

CLIMATE INVESTMENT FUNDS

PPCR/SC.6/4
June 7, 2010

Meeting of the PPCR Sub-Committee
Washington DC
June 23, 2010

TAJKISTAN: PROPOSAL FOR PHASE 1 FUNDING

Proposed Sub-Committee Decision

The PPCR Sub-Committee reviewed the proposal PPCR/SC.6/4, *Tajikistan: Proposal for Phase I Funding*, and approves \$1.5 million in financing to support the preparation of Tajikistan's Strategic Pilot Program. The Sub-Committee invites the Asian Development Bank, the European Bank for Reconstruction and Development, and the World Bank Group to work with Tajikistan, in consultation with other development partners, to prepare the Tajikistan's Strategic Program for Climate Resilience.

**PILOT PROGRAM FOR CLIMATE RESILIENCE
Summary Phase 1 Grant Proposal**

1. Country/Region:	<i>Tajikistan</i>	2. CIF Project ID #:	{Trustee will assign ID.}
3. Date of First Joint Mission:	<i>First Joint Mission 12-22 October 2009</i> <i>Follow-up Joint Mission 3-11 March 2010</i>		
4. Funding request:	US \$ 1,500,000.00		
5. Type of request:	<i>Accelerated funding for phase 1:</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
6. Multilateral Development Banks/focal points:	<i>World Bank</i> <i>Asian Development Bank</i> <i>European Bank for Reconstruction and Development</i>	<i>Ron Hoffer, Environment and Water Adviser, Europe and Central Asia Region (overall MDB coordinator)</i> <i>Peter Hayes, Senior Climate Change Specialist, Country Coordination and Regional Cooperation Division, CWRD</i> <i>Craig Davies, Principal Environmental Adviser, Environment and Sustainability Department</i>	
7. National Implementing Agency:	<p align="center"><i>Government Lead – Murodali Alimardon, Deputy Prime Minister</i></p> <p align="center"><i>Implementation support from State Organization for Hydrometeorology (Committee for Environment Protection); Ministry of Energy and Industry; Ministry of Agriculture; Ministry of Land Reclamation and Water Resources; State Forestry Organisation</i></p> <p align="center"><i>Government focal point: Sultan Rahimov (new FP to be named by late June 2010)</i></p> <p align="center"><i>Operational implementation through Bank-executed procedures of the MDBs as noted below</i></p>		
8. Project Description:	<p>Key development challenges (vulnerability) related to climate variability and change:</p> <ul style="list-style-type: none"> <i>Tajikistan is the most vulnerable country in Central Asia to the projected impacts of climate change.</i> <i>Recent droughts and weather extremes have pointed out inadequacies in the climate resilience of major sectors. Threats to agricultural production and rural livelihoods (from degradation of arable land, forests, pastures and rangeland) will increase with projected higher temperatures, reduced rainfall, melting glaciers, and increased frequency of extreme events such as floods, droughts and storms.</i> <i>Tajikistan is heavily dependent on hydropower yet only 5% of its capacity is being tapped. Hydropower development can relieve domestic energy shortfalls and be helpful for regional power integration and exports though international waterways matters are complex. Climate change can add uncertainties.</i> <i>The country has limited institutional and human capacity to mainstream climate change adaptation in development plans, programs and policies</i> <i>Tajikistan has worked successfully with international and bilateral partners on projects which do have the potential for augmentation to increase climate resilience.</i> <p>Areas of intervention Focus on national priority areas: awareness raising and capacity building, energy security, sustainable land management and river-basin water management.</p> <p><u>Six technical assistance activities are proposed for financing under this Grant Proposal</u> to both feed into and complement the SPCR (which is the major product from Phase 1). The PPCR anticipates that the SPCR would be ready for consideration at the November 2010 PPCR Sub Committee meeting. Some technical assistance activities of Phase I will however be extend through much of CY2011, though the results from such activities will still be able to influence the design and/or implementation of Phase 2 investments which would then be at a formative stage.</p>		

Phase 1 technical assistance program activities (see detailed annex):

1. *Assessment of Tajikistan's institutional, technical and human at the national and local levels to mainstream climate change considerations in key policy areas, with particular focus on the requirements for taking forward the SPCR (World Bank lead)*
2. *Assessment of Tajikistan's capabilities for projecting future climate scenarios and consequent impacts on various sectors and resources, and roadmap for further development and use of climate change information (ADB lead);*
3. *Initial awareness raising events on climate change impacts, vulnerabilities and adaptation for policy makers and other stakeholders and training of trainers for future awareness raising activities (World Bank lead)*
4. *Assessment of the climate vulnerability of the hydropower sector and roadmap to increase sector's resilience and Tajikistan's energy security (EBRD lead)*
5. *An inventory and analysis of sustainable land management activities and associated land policy issues to identify investment projects and policy support program for PPCR Phase 2 (World Bank lead)*
6. *Development of a replicable methodology to identify and enhance climate resilience on livelihoods and priority investments, at the river basin level, in vulnerable areas of Tajikistan (ADB lead)*

Outcomes:

- *Improved understanding of current institutional arrangements to develop adaptation response and integrate climate change into national policies and programs*
- *Enhanced scientific evidence and understanding of Tajikistan's climate vulnerabilities and especially the potential for transformative investments to guide specific activities in water, energy, land and other sectors in the Phase 2 PPCR*

Key Results:

- *Development of a pragmatic SPCR reflecting consultation with all key PPCR stakeholders, including government, MDB's, donors, international organizations, academia and civil society.*
- *Assessment of Tajikistan's institutional, technical and human capacity at the national and local levels to mainstream climate change considerations in key policy areas, with particular focus on the requirements for taking forward the SPCR*
- *Assessment of Tajikistan's capabilities for projecting future climate scenarios and consequent impacts on various sectors and resources, and roadmap for further development and use of climate change information*
- *Initial awareness raising events on climate change impacts, vulnerabilities and adaptation for policy makers and other stakeholders and training of trainers for future awareness raising activities*
- *Assessment of the climate vulnerability of the hydropower sector and roadmap to increase sector's resilience and Tajikistan's energy security*
- *An inventory and analysis of sustainable land management activities and associated land policy issues to identify investment projects and policy support program for PPCR Phase*
- *Development of a replicable methodology to identify and enhance climate resilience on priority investments, at the river basin level, in vulnerable areas of Tajikistan*

9. **Budget (indicative):**

Expenditures	Amount (\$) - estimates
Consultants:	1,132,000
Equipment:	32,000
Workshops/seminars:	59,000
Contingencies:	75,000
Others (travel)	202,000
Total Cost	1,500,000

Other contributions (bilateral or private sector):

10. **Timeframe (tentative) – milestones**

Submission for Trust Fund Committee approval:	June 2010
Final Phase 1 Joint Mission:	September/October 2010
SPCR for Trust Fund Committee approval:	November 2010

Unofficial Translation

**To: World Bank Country Office
Dushanbe
Republic of Tajikistan**

Ref. No. 10-6 (6393)

May 31, 2010

The Ministry of Foreign Affairs of the Republic of Tajikistan presents its compliments to the World Bank Country Office in the Republic of Tajikistan and has the honor to forward a letter of the Deputy Prime Minister of the Republic of Tajikistan, Mr. Murodali Alimardon, addressed to the Country Manager of the World Bank in Tajikistan, Ms. Chiara Bronchi.

The Ministry of Foreign Affairs of the Republic of Tajikistan avails itself of this opportunity to renew to the World Bank Country Office in Tajikistan the assurances of its highest consideration.

Attachment: 1 page.

To: Ms. Chiara Bronchi
Permanent Representative
World Bank Country Office
Dushanbe
Republic of Tajikistan

Mr. Makoto Ojira
Permanent Representative
Asian Development Bank Mission
Republic of Tajikistan

Mr. Ulf Hindstrom
Head
European Bank for Reconstruction
and Development
Republic of Tajikistan

Mr. Bob Leverington
Head
Agency for International Development
Republic of Tajikistan

Ref. No. 19/5-18

May 28, 2010

I herewith would like to inform you that the Government of the Republic of Tajikistan has generally approved the Report of the Joint Program Mission submitted in the framework of the Pilot Program on Adaptation to Climate Change aimed at capacity building and creation of analytic base for scientifically grounded climate change.

I believe that the results of the forthcoming outstanding works to be done in the selected areas of cooperation and the grant financing provided for the implementation of scheduled activities will promote capacity building of the relevant structures and further improvement of measures seeking to ensure adaptation to climatic changes.

Taking this opportunity I would like to express once again my deep appreciation and gratitude for the implementation of this initiative in the Republic of Tajikistan and assure you of further strengthening of our mutual cooperation.

Sincerely,

Murodali Alimardon
Deputy Prime Minister

Pilot Programme for Climate Resilience in Tajikistan

Proposed Technical Assistance under Phase 1 Grant





Proposed Technical Assistance Activities under Phase1 Grant

Financing plan

Activity		Expected outputs	Expected outcomes	PPCR financing
A1	Review of Tajikistan’s climate change institutional arrangements and capacity needs	Assessment of Tajikistan’s institutional, technical and human capacity at the national and local levels to mainstream climate change considerations in key policy areas, with particular focus on the requirements for taking forward the SPRC	Improved understanding of current arrangements to develop adaptation responses and take forward the activities that will emerge from the SPCR, as well as a road map for strengthening the ability of GoT to include the likely impacts of climate change into future national policies and programmes	\$150,000
A2	Tajikistan’s Climate Science and Impact Modeling Partnership	Assessment of Tajikistan’s capabilities for projecting future climate scenarios and consequent impacts on various sectors and resources, and roadmap for further development and use of climate change information	Enhanced scientific evidence and skill base for national policy making	\$350,000
A3	Raising awareness of climate change in Tajikistan	Initial awareness raising events on climate change impacts, vulnerabilities and adaptation for policy makers and other stakeholders and training of trainers for future awareness raising activities	Enhanced understanding of the Tajikistan’s vulnerabilities and increased sustainability of national and local development plans and PPCR activities. Enhanced ability to exercise influence internationally and leverage funds	\$100,000
A4	Identifying options for enhancing the climate resilience of Tajikistan's energy sector	Assessment of the climate vulnerability of the hydropower sector and roadmap to increase sector’s resilience and Tajikistan’s energy security	Enhanced knowledge base to inform national energy plans and potential actions on the energy sector in the PPCR Phase 2	\$300,000
A5	Analysis of sustainable land management approaches for changing climatic conditions in Tajikistan	An inventory and analysis of sustainable land management activities and associated land policy issues to identify investment projects and policy support programme for PPCR Phase	Improved access to information on sustainable land management and climate change and enhanced understanding of the opportunities and constraints of land and other policy reform processes. Identification of opportunities for Phase 2 investment	\$200,000
A6	Analysis of river basin approaches to climate resilience	Development of a replicable methodology to identify and enhance climate resilience on priority investments, at the river basin level, in vulnerable areas of Tajikistan	Enhanced ability to climate proof investments at the river basin level	\$400,000
Total				\$1,500,000





Executive Summary

Tajikistan's PPCR Technical Assistance Activities under Phase 1 (Phase 1 TA) aim to strengthen Tajikistan's **capacity** and **analytical evidence base** in order to increase the climate resilience of Tajikistan's development policies and programmes and help design an investment plan under the PPCR – the Strategic Programme for Climate Resilience (SPCR). Tajikistan's Phase 1 TA will contribute to initiate a transformational shift in development planning towards greater climate resilience and create an enabling environment for coordination mechanisms that could support PPCR activities in Phase 1 and Phase 2. It will also increase the ability of Tajikistan to exercise influence and leverage funds internationally. Attention will be given to the adverse effect of climate change to socio and economic development and poverty eradication, examining the role of local institutions, “indigenous” knowledge on adaptation to recent climate variability, as well as the role of women in contributing to livelihood strategies adapted to changing climatic and environmental conditions.

Tajikistan's Phase 1 TA comprises two types of initiatives:

- **Cross-cutting activities** aim to build capacity and raise awareness on climate change in order to strengthen institutional arrangements for developing robust scientific evidence, effective decision making on climate change and engaging internationally;
- **Sectoral activities** aim to assess the climate vulnerability and identify climate risks, gaps and opportunities for future interventions in the energy, land management and river-basin (water) sectors; these have been identified as three of the most vulnerable economic sectors of Tajikistan with direct impacts on people's lives and livelihoods.

This proposal includes 6 recommended activities with an overall funding requirement of \$1.5 million. These are:

A1 Institutional analysis & capacity needs for climate resilience (\$150,000), aimed at reviewing government structures and national policies and provide recommendations for successful integration of climate resilience in development programs, inter-Ministerial cooperation and recommend and effective engagement with CSOs, the donor community, and local institutions.

A2 Tajikistan Climate Science and Impact Modelling Partnership (\$350,000), aimed at reviewing current capabilities for projecting future climate scenarios and consequent impacts on various sectors and resources. National and international experts will work together to assess options for possible modelling improvements or products needed to inform both PPCR Phase 2 investments and the future 3rd National Communication to the UNFCCC.

A3 Awareness-Raising (\$125,000), aimed at building understanding amongst Government and others on projected climate change impacts and approaches to enhance climate resilience of vulnerable sectors through workshops and learning events in Dushanbe and elsewhere in the country. This activity will also help design a larger capacity-building effort in Phase 2. A national conference on climate change risks and adaptation in Tajikistan will be organized under this activity to bring together the findings of the PPCR Phase 1 Technical Assistance.

A4 Enhancing the Climate Resilience of Tajikistan's Energy Sector (\$300,000), aimed at assessing the climate vulnerability of the energy sector, with a particular





focus on hydropower, and provide recommendations for how investments in this sector could improve Tajikistan's energy security.

A5 Analysis of Sustainable Land Management Approaches for Changing Climatic Conditions in Tajikistan (\$200,000), aimed at reviewing sustainable land management activities now underway in the country, as well as review associated land policy issues that can help identify investment projects and policy support programs that could be demonstrated under Phase 2.

A6 Analysis of River Basin Approach to Climate Resilience (\$400,000), aimed at developing a methodology for enhancing climate resilience at the river basin level in vulnerable areas of Tajikistan. An analytical assessment will be conducted on the benefits and challenges of applying a cross-sector ecosystem-based approach to identifying and implementing climate resilience measures in existing infrastructure and sector development projects. This will be demonstrated in the national river basin segment.

Tajikistan's Phase 1 TA is a **partnership** among the Government of Tajikistan, the World Bank (WB), the Asian Development Bank (ADB), the European Bank for Reconstruction and Development (EBRD) and the International Finance Corporation (IFC). The programme was devised by building on the findings of the PPCR Joint Programming Mission, which took place in October 2009, and by continued consultations with a wide range of stakeholders in Tajikistan, including government departments and ministries, international organizations, international financial institutions, bilateral donors and civil society.

The activities proposed in the PPCR Technical Assistance are **aligned with national priorities** and reflected in Tajikistan's Second National Communication to the UNFCCC¹, are consistent with aims of the National Development Strategy² and Joint Country Partnership Strategy (JCPS)³, and are likely to be consolidated in the third Poverty Reduction Strategy (PRS-3) currently under preparation.

¹ http://unfccc.int/national_reports/non-annex_i_natcom/items/2979.php

² http://www.untj.org/principals/files/nds/nds_first_draft.pdf

³ www.adb.org/Tajikistan



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1 Overview of Tajikistan's key climate vulnerabilities

Tajikistan is a land-locked country located in south-east Central Asia. Mountains occupy about 93% of the terrain, whereas glaciers make up 6% of the total country area. The rivers of Tajikistan are the main sources of water replenishing the Aral Sea and provide neighbouring areas with water for irrigation and power generation.

With a population of 7.2 million and a gross domestic product of around \$751 per capita⁴, Tajikistan has the lowest GDP per capital of the countries in the Central Asia⁵. The civil war, the general economic contraction and the loss of social services caused a drastic deterioration in overall living conditions. Poor land management practices and the environmental legacy of the Soviet central planning, combined with a multitude of problems such as crumbling infrastructure, onerous external debt, increasing feminisation of poverty and limited institutional capacity, threaten the sustainability of Tajikistan's economic, social and human development. Climate variability and change are likely to pose additional and significant risks to the country's economic drivers, human welfare and the environment.

The country has already been impacted by recent current climate variability. Projected climate change and extreme events, such as glaciers retreats, floods, droughts and mudslides, pose real threats to food security, water security, energy security, human health and the achievement of development goals in the country. A description of Tajikistan's climate vulnerability is provided in Annex 8.1.

The adverse effects of climate change will be felt most acutely by those parts of the population that are already vulnerable owing to gender, youth, age and disability. The poor are most vulnerable to the effects of climate change in Tajikistan. A large proportion of the population live just above the poverty line in Tajikistan and climatic shocks have the potential to tip a large percentage of population into poverty. Climate change is likely to compound existing food security issues and impact heavily upon those dependent on the agricultural economy. The distributional effects are more likely to fall upon those involved in subsistence agriculture or pastoralism. Women and children are particularly vulnerable to the effects of climate change in Tajikistan. They constitute the majority of the country's poor, are often charged with the responsibility to secure water, food and fuel for cooking and heating in Tajikistan's rural areas and are dependent for their livelihood on natural resources that are threatened by climate change. Despite women's responsibilities in households and communities and their expertise positions them well to contribute to livelihood strategies adapted to changing climatic conditions, they face social, economic and political barriers that limit their coping capacity.

