



1. Project Data

Project ID P148647	Project Name Mekong IWRM Project- Phase III	
Country Cambodia	Practice Area(Lead) Water	
L/C/TF Number(s) IDA-57770	Closing Date (Original) 01-Jun-2021	Total Project Cost (USD) 15,202,539.53
Bank Approval Date 19-May-2016	Closing Date (Actual) 31-May-2022	
	IBRD/IDA (USD)	Grants (USD)
Original Commitment	15,000,000.00	0.00
Revised Commitment	14,980,218.80	0.00
Actual	15,202,539.53	0.00

Prepared by Kishore Laxmikant Nadkarni	Reviewed by Fernando Manibog	ICR Review Coordinator Ramachandra Jammi	Group IEGSD (Unit 4)
---	--	--	--------------------------------

2. Project Objectives and Components

a. Objectives

The Project Development Objective (PDO) was "to establish the foundation for effective water resource and fisheries management in the Project areas in the northeast of the Recipient's territory." (Financing Agreement Schedule 1 dated June 9,2016 and Project Appraisal Document para. 15 dated April 20, 2016). The Recipient was the Kingdom of Cambodia.

The PDO remained unchanged during the implementation of the Project.



For the ICRR, the PDO is parsed as follows:

Objective 1: To establish the foundation for effective water resource management in the Project areas in the northeast of Cambodia.

Objective 2: To establish the foundation for effective fisheries management in the Project areas in the northeast of Cambodia.

b. Were the project objectives/key associated outcome targets revised during implementation?
No

c. Will a split evaluation be undertaken?
No

d. Components
(Reference PAD para. 18 to 26 and ICR paras. 15 and 16).

The project components at appraisal are indicated below. There were no changes to the components during project implementation.

Component 1: Fisheries and Aquatic Resources Management in Northeastern Cambodia: (estimated cost at appraisal US\$11 million; actual cost at project closing US\$10.14 million): This component aimed to improve the management of fish and aquatic resources in selected areas of the Kratie and Stung Treng provinces. It consisted of the following sub-components.

Sub-Component 1.1: Establishment of Community Fisheries Management: This was to support establishment of approximately 70 new and/or existing Community Fishery Organizations (CFIs) through formulation of CFI fishery management plans including demarcation of fishing areas and fishing conservation zones (FCZ), enforcement of fishing regulations, systematic monitoring and reporting, and evaluation of management plans.

Sub-Component 1.2: Fisheries Co-Management Infrastructure and Equipment: This was to provide infrastructure, equipment, and technical support to local, provincial, and national fishery management organizations. Activities would include (a) strengthening fishery co-management capacity at the Commune, District and Provincial levels; (b) provision of infrastructure and equipment for CFIs to implement their management plans; (c) provision of infrastructure and equipment for Provincial Fishery Administration Associations (PFiA); and (d) strengthening of FIA's capacity to monitor and assess fishery resources, and to engage in transboundary fisheries management with Laos under the framework of the Mekong IWRM Program.

Sub-Component 1.3: Enhancements of Fisher Community Livelihoods: Activities would include: (a) construction of a fish hatchery with capacity to produce roughly three million fingerlings per annum; (b) provision of small grants to CFI member households or groups to support livelihood diversification under a "Livelihood Enhancement Program"; and (c) construction of small-scale infrastructure identified in Commune Development Plans.

Sub-Component 1.4: Project Administration and Management: This was to provide the FIA and provincial



FIAs with funds for (a) office renovation, equipment, and vehicles; (b) technical support to meet minimum fiduciary/safeguard standards; and (c) incremental operating costs. The Government of Cambodia (GoC) would make in-kind contributions through the participation of government staff, and by providing office space and basic utilities.

Component 2: Water Resources Management (WRM) in Northeastern Cambodia: (estimated cost at appraisal US\$5.5 million; actual cost at project closing US\$5.09 million):

This component aimed to improve water resources management in Northeastern Cambodia in the 3S (Sekong-Sesan-Sreapak) sub-basins and the 4P (Prek Preah-Prek Krieng-Prek Kampi-Prek Te) sub-basins, and to support trans-boundary dialogue with Vietnam under the framework of the Mekong Integrated Water Resources Management Program (M-IWRMP). It consisted of the following sub-components.

Sub-Component 2.1: Strengthening Water Resource Management Institutions: This was to focus on developing the capacity of the Ministry of Water Resources and Meteorology (MOWRAM) and Provincial Departments of Water Resources and Meteorology (PDOWRAM) by providing equipment, buildings, and support for river basin committee and stakeholder education programs. The component would also finance activities related to the transboundary water management activities with Vietnam for the 2S (Sesan-Sreapak) sub-basin.

