласской долинах:

- земледелие в Чуйской и Таласской долинах смешанное: поливное и неполивное. Урожаи и состав выращиваемых культур на неполивных и поливных землях абсолютно разный.
- площади, которые могут засеять зависят в первую очередь от цен на горюче-смазочные материалы, семена, стоимости содержания и эксплуатации техники
- в 1991-2001 годах происходил процесс дробления прежних крупных хозяйств (колхозов и совхозов) на частные хозяйства (приватизация), естественно этот очень сложный и болезненный процесс определял не только урожайность, но и само существование товарного сельского производства

Все эти факторы широко известны авторам и заведомо было ясно, что никаких статистически значимых зависимостей от количества осадков и урожайности выявлено не будет.

Дополнительный момент, который не раскрыт авторами. Mathematically, the SPI is based on the cumulative probability of a given rainfall event occurring at a station. Неясно, по какой из метеостанций рассчитывался SPI и как эта метеостанция репрезентативна для осадков по Чуйской и Таласской области.

Livelihoods Impacts of Climate-Related Disasters Section (page 28).

«…Based on the process set out in the **Guide**, a Delphi-based assessment was conducted on livelihood impacts from a range of climate-related disasters for each of the Oblasts in Kyrgyzstan. The assessment team consisted of two women and three men directly knowledgeable of conditions in Kyrgyzstan and with a mixture of social and physical science backgrounds, with another group of six persons (two female) serving as an external reference group, i.e, with more general knowledge of disasters and risks in Kyrgyzstan…»

Во-первых, зачем нужно прибегать к довольно сложной, построенной на предположениях оценке impacts, если в данных МЧС есть ясное указание, сколько и каких инфраструктурных объектов, жилых домов, сельскохозяйственных угодий повреждено/уничтожено, сколько семей вынуждено переселиться или лишены доступа к воде? Эта информация размещается на официальном сайте

Министерства по чрезвычайным ситуациям Кыргызской Республики (www.mes.kg) вот уже несколько лет на кыргызском и русском языках .

Во-вторых, вместо выяснения и скрупулёзного анализа, какой именно опасный процесс, какой именно урон наносит домохозяйствам, инфраструктуре, средствам существования, как например, это было сделано в публикации ПРООН «Выборочное исследование уровня жизни городского населения….» Бишкек, 2005, где был проанализирован каждый случай ЧС за 1989-1999 годы в Кыргызстане, авторы предлагают использовать дельфийский метод экспертных оценок (!?).

ДЕЛЬФИЙСКИЙ МЕТОД, или метод "Дельфи" [Delphi approach] — метод экспертной оценки будущего, т. е. экспертного прогнозирования. Разработан американской исследовательской корпорацией РЭНД. Суть его состоит в организации систематического сбора экспертных оценок — мнений специально подобранных экспертов, их математико-статистической обработки, корректировки экспертами своих оценок на основе каждого цикла обработки. При этом используется строгая процедура обмена мнениями, обеспечивающая по возможности беспристрастность выводов. Д. м. предназначен, таким образом, для получения относительно надежной информации в ситуациях ее острой недостаточности.

Поэтому, название секции и всех остальных параграфы и карт вплоть до 7.7.7. нужно изменить, поскольку это не оценка влияния бедствий, .

Хотелось бы подчернуть, что ситуация с информацией по чрезвычайным ситуциям, в том числе и по нанесённым потерям, никак не может быть признана «остро недостаточной», кроме того, судя по описанию, часть группы, обладает «прямыми знаниями условий Кыргызстана», вторая - «более общими знаниями о бедствиях и рисках в Кыргызстане». То есть, как мы понимаем, эта группа не имела специальной экспертизы ни в климатологии, ни в менеджменте бедствий.

Вследствие этого использование Delphi approach в данном контексте просто неуместно. Более того, название секции и всех остальных параграфов и карт вплоть до 7.7.7. нужно изменять, поскольку фактически это не оценка, а если действительно применён Delphi approach, то это только мнение группы людей, набранных по очень расплывчатым критериям и взявших на себя смелость прогнозирования.

P31.
"…The livelihoods impact assessment indicates that, for "mudflows" (technically the same as "floods and flash floods" in the damage assessment)…» Почему? Сели, наводнения и паводки – это разные процессы и ущерб, наносимый ими также разный и уязвимость средств существования к этим процессам также разная.

«…The following two maps present the level of assessed impact livelihoods for females (principally defined as women and older girls)…». Национальный Статистический Комитет Кыргызской Республики, не имеет категории «…women and older girls..»

Livelihood Impacts of Climate Factors Affecting Crops
"…Using the livelihoods impact assessment process set out in the **Guide**, a team of four persons (two male and two female) knowledgeable about crop production in Kyrgyzstan conducted a Delphi-based analysis of the impact of climate factors affecting crop production and livelihoods at Oblast level for the general population, and for females. The assessment process presumed that the most significant large-scale impacts on crop production have been a lack of precipitation (drought) or an excess of precipitation, which could lead to water logging or other impacts…"

Умозрительное предположение имеющего мало общего с реальной ситуаций и практической ценностью. Например, если верить данным приведённым в отчёте, то за 2001-2011 год, ни в одной из областей не было ни засухи, ни water logging.

7.7.1. Landslides,7.7.2. Avalanches, 7.7.3. Floods and Flash Floods, 7.7.4. Storms and Hail, 7.7.6. Overall Risk Sections

Все эти секции лишены какого-либо практического и методического смысла, Зачем нужно прибегать к методически запутанной оценке, если в данных МЧС есть ясное указание, сколько и каких инфраструктурных объектов, жилых домов, сельскохозяйственных угодий повреждено/уничтожено, сколько семей вынуждено переселиться или лишены доступа к воде в результате воздействия того или иного процесса.