Despite the additional threats posed by changing climatic conditions, the country's increased political stability since the signing of the peace agreement in 1997 provides the opportunity to tackle these problems and move from mainly humanitarian assistance to country-driven and climate-resilient development. The Pilot Programme for Climate Resilience could make a valuable contribution to this development shift.

⁴ Tajikistan's GDP per capita (current US\$) is \$751 (2008 estimate), GDP per capita PPP (current international \$) is \$PPP 1,906 (2008 estimate). Source: World Development Indicators (WDI), September 2009.

⁵ Central Asia. Business and Economy. Economic Cooperation Organisation (ECO) <http://en.reingex.com/Central-Asia-Business-Economy.asp>





The first Joint Programming Mission, which was held from 12 to 22 October 2009, confirmed that Tajikistan faces significant threats from climate change. Field visits and stakeholder consultations highlighted that there are significant socio-economic and environmental challenges that will be exacerbated by climate variability and change. Because of its “adaptation deficit” and the urgent need for additional capacity, targeted strategies and informed action plans, Tajikistan’s vulnerability can only increase with projected climate change.

The Joint Mission and the stakeholder consultations that followed identified priorities for PPCR development themes at all level of governance but it was felt that activities in Phase 1 should focus on the national and sectoral levels. *At the national level*, efforts should focus on the institutional arrangements for integration of climate change into national and sectoral plans, raising awareness in government and improving climate change data and information. This enhanced national capacity can lead to greater engagement in the international sphere as well, allowing Tajikistan to exercise greater influence and leverage funds for mainstreaming climate change in developments policies and programmes. *At the sectoral level*, efforts should be focused on the highest priorities of land management and rural development, as well as energy security, river-basin (water) security, and eco-system sustainability. Attention should also be given wherever possible to examining the role of local institutions, “indigenous” knowledge on adaptation to recent climate variability and the role of women in contributing to livelihood strategies adapted to changing climatic and environmental conditions.

The PPCR Phase 1 Technical Assistance provides the opportunity to start unfolding these priorities in more detail by:

- Devising a framework for strengthening institutional, technical and human capacity to facilitate the integration of climate change as a crosscutting issues amongst a number of policy areas;
- Assessing the climate vulnerabilities of the land management and rural development, energy, and river-basin (water) sectors - thematic areas that have a direct impact on poverty and vulnerability of a large portion of Tajikistan’s population, as well as identifying priorities for scaling up current efforts aimed at increasing the climate resilience of key economic sectors, and for further risk management action;

There is wide consensus amongst Tajikistan’s government, multilateral donors and civil society operating in the country that the PPCR Phase 1 Technical Assistance could achieve these objectives through the creation of a solid institutional and knowledge base in Phase 1, which will facilitate the effective implementation of the PPCR Phase 2.

2 National level climate resilience and PPCR linkages to national processes

The Committee of Environment Protection of the Republic of Tajikistan is the state planning and regulatory entity for natural resources management and environmental protection. The State Organisation for Hydrometeorology Institute under the Committee for Environment Protection is a coordinating state entity for weather and climate, as well as the implementing authority of the UN Framework Convention on Climate Change (UNFCCC).

The Committee of Environmental Protection has the mandate for climate change adaptation and mitigation. Other Ministries play key roles on climate change in Tajikistan, for example





through the CDM centre under the Ministry of Energy and Industry. Awareness of adaptation to climate change as a cross-sectoral issue is increasing in Tajikistan's institutions, including the Committee for Emergency Situation, the Ministries of Land Reclamation and Water Resources, Energy and Industry, Economic Development, Health and Agriculture and Melioration, and civil society.

In terms of national policies, plans and programmes, the appointment of a Committee with specific responsibility for environmental protection in April 2008 has contributed to raising the profile of environmental issues in the government of Tajikistan (GoT)'s political agenda. The GoT has adopted more than 30 laws and bylaws in the area of nature protection, and developed a number of national environmental programmes and national action plans.

However, the institutional arrangements for adaptation in Tajikistan are not yet fully defined and climate change does not seem to be taken into account in most of Tajikistan's national development policies, plans and programmes⁶. According to the consulted stakeholders, national and sectoral plans do not provide a strategy for dealing with existing climate change stresses, nor do they address increased severity and frequency of climatic extreme events. It is thus unlikely that existing policies, plans and programmes are sufficient in scope and scale to meet the challenges indicated by climate projections or in promoting climate resilient sustainable development.

An initial stock-taking of donor activity in Tajikistan identified a number of projects and programmes that are relevant in the context of climate change adaptation in the country. A range of activities is taking place in Tajikistan in the areas of Disaster Risk Management, water resource management, energy security, agriculture, land management, health and social development. A Joint Country Partnership Strategy⁷ was signed by twelve development partners to facilitate more effective coordination amongst donor's activities.

However, it is also becoming evident that there is a real need to widen the net of climate change related activities in the country, and that the need for co-ordination and collaboration will increase as the scope of interventions broadens. A number of additional gaps in the basic institutional framework were identified, including:

- Severe weakness in national systems for acquiring and managing basic data on meteorology and hydrology, with severe implications for assessing near and longer term climate trends, and limited access to climate change information;
- Key gaps in the science base, especially on the implications of changes in hydrology, glacial melt and climate impacts in mountainous terrain;
- Low awareness of government officials, business entities, and the public on the adverse risks and impacts of climate change;

⁶ See for example the National Development Strategy (NDS) for 2006-2015, the National Environmental Action Plan (NEAP), the National Sustainable Development Strategy – forthcoming, the National Disaster Risk Management Strategy and Action Plan, and the Second Poverty Reduction Strategy (PRS 2) for 2007-2009. The Third Poverty Reduction Strategy (PRS-3) currently under development is likely to address climate change.

⁷ The Joint Country Partnership Strategy 2010 – 2012 was signed by Aga Khan Foundation, Asian Development Bank, European Bank for Reconstruction and Development, European Commission, Germany, Organisation for Security and Cooperation in Europe, Swedish International Development Cooperation Agency, Swiss Cooperation, UK Department for International Development, United Nations Agencies, United States Agency for International Development, and World Bank Group.





- Lack of qualified personnel in government, academia and education system;
- Low understanding of key socio-economic vulnerabilities, and the consequences of climate variability and change to the key indicators of human development in the country; and
- Lack of integration of climate change impact assessments and risk management in national development strategies and sectoral investment plans.

Activities proposed under Phase 1 will contribute to build capacity on and raise awareness of climate change risks and adaptation responses in Tajikistan's institutions, as well as to assessing the climate vulnerability of key economic sectors. The findings of Phase 1 will inform investments in Phase 2. It is recognised that, to be most effective, the core of Phase 2 will be focused on a selected number of concrete actions that can be scaled up to introduce adaptation responses and embed 'good practice' into a number of key development sectors.

3 Priorities for Tajikistan's Strategic Programme for Climate Resilience

PPCR will not be able to address all challenges in Tajikistan. For the PPCR to be truly "transformational" (given its limited time and budget), interventions would have to be carefully targeted and selective.

The added value of the PPCR is demonstrated by, at least, the following elements:

- Providing the opportunity to move further away from a reactive type of assistance to a more proactive approach by expanding the time horizon taken into account in the planning of government-financed and donor-supported investments;
- Being a catalyst for coordination amongst relevant ministries and policy departments in the GoT, and with multilateral and bilateral donors operating in-country and in the region;
- Contributing to the development of institutional mechanisms that ensure a focus on climate impacts and adaptation, and the building institutional and human capacity in areas relevant to climate resilience; and
- Supporting the creation of a solid knowledge-base (grounded in climate change impact science and risk management expertise) for adaptation-related policy making that strives to keep people-centric development at the crux of the climate change discourse.

The following themes have emerged as key priorities⁸ for the PPCR in Tajikistan:

Country - level actions

- a) Building stronger linkages between overarching goals of **poverty reduction and human development** through technical interventions that respond to climate change threats.
- b) Strengthening the capacity of the country to produce and utilise better **climate data and climate science**;
- c) Enhancing **institutional structure** and improving ability of line ministries to engage in inter-sectoral dialogue on climate risk management policies and measures; and

⁸ These priority areas are reflected in Tajikistan's Second National Communication to the UNFCCC, are consistent with aims of the National Development Strategy and Joint Country Partnership Strategy (JCPS), and are likely to be consolidated in the third Poverty Reduction Strategy (PRS-3), which has just been approved by the government.





Sector - level actions:

- a) Reducing the vulnerability of the **energy sector** to climate shocks and longer term climate variability;
- b) Improving country capacity to deal with **climate-related disasters**, particularly those affecting the most vulnerable groups and sectors;
- c) Building resilience of the **agricultural and land management sector** to reduce its vulnerability to climate change threats and promote sustainable livelihoods and ecosystems;
- d) Building resilience of the **river-basin (water) sector** and enhancing the ability to climate proof priority investments at the river basin level.

Project - level actions:

- a) Advancing **climate risk screening of projects** and support longer-term sustainability of existing and future investments;
- b) Empowering **vulnerable groups**, particularly the rural poor, women, youth and indigenous groups through a participatory framework.

Local and community - level actions:

- a) Ensuring consideration of the needs and participation of **vulnerable groups**, particularly the rural poor, women, children and minority groups.

Possible areas for investment support in Phase 2 may include:

- building national capacity at all levels for understanding climate impacts and building resilience;
- major rehabilitation of the basic system for acquiring and managing HydroMet data (taking into account proposals already in play with Government);
- strengthening national systems for climate science and impact modelling;
- applying climate resilience approaches to improve resilience of multi-faceted river-basin investments;
- demonstrating investments to improve climate resilience of hydro energy;
- enhancing the climate resilience of agriculture landscapes, such as rangelands and irrigated agriculture, food security and rural livelihoods.

The common theme running across the range of suggested investments and also serving as a guiding framework, will be their direct and causal link to poverty reduction, improved living standards and overall human and social development of the people of the Republic of Tajikistan

4 PPCR Phase 1 Technical Assistance in Tajikistan

The overarching goal of the Phase 1 Technical Assistance in Tajikistan is to present a framework for climate resilience at a national level that can cascade down to Ryons/Jamoats and to communities and people.

The Tajikistan's PPCR Phase 1 Technical Assistance (Phase 1 TA) is divided into two components:

- *Cross-cutting activities* will raise awareness amongst Government and other actors, and identify ways of enhancing the institutional, technical and human capacity of the



country to integrate climate change risks into the decision making process and design adaptation responses based on robust climate information;

- *Sectoral activities* will assess the climate vulnerabilities of the energy and land management sectors; two key priority sectors of Tajikistan's economy that have a direct impact on the lives and livelihoods of the people in Tajikistan

Both components of the Phase 1 Technical Assistance will contribute to the creation of a comprehensive institutional and evidence base, which will enable Tajikistan to devise the Strategic Programme for Climate Resilience and take forward the investment and development plans in Phase 2.

This proposal includes 6 recommended activities with an overall funding requirement of \$1.5 million. These are:

A1. Institutional analysis & capacity needs for climate resilience. The objectives are to review government structures and national policies to identify where government capacity can be strengthened in order to enable successful integration of climate resilience in development policies, plans and programmes. It will also examine modalities for inter-Ministerial cooperation and recommend a framework to encourage and facilitate effective engagement with civil society organisations (CSOs), the donor community, and local institutions. It is expected to last 8 months, with a budget of \$150,000. The Government counterpart is proposed as the Executive Office of the President.

A2. Tajikistan Climate Science and Impact Modelling Partnership. The objective is to review current capabilities in Tajikistan for projecting future climate scenarios, and assessing consequent impacts on various sectors and resources to prioritize incremental adaptation investments. To carry out the review, national experts from the Tajik Hydromet and other national institutions will work together with international experts to assess possible modelling improvements or products needed to inform both PPCR Phase 2 investments and the future 3rd National Communication to the UNFCCC. It is expected to last 10 months, with a budget of \$350,000 under the leadership of the Asian Development Bank. The Government counterpart would be the State Organisation for Hydrometeorology Institute under the Committee for Environment Protection.

A3. Awareness-Raising. The objective is to enhance the understanding amongst Government and others regarding projected climate change impacts on Tajikistan, and approaches to enhance climate resilience of vulnerable sectors. This Phase 1 activity (comprising a few workshops and learning events in Dushanbe and elsewhere in the country) will also help design a larger capacity-building effort in Phase 2. A national conference on climate change risks and adaptation in Tajikistan will be organized under this activity to bring together the findings of the PPCR Phase 1 Technical Assistance. This activity is expected to last 12 months, with a budget of \$100,000 under the leadership of the World Bank. The Government counterpart will be identified through further discussions with the Executive Office of the President.

A4. Enhancing the Climate Resilience of Tajikistan's Energy Sector. The objective is to assess the climate vulnerability of the energy sector, with a particular focus on hydropower, and provide recommendations for how investments in this sector could improve Tajikistan's energy security. It is expected to last 6 months, with a budget of \$300,000 and will be executed under the management of the European Bank for Reconstruction and Development. The Government counterpart would be the Ministry of Energy and Industry.



A5. Analysis of Sustainable Land Management Approaches for Changing Climatic Conditions in Tajikistan. The objective is to prepare an inventory of and review sustainable land management activities now underway in the country, as well as review associated land policy issues that can help identify investment projects and policy support programs that could be demonstrated under Phase 2. It is expected to last 5 months, with a budget of \$200,000 under WB management. The Government counterparts are the Ministry of Agriculture and Ministry of Forestry.

A6. Analysis of River Basin Approach to Climate Resilience. The objective is to develop a replicable methodology to identify and enhance climate resilience at the river basin level in vulnerable areas of Tajikistan. Analysis will be conducted on the benefits and challenges of applying a cross-sector ecosystem-based approach to identify and implement climate resilience measures in existing infrastructure and sector development projects. This will be demonstrated in the Pyanj national river basin. It is expected to last 10 months, with a budget of \$400,000 under ADB management. The Government counterpart is the Ministry of Land Reclamation and Water Resources.

A summary of the above 6 recommended activities for the Phase 1 Technical Assistance is provided in Table 1.

Figure 1 shows a schematic of Phase 1 Technical Assistance and indicates how the results of Phase 1 will feed into Phase 2.



Figure 1 Framework of Tajikistan's PPCR Phase 1 Technical Assistance





Pilot Program for Climate Resilience - Tajikistan

Table 1 Description of activities proposed for grant assistance

Activity	Topic	Budget	Lead MDB	GoT POC	Objective	Outcomes	Comments from stakeholder dialogue
A1	Institutional analysis & capacity needs	\$150K	WB-IBRD	Office of the President	To review and assess Government structures and policy planning functions that may be barriers to more effective integration of climate resilience in development programs. To examine modalities for inter-Ministerial cooperation and engagement of CSOs, the donor community, and local institutions.	Improved understanding of current arrangements to develop national adaptation responses and take forward the activities that will emerge from the SPCR, as well as a road map for strengthening the ability of GoT to include the likely impacts of climate change into future national policies and programmes	Take into account GoT overall high-level and expert level coordination arrangements; focused effort - not full Gvt sustainable development review
A2	Climate Science	\$350K	ADB	State Organisation for Hydrometeorology Institute under the Committee for Environment Protection	To review current capabilities in Tajikistan for projecting future climate scenarios and consequent impacts on various sectors and resources. To establish a panel of international and local experts to assess possible modeling improvements or products needed to inform both PPCR Phase 2 investments and the future 3 rd National Communication to the UNFCCC.	Enhanced scientific evidence and skill base for national and sector-wide adaptation policy making	Priority to local expert and review of national needs; modelling improvement over 2 nd National Communication TBD given time, budget and data; will shape Phase 2 Climate Science and impact modelling proposal. Probable Hydromet Strengthening proposal for Phase 2 is related but independent.
A3	Awareness raising	\$100K	WB-IBRD	TBD	To enhance the understanding amongst Government and others regarding projected climate change impacts on Tajikistan, and approaches to enhance climate resilience of vulnerable sectors. This activity comprises a few workshops and learning events in Dushanbe and elsewhere in the country. It will also help design a larger capacity-building effort in Phase 2.	Enhanced understanding of the Tajikistan's vulnerabilities and increased sustainability of national development plans and PPCR activities. Enhanced ability to exercise influence internationally and leverage funds	Must start process of awareness-raising beyond Government and to locals; awareness raising effort must set stage for continuing work in Ph 2 and be sustained during and beyond the PPCR.
A4	Enhancing the climate resilience of Tajikistan's energy sector	\$300K	EBRD	Min of Energy	To assess the climate vulnerability of the energy sector, with a particular focus on hydropower, and provide recommendations for improving Tajikistan's energy security.	Enhanced knowledge base to inform national energy plans and potential actions on the energy sector in the PPCR Phase 2	Looking at small/medium and large hydro; rehab greenfield; set stage for Phase 2
A5	Review of sustainable land management approaches	\$200K	WB-IBRD	Min of Agriculture	To produce an inventory and review sustainable land management activities now underway in the country, as well as review associated land policy issues that can help identify investment projects and policy support programs that could be demonstrated under Phase 2.	Improved access to information on sustainable land management and climate change and enhanced understanding of the opportunities and constraints of land and other policy reform processes. Identification of opportunities for Phase 2	Will take broad view of all approaches (including key policy aspects) to guide Phase 2 investment selection
A6	Analysis of river basin approach to climate resiliency	\$400K	ADB	Min of Land Reclamation and Water Resources	To develop a replicable methodology to identify and enhance climate resilience at the river basin level in vulnerable areas of Tajikistan. Analysis will be conducted on the	Enhanced ability to climate proof investments at the river basin level	Stakeholders supported river basin approach; link to suggested pilot in Khatlon section of Pyanj river basin.