Sub-Component 2.2: Water Resources Monitoring and Management in the 3S and 4P sub-basins: This was to finance the establishment of hydrological and meteorological monitoring stations, field surveys, development of water resource models, formulation of basin profile studies, and establish water resources monitoring and assessment programs.

Sub-Component 2.3: Project Administration and Management: This was to finance specialized fiduciary consultants to support the Cambodia National Mekong Committee (CNMC) to enable successful implementation of Components 1 and 2 of the Project. The Government of Cambodia (GoC) would make in-kind contributions by seconding government staff, and by providing office space and basic utilities.

e. **Comments on Project Cost, Financing, Borrower Contribution, and Dates**

Project Cost: At appraisal, the project cost was estimated at US\$16.5 million. The actual cost at completion was US\$15.69 million. (ICR Data Sheet and Annex 3).

Financing: At appraisal, the Project was financed by an IDA grant of US\$15.0 million. At project closing, the actual amount disbursed was US\$15.20 million (ICR Data Sheet). The difference in the US\$ amounts allocated and disbursed was due to exchange rate variations between the SDR and US\$.

Borrower Contribution: At appraisal, the planned contribution from the Borrower was US\$1.50 million. The actual contribution was US\$0.49 million. (ICR Data Sheet).

Dates: The Project was approved on May 19, 2016. The planned effectiveness date was August 1, 2016, and the actual effectiveness date was August 8, 2016. The original closing date was June 1, 2021, and the actual closing date was May 31, 2022. The extension by 12 months was to allow for completion of activities delayed by the impact of the COVID pandemic in 2021-2022.

Mid-Term Review (MTR): A MTR was carried out in September 2019.



Restructurings: The Project was restructured once in April 2021 to extend the closing date from June 1, 2021, to May 31, 2022 to allow for completion of activities delayed by the impact of the COVID pandemic.

3. Relevance of Objectives

Rationale

(Reference PAD paras. 1 to 14 and ICR paras. 19 and 20).

Regional Context: At the time of appraisal, protecting the Mekong River Basin's rich ecosystem and significant socio-economic and cultural value, while exploiting its hydropower potential, was one of the key challenges facing the Mekong Countries, especially in the Lower Mekong Basin (LMB) countries of the Lao Peoples' Democratic Republic (LPDR), Cambodia and Vietnam which were highly dependent on fish catch for food security. Fisheries were identified as a key resource among LMB countries and capture fisheries were of particular importance in providing livelihoods and food security to local communities in the LMB. Rapid hydropower development was creating competing demand for water resources, and climate-change related hydrological challenges, including floods and droughts, were affecting the quality, availability and reliability of water resources. Improved forecasting of weather patterns and longer-term climate forecasting were critical requirements. Given the hydrological connectivity and significant upstream and downstream effects along the Mekong River, the governments of the LMB countries recognized that it was essential to establish greater transboundary coordination, along with leadership by national-level institutions. In 1995, the countries had entered into a Mekong Agreement on Cooperation for the Sustainable Development of the Mekong River Basin under which a Mekong River Commission (MRC) was established to foster regional dialogue and cooperation. In this context, it was assessed that it was essential to establish an effective regional framework for integrated water resources management (IWRM) that would (i) establish regional procedures for water utilization and (ii) set up hydrological models to help develop water resources investments. Capacity building in the MRC was provided under a Mekong Water Utilization Program (MWUP) supported by the World Bank and the Australian Aid Agency. This was followed in 2009 by the development of the Mekong Integrated Water Resources Management Program (MIWRMP) which was implemented in three phases - Phase 1 to cover the Laos PDR, Phase 2 Vietnam, and Phase 3 Cambodia. Phases 1 and 2 each included a regional component in addition to the respective national components. (All three phases have now been completed and the respective Implementation Completion and Results Reports- ICRs - have been prepared). (PAD paras. 1 to 9 and ICR paras. 1 to 3).

Country and Sectoral Context: At appraisal, Cambodia was among the higher performing countries in the region in terms of economic growth and poverty reduction. However, Cambodia was (and continues to be) heavily dependent on water inflows from other LMB countries. At appraisal, it received 70 percent of its water from upstream countries, mostly from the Mekong River through the Laos PDR. Upstream development, including the development of hydropower dams, heavily influenced surface water availability in Cambodia, affecting water flows, flow patterns, fisheries, and sediment transport (ICR para. 3). **Fisheries in Cambodia:** Fisheries were key for Cambodia's economic health and food security. Inland fisheries accounted for about 8 to 10 percent of the country's Gross Domestic Product (GDP) and provided a means for the rural poor to generate additional income in case of agricultural failures. However, hydropower dam construction, overexploitation of fish resources arising from ineffective management and lack of alternative



