

# EMPOWERING

## CLIMATE-SMART PLANNING AND DECISION MAKING

THE IMPACTS OF CLIMATE CHANGE—IN THE FORMS OF WATER STRESS; FOOD INSECURITY; HEALTH RISKS; AND LOSS OF BIODIVERSITY, ECONOMIC PRODUCTION, AND LIVELIHOODS—ARE BEING FELT WORLDWIDE. DEVELOPING COUNTRIES ARE BEING DISPROPORTIONATELY AFFECTED DUE TO GEOGRAPHY, GREATER SOCIAL AND ECONOMIC VULNERABILITY, AND LOW ADAPTIVE CAPACITY. ATTENTION MUST BE GIVEN TO RESPONDING TO THE IMPACTS OF CLIMATE CHANGE THAT ARE ALREADY OCCURRING, WHILE AT THE SAME TIME PREPARING FOR FUTURE IMPACTS.

The CIF's \$1.2 billion Pilot Program for Climate Resilience (PPCR) is helping nine pilot countries and two regional programs (including nine small island nations) build resilience and adapt to climate change. Using a two-phase, programmatic approach, the PPCR first assists national governments in integrating climate resilience into development planning across sectors and stakeholder groups. Second, it provides additional funding to put the plan into action and pilot innovative public and private sector solutions to pressing climate-related risks.

FIGURE 6 OVERVIEW OF THE PPCR



To date, \$777 million—70 percent of allocated PPCR funding—is approved and under implementation. It is expected to attract an additional \$1.1 billion in co-financing for 44 projects covering a range of climate-vulnerable sectors.

The PPCR is currently the largest adaptation fund in the world, and second only to the International Development Association (IDA) in its support to small island states, totaling \$243 million. In 2014, the United Kingdom made a new pledge of at least \$78 million<sup>9</sup> to the PPCR, bringing the PPCR to \$1.2 billion in total pledges and supporting expansion to additional countries in 2015.

### PPCR PROGRAMMING PHASE

The PPCR empowers countries to approach climate resilience in a programmatic manner. Moving beyond project-by-project

activities that have limited potential to effect national or sectorwide transformations, a programmatic approach entails a long-term, strategic arrangement of linked investment projects and activities to achieve large-scale, systematic impacts and take advantage of synergies and co-financing opportunities.

Resilience building must be broad-based to be effective. During the initial PPCR programming phase (Phase 1), PPCR countries, with support from the MDBs, examine climate resilience priorities across key economic sectors and stakeholder groups, identify gaps, and ultimately produce a strategic program for climate resilience (SPCR). The SPCR builds on the government's National Adaptation Program of Action (NAPA), complements existing adaptation funding, and considers the most vulnerable members of the population.

### BOX 4 PPCR PROGRAMMING ACTIVITIES

Research shows<sup>10</sup> that countries need to be enabled to manage international climate finance, or related streams, and channel it to their priority areas of action. The PPCR aims to achieve this goal through programming activities and grants and some related readiness interventions that spill over into the implementation phase.