Pilot Program for Climate Resilience - Tajikistan

Activity	Topic	Budget	Lead MDB	GoT POC	Objective	Outcomes	Comments from stakeholder dialogue
					benefits and challenges of applying a cross-sector ecosystem-based approach to identify and implement climate resilience measures in existing infrastructure and sector development projects. This will be demonstrated in the Pyanj national river basin		





An overarching scheme for the potential coordination of the proposed Phase 1 activities has been suggested at the policy, expert and programme levels. This could be carried out through the work of the following coordination mechanisms, including for example:

- an inter-ministerial committee, which would ensure engagement of senior policy makers of the government of Tajikistan;
- an expert group, which would ensure good communication amongst the experts involved in the proposed activities; and
- a steering committee that would provide overall guidance and direction.

Activities are expected to start in June 2010. Figure 2 shows a provisional work plan for Tajikistan’s Phase 1 Technical Assistance.

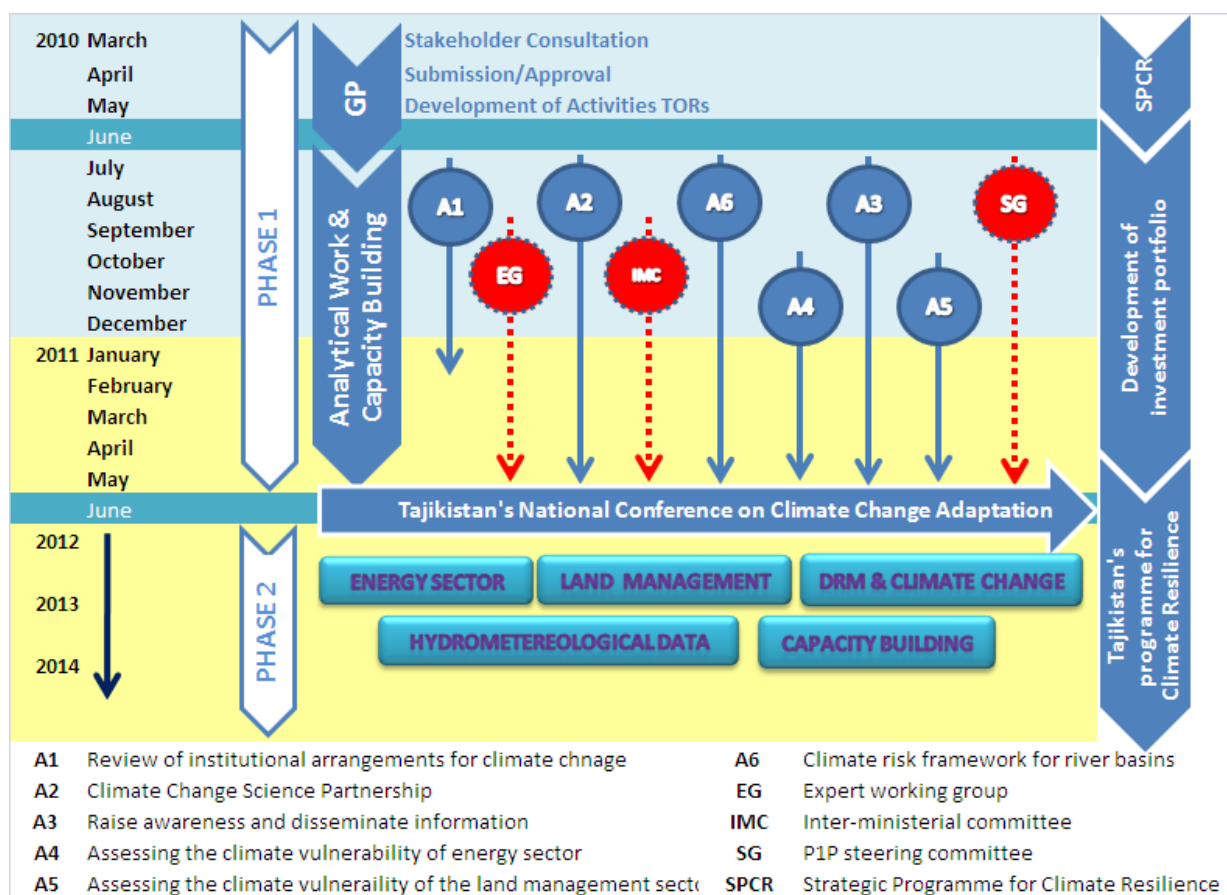


Figure 2 Phase 1 Technical Assistance work plan

The activities proposed in the Phase 1 Technical Assistance are the result of a continued consultation process and build on the priorities identified in a number of government’s plans and programmes. The Phase 1 Technical Assistance addresses the need to enhance the country’s understanding of the risks that climate change may pose to its existing and future development plans and identify a route for addressing urgent national challenges. The activities proposed in the PPCR Technical Assistance are **aligned with national priorities** and are consistent with the aims of the National Development Strategy⁹ and the Joint Country

⁹ http://www.untj.org/principals/files/nds/nds_first_draft.pdf



Partnership Strategy (JCPS)¹⁰, and are likely to be consolidated in the third Poverty Reduction Strategy (PRS-3) currently under development.

5 Organisational capacity to implement the proposed activities

The PPCR program documents specify that funding would originate from the multi-donor Trust Fund (managed by the CIF Admin unit), and channelled through the relevant MDB who would then utilise their standard procurement procedures for goods and services. Considering that the range in Phase 1 analytical needs is broad, and timeframes for tasks are relatively short, it is proposed that MDBs share responsibilities for administering the Phase 1 Technical Assistance. The suggested allocation of MDB tasks reflects each MDB's particular interest and experience on the issue.

Implementation arrangements by MDB were described to the stakeholders and Government on the mid-term mission, which took place in March 2010 (see section 8.3). In all cases, the MDB procedures allow for hiring of local specialists in addition to international experts. EBRD and ADB procedures applicable to Phase 1 do not include channelling of funds through the Government budget, but specialists may be hired through these MDB contracting arrangements and as needed, can be housed in Government entities. This is a practical and routine approach for implementation of both technical assistance and investments. These two MDBs do have well established procedures for engaging Government in key formal decisions regarding scopes of work.

The World Bank generally prefers that Phase 1 technical assistance is carried out through a recipient-executed grant, where funds are channelled through Government upon signing of legal documents. This can take several months longer than the Bank-executed approach utilized by ADB and EBRD. As the World Bank also routinely manages Bank-executed technical assistance, this option can also be explored with the CIF Admin unit management if desired by the Government of Tajikistan.

6 Approach adopted for the development of the proposal & guiding principles

The development of the Tajikistan's PPCR Phase 1 Technical Assistance was underpinned by wide stakeholder consultation and a strong participative approach. Figure 3 provides an overview of the consultations that have been conducted, together with those which are planned, to identify priority areas for Tajikistan's PPCR.

¹⁰ www.adb.org/Tajikistan

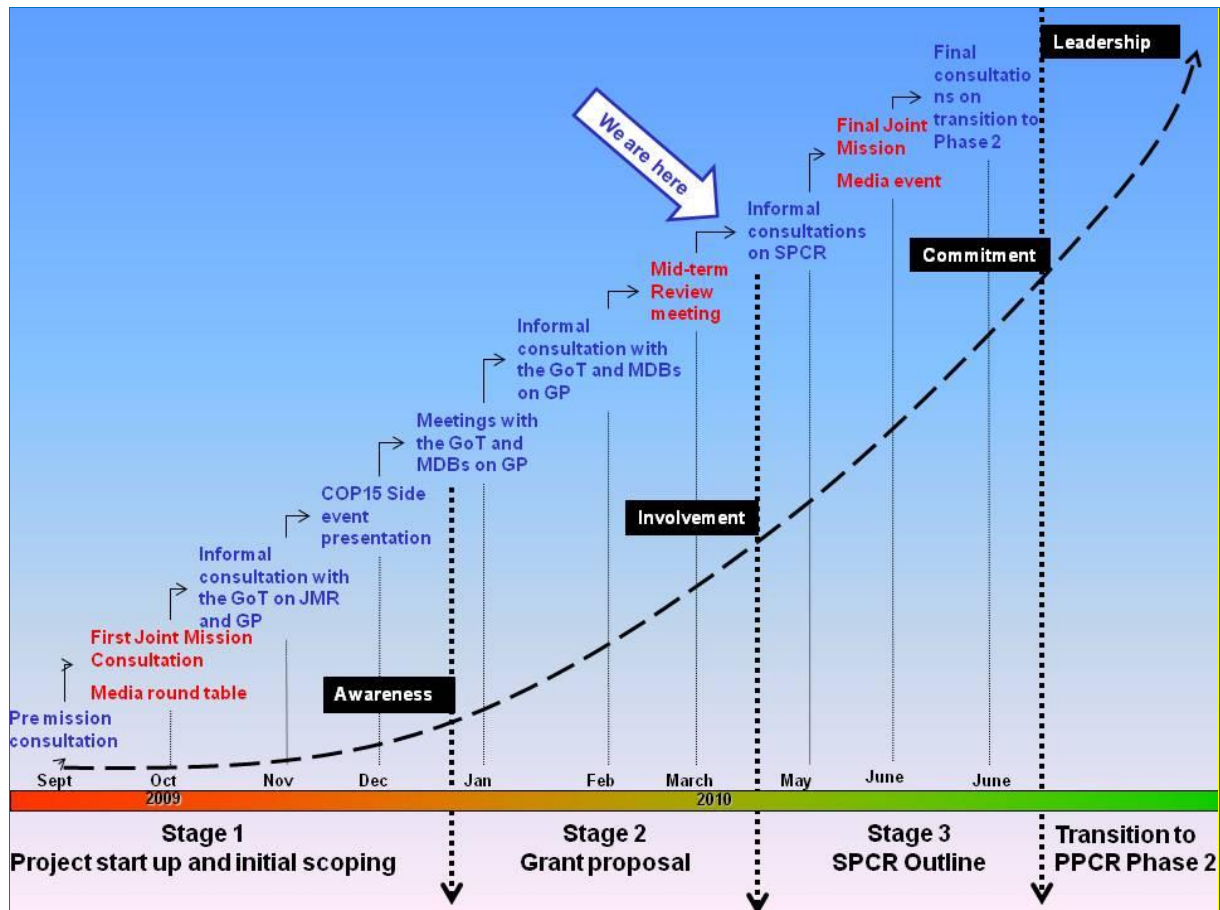


Figure 3 Schematic of engagement plan for Tajikistan's PPCR

Some of the key milestones in the consultation that led to the development of the proposed Phase 1 Technical Assistance include:

- Pre Joint Mission meetings and consultations with GoT, multi-laterals, bi-laterals and NGOs. Work began with a preliminary consultation with a wide range of stakeholders in September 2009, with the aim to prepare the ground for the first Joint Programming Mission last October.
- The First Programming Mission took place in October 2009. The mission held a wide stakeholder consultation and met with communities on the ground to identify climate vulnerabilities and priorities areas for the PPCR.
- Informal consultation and meetings with the relevant MDB country missions, government and non-government stakeholders were held in the following months (November, December and January). Line ministries were consulted and contributed directly to the concept development of the activities to be proposed for grant assistance.
- Informal follow up meetings were held with a wide range of government and non-government stakeholders in February 2010. This consultation clarified further the expectations of the stakeholders and guided the design of the PPCR Phase 1 Technical Assistance
- A mid-term Joint Mission was held from 4 to 11 March 2010 in Dushanbe. In order to create consensus on the activities proposed for grant assistance, the Mission held a workshop with government and non-government experts, as well as meetings with



international organisations and civil society. The detailed programme of the mid-term mission and the stakeholder workshop are enclosed in Annex 8.3

The result of these consultations allowed a balance to be struck between the aspiration for immediate action on the ground and the need for strategic planning to ensure long-term impact.

The following principles were also highlighted by stakeholders as guiding principles for the PPCR Phase 1 Technical Assistance in Tajikistan:

- *Capacity building* of national institutions and expertise base in a *learning by doing* manner, for example through the involvement of local experts in the project teams, as a means to strengthen national capacity and ensure the *sustainability of the Phase 1 Technical Assistance results*;
- *Meaningful engagement of stakeholders* throughout the duration of all PPCR activities, including the involvement of government departments and ministries, civil society and international organisations;
- *Coordination with international processes and other donors' initiatives in the country*. Phase 1 Technical Assistance activities will build upon current and planned relevant initiatives in the country and will contribute to enhance Tajikistan's capacity to exercise influence internationally and leverage funds.
- *Transformational impact*. The Phase 1 Technical Assistance will also aim to identify possible areas and practices for PPCR support that have a positive impact on a large portion of the population and could be scaled-up and/ or replicated across a wider area of the country.

These principles are reflected in the specifications of the Phase 1 Technical Assistance activities described in Section 7.



7 Description of the activities of the Tajikistan Phase 1 Technical Assistance

7.1 Cross Cutting themes

Activity A1	7.1.1 Review of Tajikistan’s climate change institutional arrangements and capacity needs
Government Contact	<i>Executive Office of the President</i>
MDB Contact	<i>The World Bank</i>
Objective of the proposed activity	<i>To produce an assessment of Tajikistan’s institutional, technical and human capacity at the national and local levels to mainstream climate change considerations in key policy areas, with particular focus on the requirements for taking forward the SPRC</i>
Expected duration	<i>8 Months</i>
Expected level of funding	<i>\$150,000</i>
Section One: Justification	
<p>A core objective of the PPCR is to create an enabling environment for “integrating consideration(s) of climate resilience in national development planning consistent with poverty reduction and sustainable development goals”¹¹. An initial review of Tajikistan’s existing national strategies and action plans indicates very limited engagement with climate change and subsequent adaptive responses. Strategies that have only been completed this year, such as the PRS-3 (Poverty Reduction Strategy) and the National Disaster Risk Management Strategy of Tajikistan, fall considerably short on adequately addressing climate change impacts on development priorities. There are particular gaps in understanding local climate-change adaptation approaches.</p> <p>The Joint PPCR Programming Mission (12 – 22nd Oct 09) and subsequent stakeholder consultations identified significant gaps in current institutional structures in integrating climate change considerations into national policies and programmes. Climate change is a relatively new and unfamiliar issue at a government and institutional level in Tajikistan. While the GoT has demonstrated both interest and commitment to moving forward on adaptation, they also recognize that climate change is still a fairly under-developed policy discourse in the country. Most line ministries understand that climate change is a threat and recognise the need to enhance their knowledge of the impacts of climate change on their particular policy area. However, the lack of technical and human capacity of national institutions to mainstream climate change into policy and programmes though fairly obvious has not yet been addressed.</p> <p>To ensure that this trend does not continue and that future development planning is successful in integrating climate change considerations, it is critical that technical and human capacity on climate change is strengthened within national institutions and policy making bodies. Therefore it is necessary for Phase I of the PPCR to undertake an analytical piece, reviewing institutional structures (national and community-based) and government policies in order to identify where there are current gaps that hinder climate change integration across the country. This is in line with the considerable interest and commitment of the government.</p> <p>Recommendations developed from this study will be presented as a prioritised list of areas where capacity development will need to take place if the GoT is to successfully integrate climate change considerations into its development policy planning.</p>	
Section Two: Objectives	
<p>The main objectives of this activity are to:</p> <ol style="list-style-type: none"> i) Conduct a capacity needs assessment of existing national government institutions in Tajikistan for their capacity to understand and respond to the challenges of climate change. This may include consideration of local and community-based institutions. ii) Identify those areas that require immediate technical and human capacity development to enable the key national, local and community-based institutions to successfully integrate climate change considerations into development policies and programmes. iii) Prepare a gap analysis clearly indicating key areas where institutional capacity needs to be 	

¹¹ The Pilot Programme for Climate Resilience under the Strategic Climate Fund.
<http://www.climateinvestmentfunds.org/cif/keydocuments/PPCR>





- developed further to enable successful mainstreaming of climate change in development policies and programs (including government budget and finance).
- iv) Prioritise capacity development needs according to most urgent that can be completed in the near to short term and have maximum impact. These can potentially be considered for PPCR Phase II investments.