livelihoods, critical fish habitat degradation, and climate change were threatening the sustainability of natural fisheries in the LMB. Prior to 2000, the fisheries sector in Cambodia was dominated by relatively large-scale private fishers who had been allotted fishing licenses to operate in designated fishing lots. However, the experience was that, driven by the profit motive, this led to over-exploitation and non-sustainable use of fish resources. Thereafter, Cambodia's fisheries governance has been shifting towards a fisheries co-management approach which was regarded as more effective and equitable than traditional government management. This approach involves Community Fisheries Organizations (CFIs) sharing management roles with the government through the Ministry of Agriculture, Forestry, and Fisheries (MAFF). To help promote and implement this approach, the GoC introduced various legislation and regulations including a 2006 Fisheries Law and a 2007 Sub-Decree on Community Fisheries Management. To help accelerate the establishment of community-based fisheries co-management through CFIs, the GoC revoked the concession of inland fisheries licenses to the private sector which had been exploiting Cambodia's fish resources in an unsustainable manner. However, despite these measures, at the time of appraisal, Cambodia still lacked the foundations of effective fisheries management, including adequate monitoring, analysis, and management of its fishery stocks, and adequate management capacity at the community level. Limited integration of women in the sector constrained their ability to contribute to improving the development of fisheries (ICR paras. 4 and 5). Water Resource Management (WRM) in Cambodia: At appraisal, key elements in the framework for WRM in Cambodia included (i) the Cambodia National Water Resources Policy (2004) which sets out a range of water management strategies; (ii) the Law on Water Resources Management (2007) which includes provisions for water resources management, development, and protection; (iii) a Sub-Decree on River Basin Management (2015) that requires the establishment of a National River Basin Committee (NRBC), sub-national RBCs, and corresponding River Basin Plans. Sub-Decrees on water quality and water licensing had been drafted and were under consideration. The Ministry of Water Resources and Meteorology (MOWRAM) was in charge of WRM, managing river basins, sub-basins, water-shed run-off, groundwater and aquifers, in collaboration with the Provincial Departments for Water Resources and Meteorology Management (PDWRAMs). However, the MOWRAM and PDWRAMs faced low levels of capacity and inadequate access to information on water resources due to the poor state of the water resources monitoring and assessment systems. The Cambodia National Mekong Committee (CNMC), which reports to MOWRAM, plays a central role in coordinating activities for the implementation of the Mekong Agreement and the overall management of water resources along the Mekong River, but its capacity was also constrained by the lack of adequate monitoring systems (ICR para. 6). Transboundary Water Management: The GoC identified the northeastern region of Cambodia spanning the 3S and 4P sub-basins (referred to as Upper Mekong) to pilot establishment of WRM principles as per the 1995 Mekong Agreement. These are among the most important tributaries of the Mekong, contributing together to about 20 percent of the total discharge and also contain rich fishing grounds (ICR para. 7). The transboundary Action Plan under the Project deals with the exchange of data under a Joint Action Plan with Vietnam (ICR para. 9).

In summary, at appraisal in 2016, while significant progress had been made in improving WRM and fisheries operations in Cambodia, there was need to strengthen further the institutional capacity both in the government (national and provincial) and in community-based organizations by improving regulations and procedures, modernizing/upgrading infrastructure and equipment, and providing relevant training so as to establish a reliable foundation for sector development in the future. The Project aimed to provide the necessary support and resources towards this end.

Alignment with National Priorities: The Project Development Objective (PDO) was aligned with the national priorities prevailing at the time of appraisal and remains aligned with the currently prevailing national priorities. The PDO is well aligned with (i) the GoC's National Strategic Irrigation and Water



Resources Management Investment Program 2019-2033 which lays out the long-term vision and plan for IWRM and sustainable irrigation services; (ii) National Strategic Plan for Aquaculture Development in Cambodia 2016-2030 which aims to build a more sustainable and profitable aquaculture industry; and (iii) the National Environment Strategy and Action Plan 2016-2023, particularly Strategic Objectives 3 and 4 targeting modernization of the management and conservation of environment and natural resources. The PDO is also aligned with the GoC's National Sustainable Development Plan 2019-2030 supporting the implementation of the Plan's Rectangular Strategy Phase IV (RS4) on growth, employment, equity, and efficiency (ICR para. 20).