7.7.9. Limitations
There are several limitations that affect the results presented in this **Profile**. One significant limitation is the lack of data on climate-related impacts, particularly in terms of damage, both from rapid on-set events and from slower changed to the climate.

The assessment process addressed this limitation. But, for instance, an expectation that average damage for two years is representative of a longer period is weak, The resulting estimations of damage are correspondingly weak and need to be used with understanding of their limitations.

Главное ограничение которое повлияло на результаты профиля это не отсутствие данных (данные по осадкам и ЧС откуда-то ведь появились!), а отсутствие научно обоснованных подходов в предлагаемом процессе поиска связей климат-погодное явление- опасный процесс-бедствие.

From: inter
Sent: Thursday, December 12, 2013 3:02 PM
To: cdknetwork.enquiries@uk.pwc.com ; asia@cdkn.org ; dkhan@lead.org.pk ; michael.thurman@undp.org ; yegor.volovik@undp.org
Subject: proposal of cooperation with Kyrgyzhydromet

Please, find attached letter with cooperation proposal.

Best regards,

Sabira Tiuliundieva
Chief specialist Kyrgyzhydromet under the Ministry of Emergency Situations of Kyrgyz Republic

Тел./факс: +996 312 314672
Email: inter@meteo.kg

КЫРГЫЗ РЕСПУБЛИКАСЫНЫН
ӨЗГӨЧӨ КЫРДААЛДАР
МИНИСТРЛИГИ

ГИДРОМЕТЕОРОЛОГИЯ
БОЮНЧА АГЕНТТИГИ
(КЫРГЫЗГИДРОМЕТ)

МИНИСТЕРСТВО
ЧРЕЗВЫЧАЙНЫХ СИТУАЦИЙ
КЫРГЫЗСКОЙ РЕСПУБЛИКИ

АГЕНТСТВО ПО
ГИДРОМЕТЕОРОЛОГИИ
(КЫРГЫЗГИДРОМЕТ)

AGENCY ON HYDROMETEOROLOGY
UNDER MINISTRY OF EMERGENCY SITUATIONS OF THE KYRGYZ REPUBLIC

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12.12.2013. № 06/3537

На _____

Координатору/и.о. менеджера портфеля по Предотвращению кризисов и восстановлению по странам Европы и СНГ Регионального центра ПРООН для стран Европы и СНГ г-ну Майклу Турману

Уважаемый г-н Майкл Турман,

От имени Агентства по гидрометеорологии при МЧС КР выражаем свое уважение и надежду на плодотворное сотрудничество Региональному центру ПРООН для стран Европы и СНГ.

Сообщаем, что в октябре 2013 года ряд специалистов Кыргызстана (Кыргызгидромет, Национальная Академия Наук, Национальная Комиссия по изменению климата) обратили внимание руководства Программы ПРООН по управлению климатическими рисками в Центральной Азии (UNDP Central Asia Climate Risk Management Program) на содержание двух отчётов: «Руководство по оценке климатическими рисками в Центральной Азии» (Climate Risk Assessment Guide Central Asia) – и «Краткий обзор климатических рисков в Кыргызстане» (Kyrgyzstan Climate Risk Profile), сейчас последний переименован на «Опробация методологии оценки климатического риска в Кыргызстане» («Testing of Climate Risk Assessment Methodology in Kyrgyzstan»), размещённых на сайте http://www.cdkn.org. Оба отчёта в целом базируются на исследованиях, проведённых в Кыргызстане.

По качеству отчётов и применённой методике данных исследований Кыргызгидрометом были высказаны ряд критических замечаний. Ряд тех же экспертов из Кыргызстана, принимавших участие в разработке методологии являются авторами брошюры «Управление климатическими рисками в Суусамырской долине: прогноз и рекомендации экспертов», из-за несогласия с которой мы были вынуждены направить письмо в адрес

руководства ПРООН в Кыргызской Республике с просьбой провести встречу по обсуждению использованной методики.

На наш взгляд, высказанные замечания являются очень серьезными, поскольку касаются научной обоснованности примененной методики и гидрометеорологических данных и очень жаль, что на методические вопросы не удалось получить ответов во время обсуждения в Кыргызгидромете.

Мы обращались за русской версией размещённых на сайте ПРООН отчётов http://www.cdkn.org, но так их и не получили.

От имени Кыргызгидромета заявляем, что наши эксперты располагают необходимым уровнем знаний, владеют научно-обоснованными подходами и данными для выявления зависимостей между климатическими характеристиками, опасными гидрометеорологическими явлениями и чрезвычайными ситуациями.

Более того, уникальный статус Кыргызгидромета, находящегося в составе Министерства по чрезвычайным ситуациям позволяет предположить, что такая работа будет успешной.

Мы бы хотели бы знать, планирует ли Программа ПРООН по управлению климатическими рисками в Центральной Азии (Central Asia Climate Risk Management Program) сотрудничать с Кыргызгидрометом в дальнейшей работе.

Более того, мы заинтересованы в привлечении наших коллег из гидрометеорологических служб других стран Центральной Азии к сотрудничеству в вышеупомянутой сфере и хотели бы ознакомить их с нашими замечаниями по предложенной региональной методике, которая, как оказалось, была тестирована в Кыргызстане, и, как следует из отчётов, предназначена для использования также в Казахстане, Таджикистане, Туркменистане и Узбекистане.

Еще раз выражаем надежду на плодотворное сотрудничество.

С уважением,

Заместитель директора **Р.Г. Асанходжаев**

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