Section Three: Description of methodology and possible tasks to be undertaken under the activity

This activity will comprise the following components:

- i. *Institutional structure of the Government of Tajikistan*
A necessary first step for this activity is to collect and summarise information on the current structure of government institutions in Tajikistan. This task will require close consultation with government officials at national and local levels and non-state governance experts. Information shared by stakeholders will be accurately represented through a series of organisational charts that will be developed to highlight key responsibilities and linkages. A set of government institutions will be identified as the target group for the climate change assessment review based on their likely impact in mainstreaming climate change at a broader country level, and with reference to the best practice in countries where climate impacts and resilience are being effectively integrated into policy development and planning approaches. The analysis may include the legislative and statutory framework, as well as the normative guidelines and practices that affect coordination across government levels and with civil society.
- ii. *Review of key development and sectoral plans, programmes and policies of the Government of Tajikistan*
This task will gather information on the extent to which existing plans, programmes and policies incorporate / address the issue of climate change. This will primarily be a desk based review examining a mix of overall development policies and programmes and specific sectoral plans. Key national policies such as the National Development Strategy and programmes especially in relevant areas such as water resource management, hydropower and agriculture and land management will be reviewed. Section Five provides a more detailed list of national action plans, etc.
- iii. *Understanding roles, responsibilities and linkages*
This component will combine some desk research with face-to face interviews with key persons in relevant ministries and other organisations (e.g. Jamoats, committees, NGOs) that have contributed to the design and/or implementation of policies or programmes at national level in the last 5 years. Through a series of semi-structured questions, the aim will be to understand their current (and if relevant past) roles and responsibilities, assess their knowledge of climate change and adaptation and to what extent they consider this in their work. This task will also include workshops bringing together individuals from different spheres of government (central and local), donor agencies and CSOs. This would enable better understanding of interactions and coordination mechanisms (particularly on climate change) across government bodies and with donor organisations.
- iv. *Gap analysis*
An analysis on the extent to which climate change is currently embedded at various institutional levels will be carried out. Potential barriers and gaps will be prioritized to indicate the main areas where capacity building investments could potentially take place in Phase II of the PPCR.
- v. *Capacity needs assessment*
A needs assessment will be developed within the current legislative framework and taking into account government aims, goals, and budgets. This will bring together the findings from activities i to iv to identify the mandate, roles, responsibilities and capacity required to successfully mainstream climate change into GoTs policies and institutional structures., Information gathered from the various consultations held from October 2009 onwards will also be valuable in this assessment., This proposed and present situation will be compared to identify the areas where there are deficiencies in capacity at an institutional, technical and human resource level).

Section Four: Expected outputs and outcomes

This activity will provide the following outputs:

A report presenting the main findings of the institutional capacity analysis for climate change mainstreaming, and policy development in Tajikistan. The focus areas that the analysis will address are:

- 1) Situational analysis; presenting an evidence based section indicating the current position of Tajikistan with regard to institutional understanding and engagement with climate change.
- 2) Capacity needs assessment; a section presenting current technical, human and (to the extent possible) financial capacity and highlighting the main barriers to the mainstreaming of climate change in development policies and programmes. What are the main capacity development areas the research findings have indicated? What needs to be done to further integrate climate change into institutional structures in Tajikistan and to mainstream climate change at the national level.
- 3) Recommendations; the report will provide a succinct list of the most urgent and prioritised





(according to high-impact in the short term) capacity development needs for integrating climate change at an institutional level within government. This would also include a governance framework developed in close cooperation with the national government and local institutions on how the PPCR Phase I (and potentially Phase II) activities would be managed and operationalised in country. The GoT is already looking at possible committees, working groups etc that could include climate change in their remit of responsibilities, exploring options on where the PPCR will sit in this structure and presenting a viable option will be a key output of this activity.

Expected outcomes include:

- Improved understanding of the institutional and capacity needs to integrate climate change in development plans and policies in Tajikistan, any current barriers and gaps in institutional structures and technical / human resources
- Improved understanding of the adequacy of current arrangements to take on the activities that will emerge from the SPCR
- A road map (e.g. a prioritised action list and outline programme) for strengthening the ability of GoT to include the likely impacts of climate change into future national policies and programmes. Phase II activities might include: a series of targeted training courses within government (building on the activities for A3 in Phase I); support to ensure improved linkages between government line departments at national level and coherence on integrating climate change into national programmes; establishing a national level climate change coordinating unit.

Section Five: Consistency of the activity with national priorities

The GoT considers climate change to be of considerable importance and recognises its limited capacity in this area. This proposed activity is consistent with the needs identified in discussions with stakeholders and is aligned with the National Development Strategy, the National Environment Action Plan, the National Action Plan on Climate Change Mitigation and the Poverty Reduction Strategies.

Section Six: Coordination with other related initiatives

This activity will build on previous and on-going policy reviews, as well as capacity assessments relating to climate change and/or environment in Tajikistan. Examples include the “Report and Action Plan on Building National Capacity to Implement Commitments of the Republic of Tajikistan on Global Environmental Conventions¹²” and the Government of Tajikistan’s Development of State Administration for Hydrometeorology Programme (2007-2016). This activity will also draw on any recent or on-going work that includes an assessment of institutional structures, technical capacity (including equipment and infrastructure needs) and / or human resources. In this context it will particularly use as a reference point the Joint Country Partnership Strategy for Tajikistan.

This activity should aim to coordinate with other activities of the Phase I of the PPCR. In particular, it will be important to build strong links between this activity and the capacity building elements of proposed Tajikistan Climate Change Science and Impact Modelling Partnership (section 7.1.2).

Section Seven: Risks, Issues and Challenges

Potential risks include:

Adequately engaging and representing government views. This activity is aiming to identify institutional capacity needs in the country to enable them to successfully mainstream climate change at a national level. This can only be achieved by working closely with the GoT and fully involving them in the process. It is necessary that the research and recommendations of this activity do not try to circumvent the government rather they should aim to engage the GoT to the fullest extent. Engagement with local institutions is important for eventual success in mainstreaming, but this may be a new area for government which could pose challenges.

Ensuring that the needs assessment is undertaken against appropriate vision and definition of requirements to deliver effective climate resilience in Tajikistan. For the needs assessment to be effective in identifying the gaps that a programme of institutional capacity building could address, it will be necessary to clearly define (and agree) the context, processes, technical capacity, etc that would enable Tajikistan to effectively build climate resilience into strategies, policies and plans. This will be used as the comparator against the current structures, arrangements and capacity can be assessed.

Section Eight: Reference and background

This proposed activity will examine, as a minimum, the following strategies, plans and communications :

- *National Development Strategy (2005-2015)*
- *Poverty Reduction Strategy (2010-2012)*

¹² Available at http://www.undp.tj/index.php?option=com_content&task=view&id=188





- Sustainable Development Strategy (upto 2013)
- National Disaster Risk Management Strategy (2010)
- National Environment Action Plan (2006)
- Strategy for the Development of Small-Scale Hydropower of the Republic of Tajikistan (2007)
- Report and Action Plan on Building National Capacity to Implement Commitments of the Republic of Tajikistan on Global Environment Conventions (2005)¹³
- Ministry of Agriculture – last 5 year plan
- National Association of Dekhan Farms (NADF) Development Strategy (2008-2012)
- Government of Tajikistan’s Development of State Administration for Hydrometeorology Programme (2007-2016)
- Ministry of Water – last 5 year plan
- (2003); relevant sections, especially 7 and 9
- Legislation: 1994 Law on Nature Protection

Section Nine: Financial Statement

An initial estimate of cost is provided below

Component	Estimated staff days	PPCR support	Other support	Project total
Local Experts	5 man month	\$10,000		\$10,000
International Experts	5 man month	\$100,000		\$100,000
Training		\$10, 000		\$10, 000
Equipment				
Travel & subsistence		\$30,000		\$30,000
Miscellaneous				
Total		\$150,000		\$150,000

¹³ This assessment is good starting point but it is outdated. Significant changes have taken place in government structures since this PSA was compiled, making some sections irrelevant.





Activity A2	7.1.2 Tajikistan Climate Science and Impact Modelling Partnership
Government Contact	State Organisation for Hydrometeorology Institute under the Committee for Environment Protection
MDB contact	<i>The Asian Development Bank</i>
Objective of the proposed activity	To assess the capacity needs for downscaled climate modelling and sector-based impact assessment in Tajikistan; and develop modelling products to help Tajikistan begin to prioritise incremental adaptation investments.
Expected duration	<i>10 months</i>
Estimated Level of Funding	<i>\$375,000</i>
Section One: Justification and objectives	
<p>Justification & Objectives</p> <p>Tajikistan's scientific and hydromet institutions have very limited capacity to conduct basic climate forecasting and climate change impact assessments. The country is commended for making the most of limited data to produce (with UNDP support) a very credible Second National Communication to the UNFCCC, including use of PRECIS¹⁴ impact modelling. However, limited scientific knowledge and technical capacity in-country hinders the Government's ability to adequately understand the expected risks that climate change poses to critical infrastructure and vulnerable populations, and to national poverty reduction objectives.</p> <p>Current global circulation model impact projections have limited use value for Tajikistan because of coarse grid resolution. Key river basins, such as the Pyanj, Vakhsh, Amu Darya, or Sir Darya are vulnerable to glacial melt and extreme events. Snowpack and glaciers comprise the major source of water supply for all water-dependent sectors in Tajikistan. For example, over 90% of energy generation in Tajikistan is supplied by glacier-fed hydropower plants. Agricultural irrigation comprises the major consumptive use of water. Glacial melt is of critical importance to downstream riparian communities, and essential for the economies of neighbouring countries.</p> <p>In this context, there are major gaps in monitoring snowpack and glacial retreat. There is also deficiency in understanding the geomorphic stability of local glacial lakes, and sub-regional glacial dynamics. The inability to produce national climate impact scenarios and risk assessments severely compromises Tajikistan's capacity to adapt to and prepare for climate hazards.</p> <p>Internationally, there are many initiatives involving the development of climate impact modelling and mountain eco-system partnerships, including: ICRISAT¹⁵ and ICIMOD¹⁶ modelling efforts in high mountain fragile ecosystems in the Tibetan Plateau; development of high resolution dynamical downscaled impact projections modelling capacity for river basins, through the governments of Indonesia and Malaysia (with support from ADB and Team Japan's modelling network); the World Bank's Glacial Retreat and Adaptation project in the Andes region; and ADB's risk modelling and impact and adaptation initiatives in Nepal, and the Greater Mekong.</p> <p>This Phase I assessment of HydroMet (and other associated institutions) capacity, will: identify opportunities for institution strengthening and capacity building for climate science; and help formulate appropriate medium-resolution downscaled impact scenarios (statistical downscaling), and impact and adaptation knowledge products to assist in prioritizing PPCR resiliency investments.</p>	
Section Two: Objectives	

¹⁴ PRECIS - Providing REgional Climates for Impact Studies - is a regional climate modelling system developed at the Hadley Centre that can run on a PC and can be applied easily to any area of the globe to generate detailed climate change predictions

¹⁵ International Crops Research Institute for the Semi-Arid Tropics <http://www.icrisat.org/index.htm>

¹⁶ International Centre for Integrated Mountain Development <http://www.icimod.org/>





The main objectives of this activity are to:

- Assess the capability of the national HydroMet service and other institutions to carry out downscaled climate impact modelling.
- Formulate appropriate medium-resolution downscaled impact scenarios (statistical), and impact and adaptation knowledge products to begin to inform PPCR investments at the national, sub-regional, project, and community level.
- Assess additional capacity building needs for climate and impact projections in Tajikistan (including the option of a climate science facility).
- Facilitate collaboration and sharing of experience on climate change and adaptation from work in countries facing similar challenges.

Section Three: Description of methodology and possible tasks to be undertaken under the activity

A needs assessment will be conducted to: determine the current capacity of the HydroMet for down-scaled modelling; and determine the need for a national facility (in Phase II) to produce higher resolution dynamical downscaled hydromet climate impact projections. Phase I would see development of some statistical downscaling capacity; formulation of no-regrets strategies, in the absence of impact science; and impact model-based adaptation projections to begin to inform PPCR investments at the national, sub-regional, sector, project, and community level.

Because Phase II dynamical downscaling will take some time to produce, Phase I statistical downscaling outputs will complement interim no regrets adaptation measures. It should be noted that this activity complements proposals to improve Tajikistan's basic system for acquiring and managing weather and climate data.

Tasks

The primary task of this activity is to support the establishment, and activities, of a small group of climate change experts (primarily housed within the HydroMet) tasked to review options for climate science and modelling in Tajikistan, with the aim of developing statistical downscaled climate impact projections toward formulation of concrete adaptation measures. Phase II may see the development of dynamical downscaled impact modelling capacity.

A Climate Science and Impacts Working Group would assess the potential for climate change science in Tajikistan and develop a set of recommendations to government for a long-term plan to enhance the national capacity for promoting, develop and access climate change science, modelling and impact assessment.

The Working Group would comprise a small number of national and international climate change scientists (eg. Univ. California, Japan, Malaysia, Indonesia, UK), as well as national experts from government, ministries, and Tajik scientific organisations. This group would carry out a 3-week field visit to Tajikistan to meet with key stakeholders in country to assess the capacity of key organisations, followed by possibly two overseas site visits (eg. California, Japan) by designated HydroMet experts to review downscaled modelling facilities.

The Working Group would also identify potential partnerships with global centres of expertise, and coordinate the development of tailored products for climate projections in Tajikistan. Tailored products may include:

- Development of a set of medium resolution predictive impact scenarios in Tajikistan for different time slices (for example 2030, 2050 and 2100), to build on existing PRECIS (Potsdam Institute) model results.
- Rapid assessment of climate impacts on the hydrology of target river basins, such as such as the Pianj/ Amy Darya, Vajsh, or Syr Darya; and preliminary assessment of possible risks to priority sectors, including irrigation and hydro infrastructure, vulnerable ecosystems, agriculture and food security, health/gender, and other critical infrastructure;
- Development of a preliminary vulnerability map, and medium-resolution downscaled impact modelling data to provide Tajik HydroMet, academia and other end-users, with more reliable sector-based data for adaptation planning.
- Preliminary recommendations on potential adaptation responses and risk management strategies to increase the resilience of vulnerable sectors, communities and ecosystems.

The Climate Science & Impacts Working Group would also facilitate collaboration and sharing of experience on climate change and adaptation from work in countries facing similar challenges. This may include a Climate Science and Impacts conference for high mountain countries (including Tajikistan, Kyrgyzstan, Pakistan, Nepal, Bhutan, Bolivia) to share experience on climate impact and adaptation knowledge and practices.

Building on the findings of these tasks, the Working Group would make recommendations on, and design a plan to increase Tajikistan's capacity for climate projections and impact assessment in the short- and long-term.





Specific Tasks

1. Institutional assessment of HydroMet capacity (and other associated institutions), toward development of increased institutional capacity to develop high-resolution downscaled climate impact scenarios (statistical and dynamical downscaling). Determine meteorological, climatological and geophysical downscaled modelling computing capacity.
2. Conduct a capacity need assessment to determine requisite sector-based climate science.
3. Identify existing and deficient hydromet historical data sets to inform statistical downscaled impact modelling.
4. Needs assessment of Hydromet training requirements, and formulation of an impact modelling training module for statistical downscaling, data interpretation, and development of adaptation responses.
5. Recommendations for improvement of hydromet database and data collection and management, and standardization of data collection, and review of necessary model systems interfacing between national and international agencies.
6. Formulation of alternative no regrets adaptation strategies, and risk management knowledge products in absence of impact models.
7. Development of interim medium-resolution predictive hydro-climate model simulations and climate impact assessments (combined historical & statistical downscaled data), using international experts.
8. Preliminary assessment of the need for glacial inventory, glacier baselining, and monitoring of downstream hydrological cycles, glacial massifs, primary watersheds, water coursing, and water resource availability.
9. Preliminary assessment of need for hydrometeorological and hydrological stations to support forecasting capability, and disaster preparedness
10. Conduct a rapid risk assessment (toward development of a Phase II), including GIS-based inter-sectoral vulnerability and hazard map (climate and disaster) to identify high-risk sectors (water, energy, agriculture) and river basins, destabilized or vulnerable upstream and downstream mountain eco-systems, high-risk critical infrastructure investment projects, and vulnerable riverine communities for PPCR prioritization. Data on social dimensions will also be incorporated.
11. Analysis to determine Hydromet transition from Phase I statistical to Phase II dynamical downscaled modelling capacity; and to disseminate science and model products to other government Line Ministries and institutions (i.e., Committee of Emergency Situations, Ministry of Water Resources Management), local authorities, and civil society agencies, and for replication in other Central West Asia countries. Actual risk management actions would be financed under Phase II.
12. Conduct (i) on-the-job training of key Hydromet staff on development of preliminary hydro-climate impact models, and training module; and, (ii) regional seminar for key staff in neighboring countries to build hydro-climate impact modelling capacity
13. Needs assessment of modelling requirements for Third National Communication, and determine timing.
14. Provide recommendations to the government and international financial institutions on how this capacity could be enhanced in a cost effective manner.

Section Four: Expected outputs and outcomes

Expected Outcomes include:

- Enhanced country capacity to develop medium resolution (statistical) downscaled impact projection models, to support the formulation of sector-based national adaptation policy and strategies based on more trend reliable climate impact science.
- Capacity building for the development/collection of climate science, and creation of useful impact and adaptation knowledge products to assist in prioritizing PPCR resiliency investments.
- Better understanding of climate science and impacts in Tajikistan, and implications for Tajikistan's economic development.
- Enhanced scientific evidence base for national policy making.