Alignment with Country Assistance Strategy/Country Partnership Framework: The PDO was well aligned with the priorities in the World Bank Group (WBG) Country Partnership Frameworks (CPFs) at the time of appraisal and under the current CPF for FY2019-2024. At appraisal, the Project was aligned with the World Bank's East Asia and Pacific Regional Strategy (2016) particularly the strategic pillars of inclusion and empowerment; governance and institutions; and climate change and disaster risk management. The Project was also one of the priority projects in the World Bank Cambodia Country Engagement Note (2016-2017). (ICR para. 10). In the CPF for FY2019-2024, under Focus Area 3, Objective 7 "strengthening management of water and land use", the CPF highlights that WBG support would focus on developing WRM models and identifies the Mekong River as the key area for Cambodia's future. The CPF also details the importance of fisheries for the lives and livelihoods of the Cambodian population. The PDO, which emphasizes effective management, is well aligned with the CPF's cross-cutting theme of "Strengthening Governance, Institutions, and Citizen Engagement". (ICR para. 19).

Prior Bank Experience: The World Bank (WB) has been engaged for several years in supporting LMB countries in planning and institutional capacity creation for carrying out WRM activities in the Mekong River Basin. In 1999, through the Global Environmental Facility (GEF), it financed the Water Utilization Project (WUP) which, supported capacity building and strengthening in the MRC to undertake its responsibilities in regard to IWRM in the Mekong Basin. In 2006, the WB, together with the Asian Development Bank (ADB), supported the preparation of a Mekong Water Resources Assistance Strategy (MWRAS) for the LMB. Following this, the WB was engaged with the LMB country governments in policy dialogue on WRM issues in the LMB. In 2009, with GEF financing, the WB supported a Mekong Water Utilization Project (MWUP) which provided technical assistance for institutional capacity building particularly in the MRC. Starting 2012, under the Mekong Integrated Water Resources Management Program, the WB supported the development and implementation of a series of phased interrelated projects in the Laos PDR (Phase 1); Vietnam (Phase 2); and Cambodia (Phase 3 - the Project being reviewed). (ICR para. 8).

Relevance of Project Development Objectives: Given the context described above, the PDO was consistent, and remains consistent, with the priorities in Cambodia's national programs and the WBG Country Partnership Frameworks. The PDO recognized that, to achieve sustainable improvements in WRM and fisheries activities in Cambodia, it was essential to strengthen further the foundations for achieving such improvements through capacity building and strengthening of the key institutions at the national and provincial government levels and in the community-based organizations in the sectors concerned (fisheries and water resources). The areas targeted for support (river basins in northeastern Cambodia) were appropriately selected given their importance in water flows and fisheries management in Cambodia.

Rating

High



4. Achievement of Objectives (Efficacy)

OBJECTIVE 1

Objective

To establish the foundation for effective water resource management in the Project areas in the northeast of Cambodia.

Rationale

Theory of Change: The ICR provides a diagrammatic presentation of the theory of change (TOC). To achieve effective WRM in Cambodia, it was essential to strengthen the institutional capacity in the concerned national and provincial level agencies through establishment of improved regulations and procedures; modernizing/upgrading of the required infrastructure and equipment; and provision of relevant training to the concerned staff. The Project would provide inputs through financing of technical assistance, equipment and facilities, and training of staff. These inputs would enable the development and implementation of key outputs required for improved WRM including: (i) establishment of decision support systems including water models; (ii) preparation of water assessments and basin profiles; (iii) training of MOWRAM and PDWRAM staff in use of the modernized/upgraded systems; (iv) construction of hydrological and meteorological (hydromet) stations in the targeted river sub-basins; (v) establishment of River Basin Committees in the targeted river sub-basins; and (v) carrying out of training and workshops for the concerned stakeholders, including for facilitating transboundary dialogue with Vietnam. The outcome would be establishment of the foundations for effective WRM in the northeast of Cambodia including through (i) functioning Water Models to improve water resources planning and management and (ii) exchange of relevant of water resources data between Cambodia and Vietnam. The longer-term outcomes would be improved and sustainable IWRM in the LMB through (i) implementation of Water Resources and Fisheries Management Plans and enforcement of relevant regulations and (ii) reliable data exchange among the LMB countries for effective regional planning and development.

The causal links and full results chain in the TOC in regard to Objective 1 were adequate. The PDO Indicators and Intermediate Results Indicators (IRIs) adopted were generally relevant, measurable, and appropriate for assessing the achievement of the objective.

Key assumptions underlying the results chain were that: (i) the national and provincial level government agencies concerned would internalize the enhanced planning, operating, and monitoring requirements and (ii) the agencies would receive timely and adequate financial and technical support to be able to carry out their functions effectively and efficiently.

Outputs and Intermediate Results Indicators (IRIs): (ICR Annex 1 - Results Framework and paras. 21 to 25).

Key outputs included the following:

- Decision Support System (DSS) with water models developed for the seven sub-basins (3S and 4P).
- Water Assessments and River Basin Profiles reports generated for the 3S and 4P sub-basins.