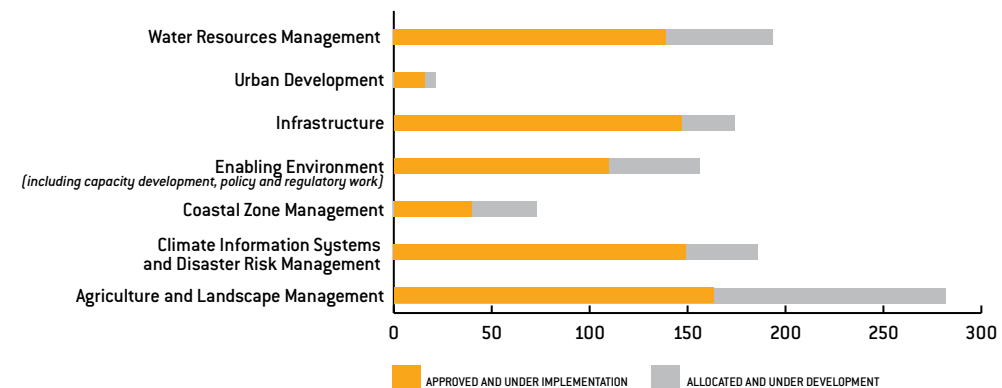
#### Programming key tasks

- Analysis of climate risks: Use appropriate modeling tools and establish priorities among sectors and themes
- Institutional analysis: Identify gaps, knowledge, and institutional capacities to build climate resilience
- Knowledge and awareness raising: Disseminate key messages and discuss the outcomes of studies and institutional gaps and needs with a broad range of stakeholders
- Capacity building: Develop activities to address critical capacity needs
- Consultation process: Ensure a socially inclusive process during consultations, so that input is received from a wide range of actors

**Result:** A strategic program for climate resilience (SPCR) that is nested in national development goals and specifies how a country will use the available PPCR resources

**Next step:** Countries implement projects and programs indicated in the SPCR

FIGURE 7 PPCR IS SUPPORTING CLIMATE RESILIENCE ACROSS SECTORS





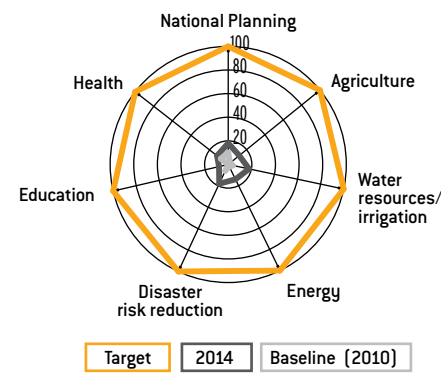
Preparing an SPCR is an ambitious undertaking, which the PPCR supports with grant financing of up to \$1.5 million per country (totaling \$13 million to date) to support technical analysis and strategizing, policy reform, capacity building, and long-term institutional strengthening. The result is a strong foundation, from which countries can mainstream climate resilience in a comprehensive manner and improve their capacity to implement projects and supported activities.

Countries outside of the PPCR are taking note and adopting the PPCR programming process on their own. In 2013, [Belize](#), together with the World Bank, embarked on an extensive project identification and prioritization process to develop a national climate resilience investment plan based squarely on the PPCR. Belize was able to present its progress and gain valuable feedback at the 2013 PPCR pilot country meeting. In 2014, the World Bank announced that 25 countries under its grants and concessional loans arm, IDA, will adopt the PPCR model to create their own country-led, multisectoral plans for managing climate and disaster risk in development.

PPCR 2014 results reporting also indicates that countries are making strides in integrating climate change considerations into national planning since the endorsement of their SPCRs (figure 8). Countries justify this progress by various initiatives, ranging from adoption of new adaptation strategies to the availability of robust scientific evidence and effective decision making on climate change. More progress is expected once more PPCR investments and technical assistance projects get under way.

It is also evident that the PPCR is having a positive effect on strengthening governments' capacity to consider climate risks and climate resilience and mainstream those considerations into national decision-making processes. Each of the 14 PPCR countries that reported on this indicator, as illustrated in figure 9, has established a national coordination body to lead the national response to climate change. Although many of the mechanisms are not yet fully functional and have not yet fully involved their nongovernmental stakeholders, such as civil society and the private sector, progress is encouraging.