Outputs of this activity could include:

- Preliminary assessment of hydromet historical data, Hydromet training requirements, and resilience measures needed in sector-based national and sub-regional investment priorities, based on downscaled impact modelling.
- Consultations and international exchanges between national (Tajik Hydromet and government departments) and international experts and organisations (University of California, Japan, Malaysia, Andes).
- Predictive impact model capacity, and risk management knowledge products for Tajikistan, addressing vulnerability and risk in priority sectors.
- Exchange of lessons learned with countries facing similar challenges.
- Recommendations for improvement of hydromet database and data collection and management, and standardization of data collection, and review of necessary model systems interfacing between national and international agencies.
- Alternative no regrets adaptation strategies, and risk management knowledge products in the absence of impact models.
- Medium-resolution interim predictive hydro-climate model simulations and climate impact assessments (combined historical & statistical downscaled data).
- Preliminary assessment of the need for glacial inventory, glacier baselining, and monitoring of downstream hydrological cycles, glacial massifs, primary watersheds, water coursing, and water resource availability.
- Preliminary assessment of need for hydrometeorological and hydrological stations to support forecasting capability, and disaster preparedness.
- Rapid risk assessment (toward Phase II), including development of a GIS-based inter-sectoral vulnerability and hazard map (climate and disaster) to identify high-risk sectors (water, energy, agriculture) and river basins, destabilized or vulnerable upstream and downstream mountain eco-systems, high-risk critical infrastructure investment projects, and vulnerable riverine communities for PPCR prioritization. Data on social dimensions will also be incorporated.
- Analysis to determine Hydromet transition from Phase I statistical to Phase II dynamical downscaled modeling; and to disseminate science and model products to other government Line Ministries and institutions (i.e., Committee of Emergency Situations, Ministry of Water Resources Management), local authorities, and civil society agencies, and for replication in other Central West Asia countries. Actual risk management actions would be financed under Phase II.
- Identification of possible mountain eco-system partnerships.
- Needs assessment of modeling requirements for Third National Communication, and determine timing.
- Recommendations to government and international financial institutions on how this capacity could be enhanced in a cost effective manner.

Section Five: Consistency of the activity with national priorities

This activity is consistent with the *National Development Strategy of The Republic of Tajikistan for the Period to 2015*, which identifies the need to enhance the country's technical and institutional capacity for scientific research and information. It is also aligned with priorities highlighted during the Joint Programming Mission consultations, and in subsequent discussions by a number of stakeholders, including government departments, ministries and the Tajik Hydromet.

Section Six: Coordination with other related initiatives

This initiative would be build upon current initiatives by the Asian Development Banks, aimed at modelling climate change impacts on river basins, and managing water resources in Central Asia within a climate change framework. For example, ADB is currently developing downscaled modelling capacity in both Malaysia (NAHRIM), and in Indonesia (Citarum 3km grid resolution downscaled computer realizations and hydroclimate impact scenarios for river basins with University of California and Team Japan modelling group¹⁷). ADB is also assisting with the development of downscaled impact modelling for Nepal, and has recently completed impact modelling work in the Greater Mekong.

This activity will review the Committee of Emergency Situations, and Ministry of Water Resources Management studies on hazard impacts. It will also build on the findings of the GFDRR/World Bank 2009 report: Improving Weather, Climate and Hydrological Services Delivery in the Republic of Tajikistan.

This activity is likely to provide ancillary benefits for other PPCR pilot countries facing similar challenges to Tajikistan regarding climate risks at the level of river basins, and institutional needs for resiliency measures. There will be an opportunity for other PPCR pilot countries to share lessons learned.

¹⁷ Comprised of University of Tokyo; Earth Simulation Centre; JICA; Ministry of Land, Infrastructure, Transport & Tourism; Tokyo Institute of Technology; University of Kyoto; Kanazawa University; ICHARM; Met Research Institute; Public Works Research





Section Seven: Risks, Issues and Challenges

Potential risks include:

- *Unsatisfactory implementation of the project.* This is a complex activity that will have to produce results under significant time constraints to inform other analytical work in Phase 1, and underpin investment priorities under Phase 2. Careful selection of the project team and the working group, together with the integration of the activity with undergoing relevant work, will mitigate this risk.
- *Loss of stakeholders support.* The scope of work of the Science & Impacts Group will need to be clearly communicated to manage stakeholder expectations. Consultations with key stakeholders, and involvement of key national and sub-regional actors will mitigate this risk.
- *Limited robustness of climate data.* Possible risks for the proposed project activity are associated with the robustness and completeness of the data required for statistical downscaling, and use value of medium resolution statistical downscaling projections to assess vulnerability in priority sectors. The project team will need to establish good relationships with relevant institutions and ministries, and coordinate with them to collect the necessary data.

Section Eight: Reference and background

- ADB downscaled modelling projects in Malaysia (NAHRIM) & Indonesia (Citarum 3km grid resolution downscaled computer realizations and hydroclimate impact scenarios for river basins with University of California and Team Japan modelling group).
- ADB development of downscaled impact modelling for Nepal, and impact modelling work in the Greater Mekong.
- ADB work with ICIMOD (Pakistan) re Indus river basin and glacial melt, & ICRISAT work in Nepal.
- Improved Capacity for Climate Change Projection in the Syr Darya River Basin - Kazakhstan, Kyrgyz Republic, Tajikistan and Uzbekistan (ADB), planned.
- Improving Weather, Climate and Hydrological Services Delivery in the Republic of Tajikistan (World Bank), 2009.
- **Remote Geo-Hazards Capacity Building and Monitoring Project (DFID/SDC), ongoing.**

Section Nine: Financial Statement

An initial estimate of the potential cost of the activity is provided below

Component	Estimated staff days	PPCR support (\$)	Other support (\$)	Project total
Local Experts	20 Person months	\$40,000		
International Experts	10 Person months	\$200,000		
Equipment		\$20,000		
Travel & subsistence		\$60,000		
Events		\$10,000		
Miscellaneous		\$20,000		
Total		\$350,000		

Institute; National Institute for Land & Infrastructure Management); (iii) California Hydrologic Research Laboratory (CHRL) - University of California, and possibly the National Hydraulic Research Institute of Malaysia (NAHRIM) Water Hub.





Activity A3	7.1.3 Raising awareness of climate change in the Government of Tajikistan
Government contact	<i>Executive Office of the President and Tajik Hydromet</i>
MDB Contact	<i>The World Bank</i>
Objective of the proposed activity	To raise awareness and build capacity for informed climate change action of government and other stakeholders
Expected duration	12 months
Estimated Level of Funding	\$100,000
Section One: Justification	
<p>Climate change and the risks and challenges it poses are relatively new and unfamiliar issues for the government and people of Tajikistan. The Joint PPCR Programming Mission (12 – 22nd Oct 09) and subsequent stakeholder consultations identified an urgent need to raise awareness of the likely climate change impacts among people in Tajikistan. While a rudimentary understanding of the risks associated with climate change is prevalent its implications for different communities, different sectors of the economy, ecosystems and development on the whole, is low in government, general public and civil society alike. Participants at the consultations noted that activities aimed at raising awareness should target a wide range of actors.</p> <p>It is crucial to involve high-level policymakers to ensure integration of climate change risks into national development policies. Inadequate climate change awareness in government hinders the integration of climate change risks into development plans and the ability of the GoT to devise adequate adaptation responses. Increasing the level of understanding among government - of the threats emerging from climate change and the urgency of the issue - will contribute to removing one of the key barriers to increase Tajikistan's resilience and also ensure country ownership and sustainability of PPCR activities.</p> <p>Awareness on climate change risks and the need for adaptation should also be raised among local government, key sectors of the economy and mass media, for example by using current events, such as extreme weather and health crises, as a basis to promote adaptation measures with co-benefits. Besides awareness-raising at central and local government level, improving public awareness makes climate change science accessible to the average citizen and can increase the climate resilience of particularly vulnerable groups, such as the rural poor, women, children and the chronically ill.</p> <p>Priority target groups for the PPCR Phase 1 were identified in government departments and ministries, local government (at the oblast, rayon or jamoat levels) and possibly higher education institutions. Wider target groups, including rural communities, vulnerable groups, industry and businesses, civil society and the media could be considered in activities aimed at raising awareness in Phase 2.</p> <p>It is important to recognise that the effort aimed at increasing awareness on climate change in Tajikistan must be sustained during, and possibly beyond the duration of, the PPCR. For this reason, activities proposed in Phase 1 should set stage for continuing work on awareness raising and capacity building in Phase 2. The establishment of a 'mechanism' for gathering and disseminating information on climate change risks and adaptation measures could be informed by the activity A1 (Strengthening the institutional arrangements of Tajikistan) and A2 (Tajikistan Climate Science and Impact Modelling Partnership). This 'mechanism' for example could be a Climate Change Information Centre or Network housed in an existing institution and could be considered for investments under Phase 2 of the PPCR. This 'mechanism' would require targeted training of a small group of experts during Phase 1, who would then drive forward activities aimed at raising awareness and disseminating climate change information in the long-term.</p> <p>It is also important to recognise the language needs of Tajikistan. The tools and material available to experts on adaptation planning and implementation is mainly in English. For Tajikistan's experts to fully participate in the adaptation process, the availability and accessibility of climate change information in Russian and possibly Tajik language need to be enhanced as part of the capacity building activities proposed in both Phase 1 and Phase 2.</p>	
Section Two: Objectives of the activity	





The objective of the activity A3 is to conduct an initial awareness raising campaign aimed at building capacity on climate change impacts, vulnerability and adaptation approaches (including those already practiced at the local level). The priority target audiences for this activity have been identified in government departments and ministries, local government and local communities. This activity will also focus on building the capacity of a small group of Tajik experts with the view of preparing the grounds for a sustained country effort for raising awareness in Phase 2.

The activity would focus on the international climate change framework and the UNFCCC, climate change scenarios in Tajikistan and expected impacts on key sectors, including food security, agriculture, energy security, disaster risk management and health, as well as methods to develop adaptation responses. Reference to best practise around the world will be made to assimilate lessons learnt elsewhere. Different modules will be devised to serve the information needs of different target groups (including those communities at highest risk). A national conference on climate change risks and potential adaptation responses in Tajikistan will also be organised in collaboration with the project team of activities A2 (Tajikistan Climate Science and Impact Modelling Partnership). Since poverty and sensitivity to climate-related hazards are increasingly concentrated in particular regions, one or more workshops in these locales will be held during Phase 1.

It is anticipated that this initial awareness raising campaign will be followed by more extensive awareness raising activities targeting a wider audience and including the most vulnerable groups, rural communities, schools, industry and business, civil society, the media, and the public.

Section Three: Description of the methodology and possible tasks to be undertaken under the activity

Activity A3 will be conducted by international and national experts working in close collaboration with existing institutions in Tajikistan. Opportunities for collaboration with NGOs and other organizations conducting activities to raise awareness will be explored.

Activity A3 will comprise:

- A training programme for a small number of Tajik experts with the aim of 'training the potential trainers' for a sustained effort for raising awareness and disseminating information, which could be supported in Phase 2. A 'learning by doing' approach will be adopted to train the experts, who will be actively involved in the Phase 1 awareness raising activities.
- A small awareness raising programme of seminars and workshops for the target audiences, which could include the following modules:
 - Climate change science: projected global and regional climate change and variability;
 - Impacts of climate change on key sectors, including water resources, glaciers,
 - Linkages between poverty, economic development and climate change: provide concrete case studies and examples
 - Best practice of climate change mainstreaming (including local practices already employed in Tajikistan)
 - Potential future risks associated with climate change at the national and local/community levels
 - The international climate change framework and linkages to the national policy making process.The contents and the number of awareness raising activities will be devised to satisfy the different information needs of the target groups. The information will be disseminated in English, Russian and Tajik.
- A national conference on climate change risks and potential adaptation responses in Tajikistan. This conference will bring together the findings of the analytical work carried out under the PPCR Phase 1 Technical Assistance and will mark the transition to Phase 2.

Section Four: Expected outputs and outcomes



Expected outputs may include:

- Seminars for national policy makers on the international climate change regime and different aspects of climate change impacts, vulnerability and adaptation;
- Workshops on the impacts of climate change on and adaptation responses for key sectors and line ministries, including energy, agriculture, food security, health and disaster risk management;
- Seminars for local policy makers on climate change in Tajikistan, likely impacts and risks, and potential adaptation responses at the local level, with particular focus on the needs of rural and urban communities;
- Seminars for academics and young scientists on the current status of knowledge of climate change science, impacts and adaptation.
- A small number of trained Tajik experts able to carry out awareness raising activities.

Expected outcomes include:

- Better understanding of Tajikistan’s vulnerability to the impacts of climate change;
- Enhanced capacity to integrate climate change risks in national development plans and local policies;
- Enhanced capacity of Tajik experts to carry out activities aimed at raising awareness and disseminating information on climate change;
- Enhanced country ownership and sustainability of PPCR activities

Section Five: Consistency of the activity with national priorities

This activity of the Phase 1 Technical Assistance is consistent with the priorities set out in National Development Strategy, the National Action Plan on Climate Change Mitigation, the State Programme on Environmental Education and Awareness and the National Strategy on Poverty Reduction (2010-2012).

Section Six: Coordination with other related initiatives

This activity will coordinate closely with other activities of the Phase 1 Technical Assistance, in particular activities aimed at assessing the vulnerability of the energy and agriculture sectors.
This activity will also build upon other initiatives in the country, including the Remote Geo-Hazards Monitoring and Capacity Building project run by FOCUS and a the WHO project on climate change and health.

Section Seven: Risks, Issues and Challenges

Potential risks include:

- *Lack of interest amongst key government stakeholders.* The lack of information in local language and the conflicting international news reports/articles about climate change may result in a low interest amongst stakeholders and a loss of support. The project team will work closely with the key government departments and ministries to ensure that awareness raising activities are carefully tailored (e.g. in terms of audience need, format / delivery mechanism, language and content) and maintain government backing for these activities.
- If local workshops are not planned appropriately, there could be a risk that planners inadvertently support “maladaptation”, that is unable to effectively support sustainable climate resilience due to a lack of local ownership and awareness of local implementation capacity and effectiveness.

Section Eight: Reference and background

- National Development Strategy up to -2015);
- Poverty Reduction Strategy (2010-2012);
- Sustainable Development Strategy;
- National Disaster Risk Management Strategy;
- National Environment Action Plan;
- Strategy for the Development of Small-Scale Hydropower of the Republic of Tajikistan (2007);
- Report and Action Plan on Building National Capacity to Implement Commitments of the Republic of Tajikistan on Global Environment Conventions.

Section Nine: Financial Statement

An initial estimate of the potential cost of the activity is provided below

Component	Estimated staff input	PPCR support (\$)	Other support (\$)	Project total
Local Experts	6 man months	\$12,000		\$12,000
International Experts	3 man months	\$60,000		\$60,000
Information material		\$4,000		\$4,000
Travel		\$12,000		\$12,000
Events		\$8,000		\$8,000
Miscellaneous		\$4,000		\$4,000
Total		\$100,000		\$100,000





7.2 Sectoral Themes

Activity A4	7.2.1 Enhancing the Climate Resilience of Tajikistan’s Energy Sector
Government Contact	<i>Ministry of Energy and Industry</i>
MDB contact	The European Bank for Reconstruction and Development
Objective of the proposed activity	To assess the climate vulnerability of Tajikistan’s energy sector (with a focus on hydropower) and provide recommendations for improving Tajikistan’s energy security
Expected duration	<i>6 months</i>
Estimated Level of Funding	<i>\$300,000</i>
Section One: Justification	
<p>Tajikistan’s energy sector is dominated by hydropower, which provides around 98% of the country’s electricity. Tajikistan is endowed with abundant hydropower resources. Despite its small territory, the country boasts the 8th largest hydropower potential in the world following China, Russia, the United States, Brazil, Zaire, India and Canada. There are approximately 950 rivers, with a total length of 28,500 km. The total number of lakes exceeds 1300, most of which are situated 3000 m above sea level. The hydropower potential is estimated at around 40,000 MW (with an energy potential of 527 billion kWh per year). Hydropower provides 98% of Tajikistan’s energy needs and is the country’s main export. However, only 10% of this vast potential is exploited, representing approximately 15 billion kWh for a year.</p> <p><i>Tajikistan’s energy sector is understood to be extremely sensitive to climate change.</i> As approximately 98% of the country’s electricity is produced from hydropower sources in river basins fed by glacial meltwater and snowmelt, the energy sector is highly dependent on hydrology and therefore is greatly exposed to climate risk. Most climate models predict significant changes in the dynamics of Tajik glaciers, snowmelt and precipitation as the climate warms in the coming decades. Significant increases in the next few decades from enhanced glacial melting and melting of accumulated snow are expected to be followed by drastic reductions in supplies as the mass of glacial ice and accumulated snow shrinks, although there is some uncertainty about the timing of these changes. In 2007 and 2008, the Tajik hydropower system faced major shortfalls in winter generation due to poor hydrology. Climate change could compound the severe challenges already facing the energy sector. The use of other energy sources, including renewable energy such as solar and wind as well as thermal power, remains underdeveloped due to the overwhelming dependency on hydropower. This contributes to the climate vulnerability of the energy sector overall.</p> <p>Despite its vast hydropower potential, the country is still a net importer of electricity as a consequence of years of underinvestment, both in new generation capacity and rehabilitation of existing capacity. In recent years, the average net import has been estimated at 800 GWh per annum. All existing power plants in Tajikistan were designed in the 1950s, including the Vakhsh cascade, one of the largest cascades of power plants with a total capacity of over 4.5 GW. However, they were designed without consideration of the optimisation of water management under projected future climate scenarios and of concerns over the adequacy of spillways and the optimisation of storage capacity. As the Tajik glaciers and the operation of hydropower plants have a major influence on downstream riparian users needs for water, negative changes in regimes due to climate change could exacerbate political tension among neighbouring countries.</p> <p>Investment in the country’s energy sector is urgently needed to meet these challenges. This investment is needed in a number of areas. The rehabilitation of critical hydropower generation facilities is urgently needed in order to maintain Tajikistan’s capacity to meet its current and future energy needs. Investment in new small and medium hydropower facilities is also needed in order to ensure better energy security for rural and remote communities. The government is also promoting the development of very large greenfield hydropower facilities which could also help relieve regional energy shortfalls. In the longer-term, it will be important to improve the enabling environment for private investment (especially in small and medium hydropower facilities) to complement limited public resources. However, there is a danger that these investments may be made in the absence of an understanding of how hydropower facilities may be affected by climate change over the coming decades. There is a clear need to develop approaches to optimising the climate resilience of all of these types of investments. However, as the investment needs are great and the currently available resources are limited, it will be important to prioritise and sequence these investments, and associated efforts to build in climate resilience, so that the most urgent needs and the most viable opportunities are addressed first.</p>	





The gender- energy- poverty nexus is widely acknowledged in developing countries and in the context of Tajikistan, it holds particularly true. In a country where a large proportion of the working male population is working as migrant workers abroad, it is women who are most often directly impacted by poor access to energy resources and need to spend time gathering fuel for their households. An improvement in the energy production and supply in Tajikistan would not simply empower women but also allow them to be agents of positive change. Given the significance of the energy sector to Tajikistan's economy and overall development, and its extreme vulnerability to climate change, the PPCR should be seized as an opportunity to identify ways of promoting its climate resilience. This activity of the PPCR Phase 1 Technical Assistance sets out to analyse the climate vulnerability of Tajikistan's energy sector and to make recommendations for how PPCR resources could be used in Phase II to promote a more climate-resilient energy sector. This work will inform the development and implementation of the Strategic Programme for Climate Resilience (SPCR).