- 28 hydromet stations constructed or upgraded in the 3S and 4P sub-basins for production of near-real-time data.
- Staff at MOWRAM, PDWRAMs, and CNGC, trained in the use and operations & maintenance (O&M) of the DSS, hydromet stations, and WRM planning and monitoring.
- Sub-national River Basin Committees established in the 3S and 4P sub-basins.
- 23 workshops conducted to enhance transboundary dialogue with Vietnam.

Results were measured by four IRIs the targets for which were achieved as follows:

IRI 1-1: Number of sub-national river basin committees established in the 3S and 4P sub-basins per Government of Cambodia regulations: (target 2; actual 0; target not achieved). The Project supported the groundwork necessary for the formal establishment of the river basin committees (RBCs) including: (i) preparation of Guidance Papers and terms of reference; (ii) analytics for formulating plans, river basin profiles, and water resource assessments; (iii) multi-stakeholder consultations; and (iv) training and raising awareness of stakeholders. However, while the preparatory work required for the establishment of the RBCs had been completed by project closing and the official requests for the establishment of the RBCs were prepared, they had not as yet been approved at the time of preparation of the ICR. (ICR para. 24). Through consultations with the principal stakeholders, guidelines and operational manuals were prepared, and training provided, to the CFIs and to the government agencies (FiA and provincial FiAs) for undertaking the planning, implementation, and monitoring of fisheries management activities. The Project Team informed IEG that the delay in the formal approval of the RBCs did not significantly impact achievement of the PDO because the planned activities had been carried out even without the formal establishment of the RBCs. The establishment of the RBCs is now being pursued under the successor Cambodia Water Security Improvement Project (P176615) as a part of river basin management activities to be completed by mid-2024.

IRI 1-2: River basin stakeholders trained in water resources management processes and benefits: (target 8 workshops; actual 23 workshops; target exceeded). A series of consultation meetings and workshops were organized at the national and provincial levels with participation from local authorities and stakeholders in Cambodia and Vietnam. The workshops helped in building understanding and increasing awareness of the stakeholders on data sharing required to support transboundary WRM. (ICR para. 23).

IRI 1-3: Number of river basin profiles updated in the 3S and 4P sub-basins: (target 7; actual 7; target achieved). The planned updating of the targeted seven river basin profiles was completed with the help of the data generated from the relevant water models developed under the Project. (ICR para. 22). The updated profiles are being used to improve WRM in the sub-basins.

IRI 1-4: Number of hydro-meteorological (hydromet) monitoring stations newly established or improved and functioning in the 3S and 4P sub-basins: (target 25; actual 28; target exceeded). The new/upgraded hydromet monitoring stations provide essential data in regard to rainfall, water level, flow rate, and water quality parameters that can feed directly into the Decision Support System (DSS) established with support from the Project.

PDO Indicators: (ICR Annex 1 - Results Framework and paras. 21 to 25).

PDOI 1-1: 3S/4P sub-basins with functional water resources management models developed: (target 4; actual 7; target exceeded). A functional model was defined as having the following components: (i) water balance model that takes into account water demands; (ii) rainfall run-off; (iii) 1D hydraulic models indicating



water depth; and (iv) routine collection of water resource information to ensure accuracy. The WRM models, and the hydromet network and stations, were a key part of the overall Decision Support System (DSS) set up under the Project. The DSS enables the use of near real-time data on water use and water availability, and to understand the implications of climate change on water resources at the basin level.

PDOI 1-2: Exchange of WRM data between Vietnam and Cambodia as a result of transboundary cooperation: (target - yes; actual - partially achieved). Building on the Joint Action Plan developed under the Laos PDR Mekong IWRM Project (Phase 1 of the overall Program), terms of reference (TORs) were developed for the establishment of the Joint Water Resources Expert Group (JWREG), which will be responsible for developing procedures for data and information sharing to support day to day management of water resources in the 2S (Sesan-Srepak) sub-basins. The Project Team informed IEG that, while the necessary groundwork for implementation of WRM data sharing has been completed on the Cambodia side, the JWREG has not yet been established and made operational mainly due to financial constraints. Both countries have reached a bi-national agreement to jointly finalize these TORs and have reaffirmed their commitment to cooperate in the management of the shared water resources. The establishment of the JWREG and implementation of WRM data sharing is being pursued under the World Bank financed successor Cambodia Water Security Improvement Project.