**FIGURE 8 DEGREE OF INTEGRATION OF CLIMATE CHANGE INTO NATIONAL AND SECTOR PLANNING IN TAJIKISTAN\***



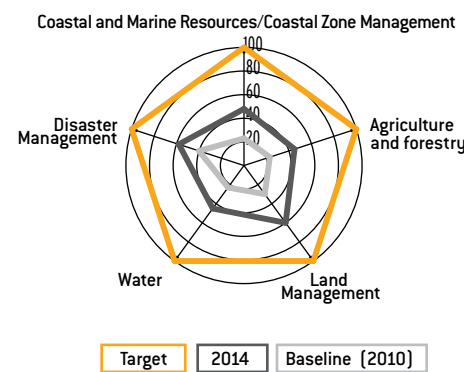
#### TAJIKISTAN

At the outset of the PPCR programming phase, [Tajikistan](#) did not have a NAPA that could be used to develop the SPCR, nor did it have a dedicated agency to lead climate-related policies and projects. It also lacked local capacity. A large component of Tajikistan's \$1.5 million PPCR programming grant supported institutional capacity building and the establishment of the PPCR secretariat, a coordination unit attached to the prime minister's office.

The PPCR programming phase was critical for conducting studies and assessments to build the analytical base and prepare projects

In Tajikistan the slight increase in national planning between 2010 and 2014 reflects the approval in June 2013 of the National Action Plan on the Reduction of the Consequences of Climate Change. The increase in the score of the agriculture sector (from 2 percent in 2010 to 12 percent in 2014) reflects climate resilience measures embedded into Tajikistan's new Agriculture Sector Reform Program for 2012–2020.

**FIGURE 9 EVIDENCE OF STRENGTHENED GOVERNMENT CAPACITY AND COORDINATION MECHANISMS TO MAINSTREAM CLIMATE RESILIENCE IN ST. VINCENT AND THE GRENADINES\***



In St. Vincent and the Grenadines, the government's capacity and coordination mechanism to mainstream climate resilience increased substantially, from 38 percent in 2013 to 52 percent in 2014. This increase was largely aided by a drive to increase the level of climate change expertise through training and better equipment to complement climate risk management. A cross-sectoral committee to address coastal zone management was also appointed.

\* Samples of 2014 PPCR results reporting on indicators 1 and 2



**500,000 HOMES** TO BENEFIT FROM UPGRADES TO THE AGING QAIROKKUM HYDROPOWER PLANT IN TAJIKISTAN

for financing through the development of an SPCR. With support from the ADB, European Bank for Reconstruction and Development (EBRD), and World Bank, Tajikistan increased understanding and awareness of climate change. One of six technical assistance projects analyzed the impact of climate change on the country's hydropower production and capacity, leading to greater priority on investments in the energy sector.

Tajikistan's hydropower plants, which supply approximately 96 percent of the country's electricity, are highly exposed to climate risks such as glacial melting and changing precipitation patterns. PPCR financing (\$11 million grant under the SPCR and \$10 million in concessional financing under the PPCR private sector set-aside), channeled through the EBRD, is supporting the first phase of the [Qairokkum hydropower plant upgrade](#). Built in 1957, the plant is the only electricity generating facility in northern Tajikistan, supplying power to over 500,000 homes.

The first phase of the upgrade will increase the plant's capacity from 126 MW to 142 MW with the installation of two new and larger turbines. In designing the project, EBRD and Tajik planners calculated future changes in river flow and electricity production, based on hydrological modeling over a range of climate

scenarios. That process enabled them to select the turbines that showed the best economic performance across the entire range of possibilities.

PPCR financing will also be used for the ongoing restructuring of Barki Tojik, a state-owned power company. The project will address institutional barriers to electricity tariff reform by supporting adoption and implementation of new tariff methodologies in line with international standards. It will also assist with introducing relevant legislation, a key priority for the commercial development of the Tajik energy sector.

#### NEPAL

As part of the PPCR programming process, [Nepal](#) assessed the capacity of stakeholders to adapt to climate change and identified gaps within vulnerable communities, households, and sectors (e.g., water, forestry, health, agriculture) and key government agencies. As Nepal passes into the implementation phase, PPCR \$7.2 million, administered by the ADB, is supporting a capacity development technical assistance project to facilitate the integration of climate change adaptation and resilience objectives into infrastructure development.