Section Two: Objectives of activity

The objective of this activity is to carry out analytical work and produce a report that, inter alia:

- Describes climate change scenarios for Tajikistan and their implications for power generation for different time slices up to 2100, building on, where possible and where timing allows, the climate change scenario work to be carried out under the Tajikistan Climate Science and Impact Modelling Partnership (section 7.1.2);
- Assesses the availability of observed hydrological and other data in Tajikistan at the river basin level and, using these data, identifies river systems on which the hydrological modelling of climate change impacts can feasibly be conducted;
- Identifies existing or proposed new hydropower facilities located on river systems that have adequate observed data for hydrological modelling that appear to be more attractive for public or private investment in the near- to medium-term;
- Presents the results of hydrological modelling of climate change impacts on river catchments that contain the identified hydropower facilities; subject to the availability of adequate observed hydrological data;
- Project how model results could influence the hydrograph of river inflows and, to the extent possible, engineering features such as reservoir levels and capacities and spillway designs with consequent impacts on power production. This will look at annual average production and firm hydropower generation under projected changes in average and extreme conditions;
- Provides recommendations on how the investments in these facilities should be developed taking account of their design, condition and the way in which they are operated;
- Outlines the climate vulnerability/resilience of other types of power generation (i.e. non-hydro) such as solar, wind, thermal etc;
- Presents recommendations on further analytical or capacity building work that will need to be carried out during Phase II of the PPCR in order to further improve the climate resilience of the energy sector, including complementing the outcomes of Phase I activity A2 (Tajikistan Climate Science and Impact Modelling Partnership, section 7.1.2) and informing the design of any successor activities in Phase II;
- Presents these findings and recommendations in a format that can be used to inform the development and implementation of the Strategic Programme for Climate Resilience (SPCR).

Section Three: Description of the methodology and possible tasks to be undertaken under the activity

This activity will be carried out through a combination of field visits, modelling, literature reviews and consultations with a wide range of stakeholders, including Tajik and international experts, managers/staff at power generation facilities, government officials, academics, private companies, IFIs, donors and other international agencies. Where appropriate, teams of consultants working on hydropower and other power sector activities for MDBs and other agencies will be consulted, making use of the outputs of such work wherever possible so as to avoid duplication, and overlaying climate change analysis onto its findings. This activity will also be carried out in close coordination with the Tajikistan Climate Science and Impact Modelling Partnership that is being carried out under the PPCR Phase I. Specific tasks may include, but not be limited to, the following:

- a) A review of climate change scenarios for Tajikistan and analysis of the implications for power generation and power demand;
- b) An assessment of the availability of observed hydrological and other data in Tajikistan at the river basin level that can be used to identify river systems on which it will be feasible to conduct hydrological modelling of climate change impacts;
- c) The identification of existing or proposed new hydropower facilities located on river systems with adequate observed data for hydrological modelling that appear to be attractive for public or private investment, to be conducted in consultation with the GoT and MDBs;
- d) The development of models that use climate change scenarios to indicate how climate change may impact on river catchments where eligible hydropower facilities are located, and on their reservoirs and power production (subject to the availability of adequate data);





- e) Overlaying climate change scenario data and the above modelling data onto the outputs of ongoing work being carried out to prepare for investments in hydropower facilities, which may include, but not be limited to, integrating climate change and hydrological forecasts into:
 - Reviews of meteorological, hydrological, biological, geographical, socio-economic geophysical and operational data;
 - Cost benefit analyses of the eligible hydropower facilities, which could also include possible social impacts of different energy restructuring scenarios to ensure equitable “no regrets” options.
- f) Identifying climate-related risks to the achievement of hydropower development and energy security targets, and setting out how any such risks could be managed;
- g) Assessing the eligible hydropower facilities in terms of their expected resilience to climate change, taking into account their location and design;
- h) In consultation with the GoT and the PPCR partners, identifying priority actions to be carried out during Phase II of the PPCR, which may include, but not be limited to:
 - Setting out how Phase II resources could be used to support investments in hydropower facilities in order to optimise climate resilience and provide a ‘best practice’ transformational model that could be replicated elsewhere in Tajikistan and in other countries;
 - Recommendations on further analytical, monitoring or capacity building work that will need to be carried out during Phase II of the PPCR in order to further improve the climate resilience of the energy sector, which may include follow-on activities from Phase I activity A2 (Tajikistan Climate Science and Impact Modelling Partnership);
 - Providing training/capacity building on climate change impacts on hydropower facilities and climate resilience, for GoT staff;
 - Setting out options for piloting and/or expanding the use of non-hydro power sources, in cases in which this could contribute towards improved climate resilience.

Section Four: Expected outputs and outcomes

Expected deliverables could include:

- a) A report of no more than 25 pages (including an executive summary, but excluding annexes) reflecting the results of the above activities;
- b) Recommendations for the Government of Tajikistan on how the climate resilience of the energy sector can be increased and climate risk management can be integrated into national energy plans and policies;
- c) Recommendations for PPCR Phase II that can be used to inform the development and implementation of the SPCR, included as an Annex to the above report;
- d) A Powerpoint presentation highlighting the main findings and recommendations.

Expected outcomes could include:

- Better understanding of the risks posed by climate change to Tajikistan’s energy security;
- Improved capability for integrating climate change risk management into national energy plans and policies;
- Enhanced knowledge base to inform potential actions on the energy sector in Phase 2

Section Five: Consistency of the activity with national priorities

This activity of the Phase 1 Technical Assistance is aligned with the priorities set out in the Action Plan for Climate Change Adaptation which forms part of Tajikistan’s *National Environmental Action Plan (NEAP)*, which was approved by the Government in 2006. One of the key objectives of the NEAP with respect to climate change is “*promote development of the science and engineering expertise needed for developing methods of coping with environmental, economic, and health effects of climate change*”. Priority actions in this Action Plan include the development of capabilities to assess the environmental and economic risks of climate change, and the gradual implementation of a program to install more efficient electricity generation equipment at the nation’s several hydropower dams. The *Second National Communication of the Republic of Tajikistan under the United Nations Framework Convention on Climate Change (2008)* also emphasises the need to rehabilitate hydropower generation facilities in order to realise Tajikistan’s considerable potential. The *Water Sector Development Strategy in Tajikistan*, approved by the Government in 2006, also identifies as priorities the modernization, reconstruction, and maintenance of operational hydropower plants and power facilities, and the further development of hydropower in order to both enhance the energy sector as well as environmental protection and the water resource management.

Section Six: Coordination with other related initiatives





The IFIs operating in the country have been very active in the energy sector and a number of relevant activities are currently underway. This activity of the Phase 1 Technical Assistance will build on those initiatives, including:

- Nurek 500kV Switchyard Reconstruction Project (ADB)
- Regional Power Transmission Interconnection Project – Afghanistan/Tajikistan (ADB)
- Preparing Small-Scale Hydropower Projects for Private Sector Participation (EBRD)
- Road Map for Climate Adaptation in the Amu Darya Basin (WB)
- Promotion of Renewable and Sustainable Energy use for Development of Rural Communities in Tajikistan (UNDP)

Section Seven: Risks, Issues and Challenges

Potential risks include:

- *Institutional barriers.* There is a risk that results of supported assessments might not be translated into concrete policies and actions because of lack of institutional support and dissemination of results. Strong coordination and involvement of concerned institutions right from the beginning is essential to ensure adequate assessments, access to data and integration of the results into sector planning.
- *Limited robustness of observed and future climate data, hydrological data and models of river systems and power generation capacity, and limited availability of data or models that cover extreme events:* Possible risks for the proposed project activity are associated with the robustness, completeness and availability of the necessary data. The project team will need to establish good relationships with relevant institutions and ministries, and coordinate with them to collect the necessary data. It will also be important to analyse a wide range of possible climate futures to cover the uncertainties in, for instance, rates of glacial melt and snow melt, until the results of the Tajikistan Climate Science and Impact Modelling Partnership are available.
- *Some stakeholder expectations that this analysis will support solar and wind development. While the vulnerability of these potential energy sources will be examined in a general way, the work is not an energy supply analysis but directed at the vulnerability of the major energy sub-sector.*

Section Nine: Financial Statement

An initial estimate of the potential cost of the activity is provided below

Component	Estimated staff input	PPCR support (\$)	Other support (\$)	Project total
Local Experts	18 man months	36,000		36,000
International Experts	11 man months	220,000		220,000
Equipment		6,000		6,000
Travel		20,000		20,000
Events		7,000		7,000
Miscellaneous		11,000		11,000
Total		\$300,000		\$300,000





Activity A5	7.2.2 Analysis of sustainable land management approaches for changing climatic conditions in Tajikistan
Government Contact	Ministry of Agriculture and Ministry of Forestry
MDB Contact	The World Bank
Objective of the proposed activity	An inventory and analysis of sustainable land management activities and associated land policy issues to identify investment projects and policy support programme for PPCR Phase 2
Expected duration	5 months
Estimated Level of Funding	\$200,000
Section One: Justification	
<p>Tajikistan's semi-arid, mainly mountainous production landscapes are characterized by varying degrees of degradation with detrimental impacts on important economic sectors and ecosystem processes. Rural livelihoods that support the majority of the population are being negatively affected by degradation of arable land (loss of soil fertility, salinization, and water-logging); degradation of pastures and rangeland (from overgrazing and excessive harvesting); degradation of forests (due to illegal logging, fires, and excessive grazing); and erosion, (from landslides, mudflows and wind storms) onto productive land.</p> <p>In Tajikistan climate change over the coming decades is expected to produce higher air and surface temperatures, reduced rainfall and increased frequency of extreme events such as floods, droughts and storms. Climate change and variability can contribute to land degradation by exposing unprotected soil to more extreme conditions and straining the capacity of existing land management practices to maintain resource quality. At the same time, land degradation can increase the vulnerability of agricultural production and rural people to extreme weather events and climate change, as the fertility and buffering capacities of the land and livelihood assets are depleted. With the existing land degradation impacts noted above, sustainable land management (SLM) strategies and practices become even more critical for Tajikistan. SLM can enable farmers and communities to adapt, as well as become more resilient, to climate change by conserving soil and water, restoring productive natural resources, enhancing food security and increasing food production.</p> <p>Since the late 1990s there have been several initiatives addressing aspects of land degradation and promoting sustainable management of land resources. These initiatives cover a number of sectors and geographical regions of the country. Activities have included an integrated development strategy for the Pamir (CDE), agriculture and sustainable land management projects (FAO, WB, UNDP and others), and combating desertification (GTZ) among others. Given the range and scope of the initiatives and the absence to date of any review, the Joint PPCR Programming Mission considers that compiling an inventory and conducting a review of such initiatives are timely. As outlined above, climate change only increases the need for effective approaches to sustainable land management. From previous and existing efforts there are useful lessons to be shared at the country level among practitioners and the donor community, as well as concepts and practices that can assist rural communities respond to climate change. In a series of meetings (including PPCR consultations) held in 2009 and 2010 on land management and related activities, participants, including practitioners and donors, have expressed the need for building knowledge and raising awareness about sustainable land management. These stakeholders have also expressed interest in a review and dissemination of experience to date.</p> <p>Current policies governing land management constrain moves towards more sustainable practices. A legacy of the Soviet period is that all land is owned by the state. Without long-term rights to land, farmers and communities have no incentive to invest in actions and technologies that sustain land resource quality, as it make more sense to 'mine' the resource base for immediate returns. This issue is further complicated by the joint pressures of poverty and population growth which also contribute to both under investment in, and short-term extraction of, land resources. In Tajikistan the feminisation of poverty is a serious concern and female-headed households control lesser resources to practise sustainable management of land, making SLM a critical issue in tackling gender inequality and disempowerment.</p> <p>An inventory and review will provide a context and a baseline for the PPCR, and signal a change from business-as-usual sector specific approaches and raise awareness of the critical role of sustainable land management in strategies for climate resilience. Future land management investments can also learn from and build on the richness of findings based on local experiences when designing related interventions.</p> <p>In addition, the policy environment needs to provide the correct incentives for investments in more sustainable land management approaches and technologies. There is an on-going process of Land Reform and review of land development policies. This process is as important to the adoption of climate resilient land management practices as technical improvements. The two need to go hand in hand. The Phase 1 analysis will provide recommendations for the balance between investment in improved technologies and support to policy processes for Phase 2.</p>	





Section Two: Objectives of activity

The primary objectives of this activity are to:

- a) compile an inventory of relevant past and on-going programs and approaches to sustainable land management in Tajikistan;
- b) analyze and share lessons learned and good practices from these initiatives in the context of adapting to climate change;
- c) understand the process and pace of land reform and other land development policy changes; and
- d) build on all the above to make recommendations for Phase 2 that identify:
 - o investments in projects that will promote climate resilient land management technologies;
 - o support for relevant policy processes; and

the balance of PPCR resources allocated to each of these two broad areas of work.

Section Three: Description of the methodology and possible tasks to be undertaken under the activity

This proposed activity will be carried out using a combination of literature reviews, field visits and consultations with villagers, researchers, staff of projects working on sustainable land management and related agricultural and rural development issues, and staff of relevant government line ministries (at national and local level). Specific tasks include:

- a) Preparation of an overview based on available literature on the current environmental status of arable land, rangeland and riverine forest in Tajikistan;
- b) Preparation of an overview based on available data of the likely impacts and risks, for different time slices, of climate change on land and water resources in Tajikistan;
- c) Preparation of an inventory of relevant past and current projects/initiatives in sustainable land management using a standardized framework and base on literature review and interviews. In choosing projects care will need to be taken that they are indeed focused on addressing climate change impacts on land management and not general agricultural and rural development efforts. The framework will include parameters such as objectives, activities, financing, target population (including especially vulnerable groups), implementation arrangements, geographical coverage, etc.
- d) Compilation of results, lessons learned, and replication and scaling-up opportunities. Specific attention will be paid to lessons and opportunities that:
 - o Are suitable to address land degradation issues that are climate sensitive (rather than simply reflecting poor management practices *per se*);
 - o Are innovative and demonstrate collaboration with key actors such as villagers, research institutions, etc.;
 - o Could be scaled-up or replicated in sub-sectors, and/or a wider area of the country;
 - o Will have a positive impact on vulnerable regions and sub-sectors in the country (links to the vulnerability mapping that will be undertaken as a Phase 1 activity of Tajikistan Climate Science and Impact Modelling Partnership)
 - o Will have a positive impact on the livelihoods of a relatively large proportion of the rural population.
- e) Analysis of findings focusing on results, lessons learned cost-effectiveness, replication and scaling-up and status of sustainable land management in the context of building resilience to climate change in Tajikistan. The analysis will include comparative statistics and aggregation of data where possible and appropriate across the projects/initiatives included in the inventory;
- f) A comparison of techniques and approaches in Tajikistan with good practice elsewhere in similar environmental and climatic conditions, highlighting opportunities for learning and linkages with others working on addressing land degradation in changing climate conditions;
- g) An analysis of the scope and progress of land reform and other land development and management policies. Including the level of support these processes are receiving and what, if any, further support can assist to move the process forward rapidly. Attention should be given to policies governing land uses associated with large scale degradation processes on already impacted terrain (e.g. rangeland and pasture). The analysis will also identify modalities within current institutional and legal frameworks for supporting promising sustainable land management approaches.

Section Four: Expected outputs and outcomes





The main outputs of this activity include:

1. An inventory and review of efforts to address land degradation reflecting the results of the above activities, including an analysis of results, lessons learned, good practice and replication and scaling-up opportunities in response to climate change;
2. A baseline of land management initiatives and results to date in Tajikistan;
3. An analysis of the current process and outlook for land policy reform;
4. Findings that can inform activities A1, A2, and A3 in Phase 1 of the PPCR, and strengthen overall operational aspects of those and Phase 2 activities.