Outcomes:

The Project substantially achieved the objective of establishing the foundation for effective water resource management in the Project areas in northeastern Cambodia. Institutional capacity in the key government agencies at the national and provincial levels was significantly strengthened through the technical assistance and new or upgraded infrastructure/equipment provided under the Project. The target for the PDO indicator regarding establishment of functioning water resources management models was substantially exceeded. As a result, the capacity for water resource planning and management in the targeted 3S and 4P sub-basins was enhanced. The GoC has been utilizing the DSS and the water models to estimate the availability of water in the basins and to evaluate the impacts of various climate change and development scenarios on water resources. The data generated from the models was used in the preparation of 3S and 4P Water Assessment Reports and River Basin Profiles. The data are also being used to improve WRM at a national and sub-national level for flood forecasting and disaster risk management. However, despite the completion of the required preparatory work for the establishment of RBCs for the 3S and 4P sub-basins, the targeted establishment of the RBCs was delayed and not achieved by project closing (it is now expected to be achieved by mid-2024 under the successor Cambodia Water Security Improvement Project). With regard to the PDO indicator on transboundary cooperation and exchange of WRM data between Cambodia and Vietnam, substantial preparatory work was completed in facilitating the exchange and use of data, including preparation of guidelines and procedures; multi-stakeholder meetings; and reaching agreement on JWREG, the agency that would oversee the implementation. However, the agency itself has not yet been established, and this limited the extent of WRM data sharing to the planned extent. Consequently, the target for this indicator was partially achieved. (Establishment of the JWREG and implementation of WRM data sharing is being pursued under the successor Cambodia Water Security Improvement Project).

Overall, the efficacy in regard to Objective 1 is rated as Substantial with some shortcomings.

Rating



Substantial

OBJECTIVE 2

Objective

To establish the foundation for effective fisheries management in the Project areas in the northeast of Cambodia.

Rationale

Theory of Change: The ICR provides a diagrammatic theory of change (TOC). Fisheries are of key importance in Cambodia and a major source of food security and livelihoods of the population, particularly in the targeted 3S and 4P sub-basins. However, ineffective governing regulations and fishery management practices were contributing to over-exploitation of the natural fish resources, which were also adversely impacted by degradation of natural fish habitats. The TOC was that, to help the GoC address these detrimental issues, the Project would provide inputs for financing of technical assistance; modernization/upgrading of infrastructure and equipment; and support for enhancement of livelihoods of the persons members who would be adversely affected by the required changes. The resulting outputs would include: (i) guidelines for the establishment and strengthening of Community Fisheries Organizations (CFis); (ii) strengthening of the co-management of fisheries; (iii) technical support for establishment and operation of CFis; (iv) provision of support to the affected population for diversification and enhancement of livelihoods; (v) training for the CFis and provincial government agencies; and (v) establishment of a hatchery center for promotion of aquaculture practices and research on indigenous fisheries. The outcome would be establishment of an effective foundation for fisheries management in the Project areas in the northeast of Cambodia including (i) establishment of fully functioning CFis and (ii) CFI members following regulations on sustainable fisheries management, including alternative livelihood practices. The longer-term outcomes would be the implementation of sustainable Fisheries Management Plans and enforcement of required regulations utilizing the capacity and foundations built through the Project. These would contribute to integrated and sustainable water resources and fisheries management in the LMB.

The causal links and full results chain in the TOC in regard to Objective 2 were adequate. The PDO Indicators and Intermediate Results Indicators (IRIs) adopted were generally relevant, measurable, and appropriate for assessing the achievement of the objective.

Key assumptions underlying the results chain were that: (i) the national and provincial level government agencies concerned and the CFis would internalize the enhanced planning, operating, and monitoring requirements and (ii) the agencies would receive timely and adequate financial and technical support to be able to carry out their functions effectively and efficiently.

Outputs and Intermediate Results Indicators: (ICR Annex 1 - Results Framework and paras. 26 to 30).

Key outputs included the following:

- Guidelines developed for establishment and strengthening of CFis; co-management of fisheries; support for livelihood enhancement; protocol for fish monitoring.
- Training provided to provincial government stakeholders and CFis.
- Technical support provided for establishment and operation of CFis.
- Grants provided to CFI members for undertaking activities to diversify livelihood practices.



- Hatchery Center built for promotion of aquaculture practices and research on indigenous fisheries.

Results were measured by six IRIs the targets for which were achieved as follows:

IRI 2-1: Number of CFIs with approved management plans: (target 60; actual 70; target exceeded). The Project established 70 fully functioning CFIs for fisheries management in the provinces of Kratie and Stung Treng. For the CFIs to be considered fully functional, they had to meet a set of criteria defined by the Project including: (i) CFI officially recognized and registered as specified under Cambodian law; (ii) CFI management plan to be approved by the Fisheries Administration of Cambodia (FiA); (iii) boundaries of area under the CFI's responsibility are physically demarcated; (iv) CFI budgeted and staffed according to the plan; and (v) fishing regulations enforced for the CFI management plans. Through consultations with the principal stakeholders, guidelines and operational manuals were prepared, and training provided, to the CFIs and to the government agencies (FiA and provincial FiAs) for undertaking the planning, implementation, and monitoring of fisheries management activities. Community Fisheries Committees (CFCs) were established to oversee the CFIs fisheries management activities. (ICR para. 27).