"THE PPCR HAS BEEN ABLE TO BRING ALL OUR DEPARTMENTS TOGETHER, AND NOW WE HAVE CORE TEAMS IN EACH AGENCY THROUGH WHICH WE CAN ACTIVELY SHARE AND ENHANCE KNOWLEDGE ON CLIMATE RESILIENCE ISSUES."

**AKHANDA SHARMA**

*Ministry of Science, Technology and Environment, Nepal*

Climate change threat profiles for eight districts are being prepared to provide decision makers with more geographically targeted information as they set priorities among climate resilience investments in different sectors and geographical areas. Creating these profiles includes the development and application of risk screening methods in irrigation, flood protection, roads, water supply and sanitation, and urban development projects, as well as training for people who will be in charge of climate risk management in government infrastructure agencies. These profiles will also help build awareness of climate change impacts among vulnerable communities.



## HYDROMETEOROLOGICAL AND CLIMATE SERVICES

While every SPCR developed under the PPCR is unique, all include investments, either as stand-alone projects or as components of technical assistance or projects, to strengthen hydrometeorological and climate services (HCS). All of the MDBs are supporting one or more of these investments. Approximately \$200 million (18 percent of allocated PPCR funding) is for enhancing HCS, which is considered essential to enable more informed decision making to transform and mainstream climate-resilient development.

HCS contributes directly to resilience and is a key enabler of a broad range of adaptation decisions, such as disaster relief management systems, early warning systems, and agricultural extension systems. Private companies and businesses also need and rely on the data provided by HCS to make

investment decisions related to climate risk mitigation for their operations. To maximize HCS potential and long-term sustainability, the PPCR is particularly focused on activities that raise the value and usability of these services. PPCR investments encourage data pooling and sharing across agencies and sectors, while putting the needs of end users first in developing and delivering climate information tools and services.

### ZAMBIA

In Zambia, increased floods and droughts, coupled with aging canal systems that cannot properly drain land for planting, make life difficult for the rural populations along the Kafue and Barotse sub-basins of the Zambezi River. They depend on rain-fed agriculture and natural resource-based livelihoods, such as fishing, forestry, and livestock raising. Zambia's \$91 million SPCR aims to reduce the

negative impacts of climate and environmental hazards on agriculture. One key way will be to provide reliable and timely weather and climate information to farmers and their communities in local languages.

Among the solutions being piloted by the World Bank is a free mobile phone text messaging (SMS) system that local people will use to receive and send information about weather conditions. Texts will be monitored by trained teams that will use the freeware to geo-reference and map the origin of text messages. They will be able to discern quickly and accurately, for example, the extent of floods or emergency needs. Teams will also provide agricultural advice to farmers via SMS, so that they can plan in advance for the forthcoming season. In the longer term, the data collected will help farmers gain a better understanding of climate risks and adapt their crop growing cycle to shifting rainfall patterns.

## BOX 6 EXPANDING LEARNING ON HYDROMETEOROLOGICAL AND CLIMATE SERVICES



HCS practitioners from seven PPCR countries—Haiti, Mozambique, Niger, St. Lucia, Tajikistan, Yemen, and Zambia—attended the Fourth International Conference on Climate Services and a PPCR workshop on “Enhancing User Uptake of Climate Services in PPCR Countries” in Montevideo, Uruguay, in December 2014. PPCR participants were able to interact with international experts in the field, share their experiences, and gain training on tailoring climate services to the needs of users. With CIF support, these countries have

established a mechanism for sustained engagement and continued learning and are exploring the potential for South-South learning exchanges as a peer group.

### Water, Weather, and Climate Services

Transforming climate data into useful information and products requires adequate financial support, human resources, and an assessment of the needs of specific end users of climate services. In collaboration with PPCR task teams and other development partners, the

World Bank is leading the development of the e-learning course, “Water, Weather, and Climate Services: A Value Chain Approach to Project Design.” Set to launch in 2015, the e-course explains the components of the climate services value chain, including identifying user needs and benefits, service development and delivery, observation and monitoring, and stakeholder engagement to build capacity.