PROMOTING CLIMATE-RESILIENT WATER MANAGEMENT AND AGRICULTURAL PRACTICES IN RURAL CAMBODIA

CONTEXT

Cambodia is one of the poorest nations in South-East Asia. 70-80% of its population depends on the agriculture sector for their livelihoods. Water plays a critical role in agricultural productivity, which is largely dependent on the monsoon rains, which account for nearly 80-90% of the country’s annual precipitation. Recent research findings suggest that climate change will cause an increase in temperature and disruptions in the monsoon system. These predicted changes will have a significant impact on the majority of Cambodian rural farmers, whose livelihoods depend on good and predictable weather.

To reduce the potential impacts of climate change on rural farmers, the Royal Government of Cambodia, with financial support from the Global Environmental Facility’s Least Developed Countries Fund (LDCF), initiated a climate change adaptation project in 2009. The project implemented specific adaptation measures in 16 target communes in the provinces of Preah Vihear and Kracheh, which are plagued with droughts and floods, respectively. In 2013, the Government of Canada agreed to build on and scale up results emerging from the LDCF projects under the new Canada-UNDP Climate Adaptation Facility (CCAF). This new phase aims to reduce the vulnerability of the agricultural sector to climate-induced changes in water resources availability, using a one village approach\(^1\).

\(^1\) A one village approach focuses on a suite of interventions in the same localities for synergy of impacts and economy of scale.
Proposed Interventions

1. Capacity building of local institutions to manage agricultural water resources in a changing climate - Improving the understanding of gender-differentiated impacts and risks from climate change among local communities and planners, and strengthening a community-based information system to facilitate resilient agriculture;

2. Demonstration of locally appropriate adaptation options to reduce exposure to climate-induced risks – Establishing methods for resilient livelihood methods, expanding irrigated agricultural areas, constructing community-level water supply infrastructure, and strengthening women’s capacities to manage this infrastructure; and

3. Documentation of lessons learned from pilot sites for replication, dissemination and knowledge transfer to other vulnerable areas in Cambodia – Raising public awareness about climate risks, improving knowledge about adaptation investments and gaps, and conducting gender-disaggregated impact assessment in pilot sites.

Key Achievements to Date

As of April 2015, the CCAF project in Cambodia has made significant progress towards expected results as demonstrated below:

- **Climate change risks were mainstreamed into 16 Commune Investment Programmes**, building on findings from the Vulnerability Reduction Assessments and Rapid Gender Assessments carried out by the project;

- **18,019 households, 54% women, in 80 villages** were equipped with reliable, accurate and user-friendly weather information to inform decisions on planting, crop selection, soil preparation, cultivation and harvesting;

- **Improved water access to 1,481 households** (61% women) in 37 villages through the construction of new water supply infrastructure (2 community ponds, 35 solar pump systems and 15 pump wells);

- **2,016 women empowered with leadership capacities and water infrastructure management skills**, including fee collection mechanisms for effective use of the water supply systems;

- **541 hectares of paddy fields now have access to irrigation** through the construction of three new irrigation systems, benefiting at least 248 households;

- **An Integrated Farming System (IFS) has been adopted by 3,394 households in 65 villages**. The majority of the beneficiaries now earn an average of 10 US$ per day from selling vegetables during the peak season when villagers face water shortage; and

- **88 people were trained on mainstreaming climate change into subnational planning processes**. In addition, 4 study visits with visitors from Takeo, Battambang, PreyVeng, Kratie, Svay Rieng, Banteay Meanchey provinces and Caritas were an opportunity to share experiences.

Emerging Lessons

The sociocultural context plays a critical role in successful adaptation interventions, and needs to be factored in at early stage of the project design.

Targeting beneficiaries of adaptation interventions can be a daunting task.

Adaptation interventions need to be aligned with the local calendar (e.g. growing season, migration season).

An integrated approach (providing water infrastructure, agricultural techniques and tools, and straighten the water user group) is a successful adaptation method.