IRI 2-2: Number of citizens involved in planning/implementation/evaluation of development programs through participation in partially or fully functional CFIs: (target 100; actual 588; target substantially exceeded). The extent of citizens' participation exceeded expectations and is reflected in the target being substantially exceeded. (ICR para. 27).

IRI 2-3: Number of approved CFI Fisheries Management Plans with approved Gender Action Plans: (target 50; actual 70; target substantially exceeded). The Project succeeded in establishing 70 fully functioning CFIs, each with an approved CFI Fisheries Management Plan, thereby substantially exceeding the planned target. (ICR para. 27).

IRI 2-4: Standard indicators and methodology to monitor fisheries management performance is designed by the Inland Fisheries Research and Development Institute: (target - yes; actual - yes; target achieved). Guidelines and methodology were established under the Project for a transparent method to evaluate the functionality of CFIs; responsibilities and operation of Community Fisheries Committees (CFCs); and development of a self-monitoring approach tailored to project area conditions. (ICR para. 27).

IRI 2-5: Operation of hatchery in the Project area: (target - yes; actual - yes; target achieved). The Project financed the construction and operation of a hatchery to promote aquaculture activities as alternative means of income generation and livelihood support. A hatchery with a designed capacity of 3 million fingerlings was built in Stung Treng. The hatchery sells fingerlings to local farmers as part of its revenue generation; provides technical support on aquaculture; and serves as a research center. The hatchery became operational in August 2022 and is the first of its kind in Cambodia. (ICR para. 30).

IRI 2-6: Eligibility criteria and disbursement mechanisms for livelihood enhancement packages (LEP) are developed and agreed: (target - yes; actual - yes; target achieved). With the objective of reducing overfishing, the Project provided grants to help fishers find alternative activities for income generation. The Project transferred funds to 3,439 households (with an average of about US\$295 equivalent per household) across the 70 CFIs, prioritizing poor, female-headed, ethnic and minority households. The grants were used by the CFI households for construction of infrastructure or purchase of equipment for aquaculture, agricultural production, vegetable crop production, and poultry/livestock raising. Based on surveys, while the share of fishing in household incomes decreased over a period of five years from 32 percent to 25 percent, it



was compensated by the increase in incomes from livestock raising from 19 percent to 27 percent. (ICR para. 29).

PDO Indicators: (ICR Annex1 - Results Framework and paras. 26 to 30).

PDOI 2-1: Number of direct project beneficiaries from the fisheries component of which female (%): (target 25,000; 50%; actual 35,448; 51%; target exceeded). The number of beneficiaries exceeded the target as the actual number of functioning CFIs supported under the Project substantially exceeded the planned target (IRI 2-1).

PDO 2-2: Number of fully functioning CFIs: (target 50; actual 70; target substantially exceeded). Achievement of this target was discussed under IRI 2-1 above.

Outcomes:

The Project achieved its objective of establishing a foundation for effective fisheries management in the Project areas in the northeast of Cambodia. The targets set under the underlying IRIs contributing to the achievement of the objective were achieved or exceeded as discussed above. Targets for the two PDO indicators were exceeded. The establishment of fully functional CFIs and the strengthening of institutional capacity in the FiA and provincial FiAs are key elements in providing a foundation for effective fisheries management in the Project areas.

Rating
High

OVERALL EFFICACY

Rationale

As discussed above in Section 4,

(i) The efficacy of Objective 1 (to establish the foundation for effective water resources management) is rated Substantial with some shortcomings as the target under the first PDO indicator (in regard to fully developed WRM models) was achieved while the target under the second PDO indicator (in regard to transboundary exchange of WRM data) was only partially achieved. Targets for most of the underlying Intermediate Results Indicators were achieved or exceeded.

(ii) The efficacy of Objective 2 (to establish the foundation for effective fisheries management) is rated High since targets for both the PDO indicators (number of direct beneficiaries and fully functioning CFIs) were substantially exceeded. Targets for the underlying Intermediate Results Indicators were achieved or exceeded.



Based on the above, the overall efficacy is rated Substantial.

Overall Efficacy Rating

Substantial

5. Efficiency

(Reference ICR paras. 32 to 34 and Annex 4, PAD Annex 5).

Economic Efficiency

Appraisal Estimates: The economic analysis at appraisal was carried out using a qualitative assessment of benefits except for the hatchery sub-component (equivalent to about 12 percent of the project cost) for which a cost-benefit analysis was performed with the Economic Internal Rate of Return (EIRR) and Economic Net Present Value (ENPV) as the indicators. For the hatchery, the estimates were an EIRR of 17 percent and an ENPV (at a 5 percent discount rate) of US\$0.31 million. (ICR paras. 32 and 33).