Expected outcomes are:

- Improved understanding of past and current efforts to address land degradation in key economic sectors;
- Improved access to and availability of information on sustainable land management and climate change;
- Improved understanding of the opportunities and constraints of current land policy reform processes
- Identification of opportunities for Phase 2 investment through projects in proven improved land management technologies that will strengthen climate resilience. (Whilst precise recommendations cannot be predetermined, examples might be: drought tolerant crops, advice on crop diversification; improved/rehabilitated irrigation structures; improved pasture management; using trees and vegetation to stabilise river banks; more efficient in-field water; strengthening water user associations to improve water management; etc).
- Identification of needs and options to support policy reform processes, so that the incentives are in place to fully utilise improved land management practices;
- Identification of opportunities for supporting effective and promising SLM strategies within current frameworks so that investments are not wholly dependent on policy reforms; and
- Recommendations on the balance of PPCR Phase 2 funding that should be allocated to technical investments in climate resilient land management on the one hand and support to land policy reform processes on the other.

Section Five: Consistency of the activity with national priorities

In the context of climate change and variability addressing land degradation becomes even more imperative given its impacts and relationships with the country's production landscapes. The National Environmental Action Plan (NEAP) states that a primary challenge for the country is land degradation, including degradation of pasturelands, arable and irrigated lands and forests. The National Development Strategy (2015) and the Second Poverty Reduction Strategy also recognize the importance of addressing environmental issues for the country's development and poverty reduction goals.

The Ministry of Agriculture of the Republic of Tajikistan has stated that "agricultural development is a national priority of the country". In discussions with and proposed suggestions for PPCR, representatives from the Ministry of Agriculture emphasised that agriculture is the mainstay of the Tajik economy; contributing towards 24% of the GNP, two-thirds of employment, one-fourth of export and 39% of tax revenue. Therefore addressing resource degradation in arable and grazing lands is critical, and even more so when considering the country's vulnerability to food insecurity.

Land reform policies are in process (though far from complete) as are other policies that will permit new approaches to land development and management. This is reflected by proposals to provide farmers with longer term rights to arable land and provide communities the right to manage forest areas on long term-leases. These processes are taking place at both national and local level.

A focus on land degradation is also consistent with national efforts in other areas, such as disaster risk management, managing water resources and meeting energy needs.

Section Six: Coordination with other related initiatives



Since preparing an inventory of SLM activities is a primary purpose, examples of these types of projects are not included here. However, the activity will coordinate its work with Initiatives in other sectors that have a bearing on sustainable land management but do not have a specific SLM focus, e.g., agricultural financing, disaster risk management, food security, water resources, rural development, as well as multi-country projects.. A number of IFIs, international organisations and bilateral development agencies have relevant initiatives in this area, including (this is not an exclusive list):

- Rapid Emergency Assessment and Coordination Team (REACT)
- Tajik Agricultural Finance Facility (EBRD)
- Tajikistan Food Security Programme (EU)
- CACILM – Central Asian Countries Initiative for Land Management (ADB)
- Disaster Preparedness Program (EU)
- Land policy support initiatives (UNDP / GTZ)

Section Seven: Risks, Issues and Challenges

Lack of participation by key stakeholders. The willingness of stakeholders to share their knowledge and experience may be a challenge. However, in previous meetings of key actors in sustainable land management and related agriculture and rural development projects, there was general support for a review of projects and initiatives. Additionally, self-assessment using a simple format for lessons learned, results, and replication opportunities should encourage participation.

Reforms of land policies move slowly or stall. Policy reforms, to provide incentives to invest in sustainable land management, are key. If these are not in place, promoting new technologies and land management practices will make little headway. Phase 1 analysis will allow a more robust understanding of current opportunities and constraints and will guide the balance of effort and resources in Phase 2 between support for policy processes and the promotion of climate resilient land management practices.

Poverty and demographic pressures overwhelm attempts to support more sustainable land management. Currently, these two pressures combine to provide a constant, negative influence on farmers and communities adopting more sustainable land management practices. It is not possible to isolate the way land resources are managed from the wider rural economy and the limited opportunities that are available. Improved technologies, and policy shifts permitting more secure land rights, cannot solve this problem alone. These initiatives have to be placed in the context of broader economic development that provides wider, viable off-farm opportunities for significant numbers of people. Any initiatives proposed will need to be justified in the context of the opportunities and constraints faced by significant numbers of rural people, particularly the poor. The success or failure of these sort of rural initiatives is highly dependent on positive economic developments elsewhere in the economy.

Section Eight: Reference and background

Poverty Reduction Strategy (PRS-3)
 National Development Strategy (NDS-2)
 National Report, UN Convention on Combating Desertification (2006)
 National Environmental Action Plan (NEAP)
 Tajikistan : Country Environment Assessment (WB, 2008)
 Ministry of Agriculture's last 5 year plan

Section Nine: Financial Statement

An initial estimate of the potential cost of the activity is provided below

Component	Estimated staff input	PPCR support (\$)	Other support (\$)	Project total (\$)
Local Experts	7 man months	14,000		14,000
International Experts	7 man months	140,000		140,000
Equipment				
Travel & Subs		30,000		30,000
Events (consultation & final w'shops)		4,000		4,000
Communications		2,000		2,000
Miscellaneous		10,000		10,000
Total		200,000		200,000



Activity A6	7.2.3 Analysis of River Basin Approach to Climate Resiliency
Government Contact	<i>Ministry of Land Reclamation and Water Resources</i>
MDB contact	<i>The Asian Development Bank</i>
Objective of the proposed activity	To develop a replicable methodology to identify and enhance climate resilience on priority investments, at the river basin level, in vulnerable areas of Tajikistan.
Expected duration	<i>10 months</i>
Estimated Level of Funding	<i>\$400,000</i>
Section One: Justification and Objectives	
<p>Climate change is mostly about water. Regional studies from across the globe show that global warming is adversely impacting the cryosphere. At the sub-regional level, glacier-dependent river basins such as the Pyanj (Amu Darya downstream) and Syr Darya are vulnerable, as supporting riparian eco-systems are increasingly at risk of severe and widespread destabilization from climate extremes. Increasingly unstable hydrological resources are further threatening water-based infrastructure and services, such as irrigation, hydropower, and potable water, and consequently the national economy. Moreover, climate change poses increasing hazards and risk to already vulnerable downstream communities.</p> <p>It is significant that a disproportionately large percentage of the country's population reside along and around river basins to for their livelihoods. For example, the Khatlon population, the largest in the country, relies heavily on waters from the Pyanj river for their survival. Fetching water is also considered to be the responsibility of women in a majority of communities, making access to water a highly gendered issue with direct repercussions for the women in Tajik society. Further, the national economy and critical infrastructure and services are largely dependent on these glacier and snowpack-fed river basins.</p> <p>However, most if not all infrastructure investments and community-based development projects have been designed without accounting for possible climate-induced extreme weather events such as accelerated upstream snowpack and glacial melt, glacial lake outburst flood GLOFs, and prolonged drought. Moreover, in spite of the strong dependence on the natural environment, water-based development projects generally do not rely upon an integrated ecosystem-based approach to development.</p> <p>It is therefore proposed that a methodology be developed to help introduce climate resiliency practices at the level of vulnerable river basins, for replication in vulnerable river basins across Tajikistan (and in neighbouring countries). An analytical assessment will be conducted on the benefits and challenges of applying a cross-sector ecosystem-based approach to resiliency in existing infrastructure and sector development projects, at the river-basin level.</p> <p>The Khatlon region of the Pyanj river basin is a good candidate for Phase I piloting, as it represents a large river-basin dependent population, in a vulnerable glacier-fed river having various eco-systems similar to other geographic regions across Tajikistan, with several existing GoT and donor, MDB, and NGO investments requiring an assessment of impact and adaptation needs, and the potential for meaningful adaptation program synergies.</p>	
Section Two: Objectives	
<p>The main objective of this activity are to:</p> <ul style="list-style-type: none"> - Formulate a replicable methodology to help determine vulnerability and risk management approaches for river-basins, and river-basin dependent critical infrastructure and priority sector development projects, deemed to be at high risk from climate hazards. This will inform, in Phase II, development of a multi-sector risk screening, at the river-basin level, based on an ecosystem-based management approach to development. - Assess the benefits and challenges of upscaling existing GoT (and donor and MDB) investment priorities - including downstream infrastructure and community development projects - with incremental adaptation investment. 	
Section Three: Description of methodology and possible tasks to be undertaken under the activity	





Methodology:

- Formulate a replicable multi-sector methodology to help determine vulnerability and risk management approaches for river-basins, and river-basin dependent critical infrastructure and priority sector-based development projects, deemed to be at high risk from climate hazards. This assessment would be done through an ecosystem-based approach to adaptation.

Priority sectors would include: critical water infrastructure resiliency (dykes, irrigation, hydropower); downstream hazard management (including climate impacts & disaster risk reduction); land degradation and food security; riparian biodiversity corridor protection; and, transportation located within flood inundation areas.

It is envisioned that the resulting risk assessment framework could be piloted, during Phase II, within the Khatlon section of the Pyanj river basin to help determine potential sector-wide vulnerabilities, determine potential adaptation synergies with existing development efforts supported by government and donor agencies, and propose preliminary adaptive actions. A sector-based risk screening would then be conducted, at the river-basin level, based on an integrated ecosystem-based management approach, and (ii) potential adaptation measures in short and medium term basis will be proposed for Phase II based on the screening. Phase II results could be replicated in other vulnerable river basins in Tajikistan (i.e., Pyanj tributaries such as Kizilsu/Yakhsu/Vajsh), especially where multiple sectors are at high risk from impacts, requiring climate resiliency measures.

- A quantitative and qualitative analytical assessment would be conducted on the potential benefits and impediments of upscaling existing GoT (and donor and MDB) investment priorities at the river basin level (including downstream infrastructure and community development projects) with incremental PPCR adaptation investments.

The assessment would also determine the merits of capitalizing on existing project networks, established institutional capacity, and existing project resources. In so doing, it would help to assess the potential for more lasting (transformational) impact - a stated objective of the PPCR. The possibility for mal adaptation as a result of incremental adaptation upscaling will also be assessed.

Possible Tasks

- (i) Map-out existing government and donor (bilateral, UN, MDB) efforts in Khatlon area of Pyanj river basin, and conduct preliminary assessment of project and institutional capacity to absorb incremental adaptation investment. Also identify resource availability at level of: GoT, local government, MDBs and donor agencies, and vulnerable target community(ies).
- (ii) Provide quantitative and qualitative assessment on potential benefits and impediments of capitalizing on existing project network structures, established institutional capacity, and existing project resources, to measure the resiliency potential (and possible mal adaptation) of incremental PPCR adaptation investments.
- (iii) Identify existing local hydromet data sets; and other historical data requirements (especially cryosphere and glacial baselining) to inform possible Pyanj river-basin downscaled impact modelling for possible Phase II activities.
- (iv) Develop an analytical river-basin methodology to assess sector and ecosystem based risks to water-dependent infrastructure and downstream communities (including climate-induced and natural disaster hazards, and flood forecasting). This activity may rely upon the preliminary impact model results from A2, and inform development of a hazard and vulnerability map in Phase II.
- (v) Pre-assessment of rehabilitation/modernization of Khatlon area Pyanj river hydromet stations and river gauge networks to monitor anticipated river flow and flood forecasting from climate variability/extremes.
- (vi) Pre-assessment of ecological conditions of river basin ecosystems around Khatlon area of Pyanj (eg. tugai forest zone along dike infrastructure) to determine river defence, biodiversity corridor stabilization, improved infrastructure resiliency, and disaster prevention in downstream vulnerable communities.
- (vii) Preliminary recommendations for national and trans-boundary water management policy, institution strengthening, and implementation arrangements, based on river-basin and eco-system approach.

Section Four: Expected outputs and outcomes





Expected Outcomes include:

- Enhanced ability to climate proof priority investments at the river basin level

Expected Outputs include:

- Map of existing government and donor (bilateral, UN, MDB) efforts in Khatlon area of Pyanj river basin.
- Preliminary assessment of project and institutional capacity to absorb PPCR incremental adaptation investments.
- Quantitative and qualitative assessment on potential benefits and impediments of using PPCR investment.
- Rapid assessment of river basin ecosystems vulnerability around Khatlon area of Pyanj.
- Analytical river-basin methodology to assess sector and ecosystem based risks to water-dependent infrastructure, and downstream communities.
- Preliminary recommendations for water management policy, institution strengthening, and implementation arrangements, based on river-basin and eco-system based approach.
- Linkages identified (especially with components A2 - climate science & downscaled impact modelling; and A5 - land degradation & water resource management activities and outputs) to develop institutional and programmatic synergies.
- Lessons learned from multisector eco-system and river basin approach for possible use for Pyanj, its tributaries, and other climate-vulnerable river basins in-country (e.g., Syr Darya & Amu Darya), and for trans-boundary collaboration on water resource management.
- Identification of vulnerable sectors/groups, and livelihoods at risk.

Section Five: Consistency of the activity with national priorities

This activity is consistent with the *National Development Strategy of The Republic of Tajikistan for the Period to 2015*, to prioritize water resources, and look at Tajikistan's river basin development. This river basin assessment seeks to reinforce several sector investment and support climate and disaster risk management priorities, as stated in the Joint Country Partnership Strategy (JCPS); Tajikistan Development Plan; and National Disaster Risk Management Strategy and Action Plan.

Section Six: Coordination with other related initiatives

This river basin resiliency component would also rely upon existing efforts, including:

- Transboundary Amu Darya conservation efforts
- The Working Group on Water Resources activities.
- Donor financed projects in Khatlon Province reliant on the Pyanj river basin, such as JICA and UNDP.
- GoT and MDB investments, including disaster risk reduction projects, flood management measures, and riverine forestation for reclamation of arable lands.
- ADB Health & Adaptation Project in Tajikistan.

Section Seven: Risks, Issues and Challenges

Potential risks include:

- *River-basin and eco-system based approach not replicable:* Although a river basin and eco-system based approach to climate and disaster risk management may be a highly desirable methodology, the morphology and diversity of high mountain eco-systems in other river basins may limit the replicability of this approach.
- *Risk methodology unable to capture all sectors:* Because of the diversity of projects in the Khatlon area of the Pyanj river basin, and various river dependent eco-systems, the risk framework may not be able to capture all sectors.
- *Inability to use A2 model outputs:* The simultaneous implementation of components A2 (Science Partnership and Impact Modelling) and this component (A6) may not allow for the timely use of preliminary predictive downscaled model results to inform development of the analytical river-basin screening methodology, designed to assess sector and ecosystem based risks to water-dependent infrastructure.

Section Eight: References and background

- National Disaster Risk Management Strategy and Action Plan.
- Disaster and Emergency Ministry (?) work in Khatlon area.
- Climate Impact Projections (A2) for Tajikistan HydroMet planned.
- Working Group on Water Resources.

Section Nine: Financial Statement

An initial estimate of the potential cost of the activity is provided below

Component	Estimated staff days	PPCR support (\$)	Other support (\$)	Project total
(3) Local Experts	10 person months	\$60,000		\$60,000





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International Experts	12 person months	\$240,000		\$240,000
Equipment				
Travel & subsistence		\$50,000		\$50,000
Events		\$20,000		\$20,000
Miscellaneous		\$30,000		\$30,000
Total		\$400,000		\$400,000





8 Annexes

8.1 Tajikistan's climate change impacts and vulnerabilities

Climatic change	Impact	Sector vulnerabilities	Adaptive capacity
Warming above the global mean in central Asia	Increase in average plain region temperatures of 0.5°-0.8° C and mountain region temperatures of 0.3°-0.5° C in 60 year period.	<ul style="list-style-type: none"> - <i>Glacier</i> stock changing with increased warming, especially in high-altitude areas such as Pamir, Zeravshan and Pamir-Alai. - Extinction of <i>natural ecosystem and species</i> such as the <i>Marmota menzbieri</i> previously found in Northern Tajikistan. - Increased vulnerability of <i>human health</i> to malaria, infectious and non-infectious diseases 	<p>Very limited understanding of how these particular changes in climate will impact people, lives and livelihoods in Tajikistan. Poor understanding coupled with issues of limited resources has resulted in weak adaptive capacity to climate change.</p> <p>The challenges are compounded by the fact that in almost all areas the scientific evidence and data is very poor, making adequate adaptive responses next to impossible.</p> <p>Gaps in the basic institutional framework, include:</p> <ul style="list-style-type: none"> ▪ Weakness in national systems for acquiring and managing meteorology and hydrology data, with severe implications for assessing near and longer term climate trends, and limited access to climate change information; ▪ Low awareness of government officials, academia, business circles, and the public on the adverse risks and impacts of climate change, and limited technical skill pool; ▪ Lack of integration of climate change risk in national development strategies and sectoral investment plans.
Decrease in precipitation in the summer	The number of days with precipitation has decreased in the country.	<ul style="list-style-type: none"> - <i>Water</i> flow of Varzob River – most significant source of water supply for Dushanbe – closely linked with precipitation patterns, especially in the mountains. 	
Reduction in snow and ice	Continuous periods, such as from 1970-1984 with low amounts of rainfall	<ul style="list-style-type: none"> - Direct impact on river <i>water</i> availability, size of snowmelt flood and level of moisture in soil. 	
Increasing frequency and intensity of extreme events particularly, intense rainfall events causing landslides and severe floods	Heavy rains, high waters caused by mudflow, high air temperature accompanied by droughts, strong winds and dust storms, frosts and extreme cold temperature cause most damage to agriculture.	<ul style="list-style-type: none"> - <i>Agricultural</i> challenges such as irreparable damage to cotton crop especially in Spring - Hail damages plants, breaking stems and reducing the quality and yield of crops. 	



