Cambodia: Irrigated Agriculture Improvement Project

**Project Name**  
Irrigated Agriculture Improvement Project

**Project Number**  
51159-001

**Country**  
Cambodia

**Project Status**  
Active

**Project Type / Modality of Assistance**  
Technical Assistance

**Source of Funding / Amount**  

<table>
<thead>
<tr>
<th>Description</th>
<th>Source of Funding / Amount</th>
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<tr>
<td>TA 9349-CAM: Irrigated Agriculture Improvement Project</td>
<td>Technical Assistance Special Fund</td>
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<td></td>
<td>Project Readiness Improvement Trust Fund</td>
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<tr>
<td></td>
<td>US$ 2.00 million</td>
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**Strategic Agendas**  
Inclusive economic growth

**Drivers of Change**  
Governance and capacity development

**Sector / Subsector**  
Agriculture, natural resources and rural development - Irrigation

**Gender Equity and Mainstreaming**  
Effective gender mainstreaming

**Description**

A stand-alone investment project will be prepared which is tentatively estimated at $82.0 million with a concessional loan of $75.0 million from ADB’s ordinary capital resources loan and $7.0 million counterpart financing by the government. Impact of the project will be inclusive economic growth through agriculture and irrigation attained. Outcome will be water and agriculture productivity in the project areas enhanced. The project will deliver two outputs to achieve the desired outcome and impact including (i) Efficiency and climate resilience of irrigation systems enhanced; and (ii) Water resource management improved. The transaction technical assistance will (i) carry out the feasibility study; (ii) prepare design of the project; (iii) complete detailed engineering design of subprojects and preparing bidding documents; and (iv) undertake due diligence of technical, social, financial, environmental, gender, and economic aspects of the project. As a result, the ensuing loan will be classified as “high readiness.”

**Project Rationale and Linkage to Country/Regional Strategy**

Agriculture sector, in Cambodia, is far below its productive capacity and generates low income mainly because of lack of water availability during dry season that restricts crop diversification and cropping intensity. Nearly one-quarter of the provinces have food deficits due to low agricultural productivity, and 16.1% of the population is undernourished, even though the annual paddy surplus now stands at 3.3 million tons. Of the 3.98 million hectares (ha) of agricultural land in Cambodia, only about 1.3 million ha are within the command area of 2,730 irrigation systems. Most of these systems are either underperforming or dysfunctional due to various reasons such as (i) those irrigation systems were constructed without proper design not taking into account crop water requirements, water availability, and hydraulic considerations, and many of those did not have distribution system; and (ii) most of the systems are aged and need upgrading and remodeling that is restricted by lack of resources. As a result, water is not made available for irrigation during dry season and irrigation systems are supplementing current farming that revolves around growing wet season rice leading to cropping intensity of about 100%. Agriculture is the biggest user and utilizes about 95% of the total water consumed annually in Cambodia. The huge gap between water availability and water consumption reflects great potential for developing water resources to ensure supplies for irrigation, particularly during dry season, that can increase cropping intensity from 3.98 million ha of agricultural land from about 100% to 200%-300%. Water availability in the future is expected to have more pronounced seasonal variability, with few months of floods and long spells of drought, warranting introduction of climate-resilience in the design of subprojects. The timely availability and efficient management of water is of prime importance for enhancing agriculture productivity and crop diversification. Effective, efficient, and sustainable management of the country’s water resources largely depends upon how efficiently irrigation systems are managed.

To manage the water sector and irrigation subsector in particular with modern approaches commensurate with the present and future best practices, real-time river flow and rainfall data is an essential pre-requisite. At present, many rivers and sub-basins are not gauged. ADB and other development partners are investing on installing hydro-meteorological stations with the aim of covering all basins and rivers with automated gauging stations and using remote sensing for water accounting. It is expected that Cambodias entire water basins and rivers would be gauged in the next five years. A common platform is required to scientifically compile, analyze and disseminate the recorded data for planners, designers, decision makers, managers, and water users.

The investments by the government, with support from ADB and other development partners, have been focusing mainly on the rehabilitation of irrigation. There is need to shift the focus to integrated approach for modernizing operational management, upgrading/remodeling, and building resilience against natural disasters. There is a large gap between the available and required resources for that purpose. ADB has been providing support to the Government for both financing as well as technical guidance for sustainable management of the sector. ADB has been supporting the government in implementing institutional, policy, and legal reforms and innovations. The recent innovation introduced by ADB in Cambodia, under Uplands Irrigation and Water Resources Management Sector Project approved in 2015, is a new approach for sustainable management of irrigation systems that integrates modernizing operational management, upgrading and remodeling infrastructure, increasing irrigation efficiency, enhancing water productivity, and building climate resilience. This is a major shift from conventional investment model that focused mainly on rehabilitation of canals.

The proposed Irrigated Agriculture Improvement Project will replicate and scale up the approach and new investment model introduced under the Uplands Irrigation Project. It shall support implementation of the governments National Strategic Development Plan (NSDP) on Water Resources and Meteorology and ADBs sector strategy to enhance agricultural and rural economic productivity. The project will contribute to achieving targets defined in NSDP that is derived from the governments rectangular strategy. The strategy aims to develop and expand the country irrigated land and manage its water resources more effectively by improving existing irrigation systems, making water user communities more efficient, building capacity of the water users, and reducing the vulnerability of the Cambodias people to natural disasters. The project will also incorporate findings and recommendations of ADBs sector strategy including (i) enhancing agriculture productivity, (ii) promoting diversification, (iii) environmental sustainability and climate change, (iv) gender development, and (v) addressing institutional constraints. It shall be consistent with two of the major strategic thrusts and components of the Country Partnership Strategy 2014-2018, i.e. agriculture and physical infrastructure. It shall also conform to ADBs Water Operational Plan and Irrigation Subsector Guidance Note, 2017 that focus on increasing irrigation efficiency and water productivity; and Agriculture and Natural Resources Operational Plan that focuses on increasing agricultural productivity and improved management of natural resources.
During Project Design
The project preparation process involved extensive consultations with MOWRAM and key stakeholders.

During Project Implementation
Consultations will continue with government and key stakeholders to ensure that the design of the project is implemented in an efficient/effective manner.

Business Opportunities
Consulting Services
The Asian Development Bank will recruit the consultants as per the Project Administration Instructions. One consulting firm will be recruited by using quality- and cost-based selection method at a ratio of 90:10 based on a full technical proposal. Four experts including (i) international procurement specialist, (ii) international environment specialist, (iii) international social development/safeguards specialist; and (iv) international gender specialist will be recruited as individual consultants.

Responsible ADB Officer
Lopez, Alvin

Responsible ADB Department
Southeast Asia Department

Responsible ADB Division
Environment, Natural Resources & Agriculture Division, SERD

Executing Agencies
Ministry of Water Resources and Meteorology
364 Monivong Blvd, Khan Chamkamorn Phnom Penh, Cambodia

Timetable

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<tr>
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<th>Effectivity Date</th>
<th>Closing</th>
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<td>29 Aug 2017</td>
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Financing Plan/TA Utilization

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Project Page
https://www.adb.org/projects/51159-001/main

Request for Information
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Date Generated
17 October 2020

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