8.2 Executive Summary of the Joint Programming Mission Report

This report summarises the findings of the first Joint Programming Mission (JM) to Tajikistan under the Pilot Program for Climate Resilience (PPCR), which took place from 12th to 22nd October 2009. The aim of the JM was to take stock of the range of climate change related activities in Tajikistan, and reach agreement with the Government of Tajikistan (GoT) on the process and the broad scope of potential activities of the PPCR.

The JM was carried out by four International Financial Institutions (IFIs): the World Bank (WB; overall PPCR coordinating institution), Asian Development Bank (ADB), International Finance Corporation (IFC), and European Bank for Reconstruction and Development (EBRD). The mission also benefitted from significant engagement with major bilateral donors such as the UK Department for International Development (DFID - Associate Member)¹⁸, and the United Nations Development Program. Mission members are listed in Annex 3.2.

Broad consultation underpinned the approach adopted by the JM to identify key climate change vulnerabilities, priority needs and notional ideas for potential PPCR themes. A two-day workshop was held from 13th -14th October, and five field trips were carried out over a three-day period (15th - 18th October) involving visits to a number of sites and stakeholders. During these activities, the Joint Mission consulted with a large number of government ministries and departments, donor agencies, international organisations and civil society.

The Joint Mission confirmed that Tajikistan is highly vulnerable to climate variability and change, with a very low capacity to cope. Whilst it was clear that the policy analysis, investments and capacity-building components of the PPCR would not be able to address all challenges, the PPCR's added value was recognised in at least the following elements:

- Provide the opportunity to move further away from a reactive type of assistance to a more proactive approach by expanding the time horizon to assess the impact of government-financed and donor-supported investments on socio-economic and environmental issues facing the country;
- Be a catalyst for coordination amongst relevant ministries and policy departments in the GoT, and with multilateral and bilateral donors operating in-country and in the region;
- Provide a framework to consider climate change as a crosscutting issue several sectors of Tajikistan's economy, including agriculture and food security, water resource management, energy security, and transport;
- Identify opportunities to facilitate private investment in climate change resiliency activities, that complement state actions and limited public financial resources;
- Contribute to building institutional and human capacity in areas relevant to climate resilience; and
- Support the creation of a solid evidence base for adaptation-related policy making.

The consensus emerging from the consultations was that, for the PPCR to be truly "transformational" (given its limited time and budget), interventions would have to be carefully targeted and selective. Despite this constraint, it is envisaged that interventions could reach all levels of governance – from national to sectoral to local. The following emerging themes and issues were identified as key priorities for the PPCR in Tajikistan:

2. Country - level actions

¹⁸ DFID's financing and management of the AEA consulting team - to support the IFIs JM and Phase 1 of the PPCR - is gratefully acknowledged





- a) Strengthening the capacity of the country to produce and utilize better climate data and climate science;
 - b) Improving governance and line ministry institutional structures to manage inter-sectoral climate risks in country; and
 - c) Building stronger linkages between overarching goals of poverty reduction and human development through technical interventions that respond to climate change threats.
3. Sector - level actions:
- e) Reducing the vulnerability of the energy sector to climate shocks and longer term climate variability;
 - f) Improving country capacity to deal with climate-related disasters, particularly those affecting the most vulnerable groups and sectors; and
 - g) Building resilience of the agricultural sector and rural economy to reduce its vulnerability to climate change threats.
4. Project - level actions:
- c) Advancing screening of projects to assess climate risks, and piloting transformational approaches to increase climate resilience to support longer-term sustainability of existing and future investments
 - d) Ensuring that local (especially traditional environmental) knowledge and adaptation initiatives are considered and integrated into project design and implementation practices
5. Local and community - level actions:
- a) Ensuring consideration of the needs and participation of vulnerable groups, particularly the rural poor, women, children and minority groups.

These priority areas and themes are also reflected in Tajikistan's Second National Communication to the UNFCCC¹⁹, are consistent with aims of the National Development Strategy²⁰ and Joint Country Partnership Strategy (JCPS)²¹, and are likely to be consolidated in the third Poverty Reduction Strategy (PRS-3) currently under development.

The PPCR process received full political backing from the Prime Minister's office and the line Ministries. However, the Joint Mission identified a number of risks and barriers that need to be addressed in order to ensure a transformational impact as a result of the PPCR interventions, and that these lead to a reduction in Tajikistan's vulnerability to climate change. Key risks identified to date are highlighted below:

- *Managing stakeholders' expectations* - The PPCR cannot address all the social and environmental challenges that Tajikistan faces. Recognising the financial and policy limitations of the PPCR, it will be important to ensure that interventions are targeted and coordinated. In a country desperately in need of investments in all areas, from governance and institutional frameworks to physical infrastructures – drawing a line may prove difficult and will require careful management. It is vital that the PPCR consider synergies with other complementary financing options such as the Adaptation Fund, the GEF and new financial mechanisms likely to emerge from a new post-2012 international agreement on climate change.
- *Continuing to advance on broad ownership* – Cooperation with a range of development partners in the early stages of the PPCR has already proven to be

¹⁹ http://unfccc.int/national_reports/non-annex_i_natcom/items/2979.php

²⁰ http://www.untj.org/principals/files/nds/nds_first_draft.pdf

²¹ www.adb.org/Tajikistan



extremely valuable and needs to continue and expand throughout the development and implementation of the PPCR to build synergies amongst approaches and broad support and ownership. It will be important to ensure meaningful and sustained engagement of key stakeholders, including government ministries, UN agencies, bilateral and regional development agencies, NGOs & CBOs, and the private sector. Transformational adaptation projects must be formulated with community buy-in to genuinely meet the needs of vulnerable populations and sectors in especially sensitive areas of Tajikistan, and ensure social dimensions are captured in PPCR programming

- *Enhancing awareness and understanding of climate change risks and possible interventions in Tajikistan* – ultimately, the effectiveness of the PPCR interventions will depend on the level of understanding of climate risks in the country. This is currently very limited. Understanding climate change in Tajikistan is not only about better data or better modelling but also about the development of a more comprehensive climate change evidence base, expert human capital, and education and outreach both inside and outside government. The PPCR will therefore need to explore issues of: 1) technical infrastructure and capacity to measure, monitor and make use of climate-related and socio-economic data; 2) institutional capacity and ‘insight’ to translate data into impartial evidence and advice that can be used to inform policy; and 3) structures and institutions that enable long term integration of the resulting evidence into national and sub-regional policies, plans and programmes, and international negotiations.
- *Remaining open to changes in the international architecture of assistance on climate change* – The JM took place before COP-15 in Copenhagen, which will make further progress on international commitments and assistance mechanisms to respond to climate change mitigation and adaptation needs. It is possible that as the PPCR moves forward, that enhanced mechanisms will be advanced on such key issues as (for example) providing better linkages between mitigation and adaptation programs in forestry and agriculture (e.g. Reducing Emissions from Deforestation and Forest Degradation) or scaling up energy efficiency investments in smaller GHG-emitting countries. The PPCR team will be alert to assisting the GoT on understanding these changes and realizing opportunities for support.

Effort in the coming months will focus on:

- Continuing to refine and carry out Phase 1 analytical tasks and consultations along with associated funding requirements for the government-executed grant, mindful of time restrictions on overall PPCR implementation;
- Defining the roles and responsibilities of key stakeholders, including key line Ministries, UNDP, bilateral donors and civil society, in the development of Phase 1 and Phase 2;
- Defining a process for the formulation and the implementation of the Strategic Programme for Climate Resilience.





8.3 Programme of the PPCR mid-term mission

1. Scope

1.1 A mid-term mission of Multilateral Development Banks took place on March 4-11, 2010 to review the draft PPCR Phase 1 Grant Proposal, that includes up to \$1.5 million of proposed analytical work to support the Government of Tajikistan in the effective integration of climate resilience in development planning.

2. Objectives

2.1 The main objective of the mission was to create consensus on the priority areas, objectives and outputs of the activities of the Grant Proposal and strengthen relationships with government and non government stakeholders. The mission discussed the proposed activities of the Grant Proposal with a wide range of stakeholders in Tajikistan. The mission also aimed to strengthen relationships with a large group of stakeholders, including government of Tajikistan, international stakeholders and civil society, and identified other relevant players who were brought into the discussion.

3. Approach

3.1 Discussions with Government and non-government experts on the proposed objectives, activities and outputs of the Program Document that were integrated and inform the Government's application for Phase 1 grant assistance;

3.2 Discussions with Government, MDB program implementation experts, and others on possible implementation arrangements for Phase 1 grant-supported actions;

3.3 Meetings with UNDP, other international and bilateral organizations and CSO's regarding their complimentary work in each field and possible intersections in program implementation;

3.4 A one day workshop with a broad range of stakeholders informing them of progress on the PPCR and steps leading to the next Joint Mission and preparation of the Strategic Program for Climate Resilience;

3.5 Assistance to Government representatives who attending the CIF Partnership Forum in Manila the week of March 15th;

4. Outputs

4.1 A debriefing with the Deputy Prime Minister and officials from line ministries

4.2 A close to final draft of the Grant Proposal discussed and agreed by the MDBs present in Dushanbe

4.3 The completion of a succinct draft Aide Memoire on mission capturing key observations, findings and next steps





Provisional Programme

Day	Venue	Description	Chair/Panel	Participants
THURSDAY 4 March 2010 - Informal meeting of the development partners				
PURPOSE: welcome MDBs representatives in Dushanbe and finalise the Mission Programme				
14:00	WB office	Meeting of development partners to finalise the mission programme		ADB, EBRD, WB, DFID & Consulting Team
FRIDAY 5 March 2010 - Consultation with Government and non-government experts on the Grant Proposal				
PURPOSE: to develop further and move towards agreement on the proposed objectives, activities and outputs of the Grant Proposal				
9:15 – 16:30	Kohi Vahdaat	One-day Stakeholder Consultation Workshop on main themes of the PPCR Phase I grant proposal	Sulton Rahimov (GoT) Ron Hoffer (MDBs)	<p><i>Government and non-government experts</i></p> <p>The GoT: Ministry of Agriculture Ministry of Energy Ministry of Water Ministry of Economic Development Ministry of Transport Ministry of Health Ministry of Finance Committee for Emergency Situations Committee for Environmental Protection State Agency for Land Management State Committee for Investments and State Properties Management</p> <p>Government's agencies: Hydromet Academy of Science State Organisation for Forestry Academy of Agricultural Sciences</p> <p>Academia: State National University State Agricultural University</p>





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				<p>State Technical University</p> <p>International organisations: UNDP, UNEP, FAO, WHO, FOCUS</p> <p>Bilateral donors: EC, DFID, GTZ, Swiss Cooperation, USAID</p> <p>MDBs: ADB, EBRD, WB, IFC</p>
SATURDAY 6 March 2010 - Meetings of the MDBS PURPOSE: to identify potential synergies with current and planned initiatives in Tajikistan				
10:00 – 13:00	WB	Meeting of MDBs and Consulting team with UNDP and other international and bilateral organizations to discuss their complimentary work in each field and possible intersections in program implementation		<p>UNDP, UNEP, FAO, WHO, FOCUS, RED CROSS, OXFAM</p> <p>DFID, EC, GTZ , Swiss Cooperation</p>
14:00 – 15:00	WB	Meeting with Sulton Rahimov (GoT)		MDBs
SUNDAY 7 March 2010 - Meeting of the MDBs and the Consulting team/Meeting of the MDBS PURPOSE: to take stock of the findings of the consultations				
14:00 - 17:00	WB	Meeting of the MDBs and the Consulting team to finalise the sections of the grant proposal		ADB, EBRD, WB, DFID Consulting Team





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Monday 8 March 2010				
PURPOSE: to consolidate the Grant Proposal and identify next steps				
15:00 – 20:00	WB	Developed the final draft of the grant proposal		Consulting Team
Tuesday 9 March 2010 - Meeting with Government Officials of the Republic of Tajikistan and other stakeholders				
PURPOSE: to make progress in the design of the GP implementation arrangements and inform stakeholders of the PPCR progress				
10:00 - 12:00	WB	Developed draft Aide Memoire		Ron Hoffer
13:00 – 15:00	Lunch	Discussed and finalised Aide Memoire		MDBs and Consulting Team
15:30 – 17:00	TBC	Meeting of PPCR leads with Country Heads to discuss agenda of meeting with Deputy Prime Minister and briefing on PPCR progress during the week		World Bank, ADB, EBRD & IFC Consulting Team
Wednesday 10 March 2010				
PURPOSE: to facilitate endorsement of the Grant Proposal				
10:00 – 11:30	Office of the Deputy Prime Minister	Final debriefing with the deputy prime minister and the line ministries on the consolidated activities that may be proposed for the application for the Phase 1 grant assistance.		Deputy Prime Minister Line Ministers MDBs Consulting Team
16:00 – 18:00	TBC	Wrap-up and discussion of next steps among MDBs and Consulting Team		MDBs Consulting team





8.4 PPCR Stakeholder Consultation Workshop on Activities for Grant Assistance

5th March 2010, Dushanbe

08:30 – 09:00	Tea/ Coffee and Registration of Participants
09:00 – 10:00	<p>Session 1: Opening <i>Chairs: Sulton Rahimov (GoT) and Ron Hoffer (WB)</i></p> <ul style="list-style-type: none"> ▪ Introduction and Opening Remarks of Chairs ▪ Presentation on PPCR in Tajikistan (WB, ADB, EBRD and IFC) ▪ Short introduction of PPCR and objectives of the working sessions
10:00 – 10:30	Tea/Coffee Break
10:30 – 12:00	<p>Parallel Working Sessions</p> <p>Session 2a: Energy Security <i>Discussion Facilitator: Craig Davies (EBRD)</i> <i>Rapeteur: Ministry of Energy and Industry</i></p> <ul style="list-style-type: none"> ▪ Purpose of the discussion (facilitator) – 10 mins ▪ Discussion on the objectives, scope and outputs of the proposed activity – 1 hour ▪ Summary of the discussion (facilitator) – 15 mins <p>Session 2b: Sustainable Land Management <i>Discussion Facilitator: Simon Croxton – World Bank</i> <i>Rapeteur: Academy of Agricultural Sciences</i></p> <ul style="list-style-type: none"> ▪ Purpose of the discussion (facilitator) – 10 mins ▪ Discussion on the objectives, scope and outputs of the proposed activity – 1 hour ▪ Summary of the discussion (facilitator) – 15 mins <p>Session 2c: Awareness Raising <i>Discussion Facilitator: Cinzia Losenno - AEA</i> <i>Rapeteur: Malik Ajani - FOCUS Humanitarian Assistance</i></p> <ul style="list-style-type: none"> ▪ Purpose of the discussion (facilitator) – 10 mins ▪ Discussion on the objectives, scope and outputs of the proposed activity – 1 hour ▪ Summary of the discussion (facilitator) – 15 mins
12:00 – 13:00	Lunch





13:00 – 14:30	<p>Parallel Working Sessions</p> <p>Session 3a: Climate Science <i>Discussion Facilitator: Peter Hayes (ADB)</i> <i>Rapeteur: Ilhom Rajabhov (Climate Change Centre)</i></p> <ul style="list-style-type: none"> ▪ Purpose of the discussion (facilitator) – 10 mins ▪ Discussion on the objectives, scope and outputs of the proposed activity – 1 hour ▪ Summary of Outputs/Results (facilitator) – 15 mins <p>Session 3b: Strengthening Institutional Arrangements <i>Discussion Facilitator: Ayesha Siddiqi (AEA)</i> <i>Rapeteur: Ministry of Health</i></p> <ul style="list-style-type: none"> ▪ Purpose of the discussion (facilitator) – 10 mins ▪ Discussion on the objectives, scope and outputs of the proposed activity – 1 hour ▪ Summary of discussion (facilitator) – 15 mins <p>Session 3c: Water Resource Management and Disaster Risk Reduction <i>Discussion Facilitator: Andy Baker - OXFAM</i> <i>Rapeteur: Committee for Emergency Situations and Civil Defence</i></p> <ul style="list-style-type: none"> ▪ Purpose of the discussion (facilitator) – 10 mins ▪ Discussion on the objectives, scope and outputs of the proposed activity – 1 hour ▪ Summary of discussion (facilitator) – 15 mins
14:30 – 15:00	<p>Tea/Coffee Break</p>
15:10 – 16:30	<p>Session 4: Joint Session of All Participants <i>Chairs: Shapirov (GoT) and Ron Hoffer (WB)</i></p> <ul style="list-style-type: none"> ▪ Report back from all sessions (rapeteurs & facilitators) – 50 mins
16:30 – 17:00	<p>Session 5: Closing Remarks and Next Steps</p> <p><i>Panel: GoT, WB, ADB, EBRD</i></p> <ul style="list-style-type: none"> ▪ Remarks on workshop’s findings