Post-Completion Estimates: The post-completion analysis includes a cost-effectiveness assessment for the Project components other than the hatchery for which a cost-benefit assessment was carried out. The cost-effectiveness assessment compares the actual cost of each component with that estimated at appraisal. The cost-effectiveness ratios (actual cost/appraised cost) for each sub-component (SC) are indicated below:

Post-Completion Cost-Effectiveness Estimates

Component/Sub-Component	Cost-Effectiveness Ratio (%)
C.1 Fisheries and Aquatic Resources Management	94.1%
SC1.1 Establishment of Community Fisheries Management	67.7%
SC1.2 Fisheries Co-Management Infrastructure and Equipment	65.0%
SC1.3 Enhancements of Fisher Community Livelihoods	121.0%
SC1.4 Project Administration and Management	104%
C2. Water Resources Management	97.0%
SC2.1 Strengthening Water Resources Management Institutions	53.7%
SC2.2 Water Resources Monitoring and Management	106.2%
SC2.3 Project Administration and Management	143.5%
Total Project	95.0%
Hatchery Sub-Component	



Cost at appraisal US\$0.33 million	Cost at completion US\$1.88 million
EIRR at appraisal 17%	EIRR at completion 7%
ENPV at appraisal US\$0.31 million	ENPV at completion US\$0.28 million

Comparing the actual cost at completion with that estimated at appraisal, the overall cost-effectiveness for the Project was 95%, indicating that actual project costs were slightly lower than estimated at appraisal. A more appropriate basis for assessment of cost-effectiveness would have been benchmark comparisons with comparators from selected projects in other countries. However, constrained by data limitations in regard to inter-country comparisons, the ICR provides limited data. For hydromet stations, an important constituent in project cost, the ICR indicates (para. 33) that the unit cost in Cambodia was about US\$0.18 million, similar to that in Vietnam, and lower than that in the Laos PDR (US\$0.20 million).

For the hatchery sub-component (accounting for about 12 percent of the total project cost), the post-completion estimates were EIRR of 7 percent and ENPV of US\$0.28 million compared to the appraisal estimates of 17 percent and US\$0.31 million. The significantly lower economic viability indicators at completion were due to a substantial increase in the cost (US\$1.88 million compared to US\$0.33 million at appraisal). Despite being significantly lower than the estimate at appraisal, the post-completion EIRR of 7 percent remains within the range of 6 percent to 8 percent prescribed under the World Bank guidelines for discount rates applied in the economic assessment of investment projects.

Rating: Based on the foregoing, the project's economic efficiency is rated Substantial on the margin.

Implementation Efficiency

Project Cost: The Project was implemented within the cost estimated at appraisal. Against the estimated project cost of US\$16.50 million, the actual cost at project completion was US\$15.69 million (ICR Data Sheet and Annex 3).

Project Duration: The implementation period estimated at appraisal was 68 months (5.7 years). The actual implementation period was 80 months (6.7 years) reflecting an extension of 12 months approved in 2021 to allow completion of activities impacted by the COVID 19 pandemic.

Rating: Based on the foregoing, the project's implementation efficiency is rated Substantial.

Efficiency Rating

Substantial

a. If available, enter the Economic Rate of Return (ERR) and/or Financial Rate of Return (FRR) at appraisal and the re-estimated value at evaluation:

Rate Available?	Point value (%)	*Coverage/Scope (%)
-----------------	-----------------	---------------------



Appraisal	0	0 <input type="checkbox"/> Not Applicable
ICR Estimate	0	0 <input type="checkbox"/> Not Applicable

* Refers to percent of total project cost for which ERR/FRR was calculated.

6. Outcome

The Project's outcome is rated on the basis of (i) Relevance, (ii) Efficacy, and (iii) Efficiency.

As discussed in Section 3, the Relevance of Objectives is rated High.

As discussed in Section 4, the Project's Efficacy is rated Substantial.

As discussed in Section 5, the Project's Efficiency is rated Substantial.

Based on the above, the Project's Outcome is rated Satisfactory.

a. Outcome Rating

Satisfactory

7. Risk to Development Outcome

Technical Risks: These are rated Moderate. While the hydromet stations in Cambodia have been provided upgraded systems for timely and reliable weather forecasting, efficient maintenance and operations of these systems will require timely and adequate funding to be provided to the agencies operating these systems. The funding for these activities is provided through the government's budgetary resources. While the funding has been adequate during project implementation, there is a risk that shortage of budgetary funds in future could lead to shortfalls in the required financing which could adversely affect the technical efficiency of operations.

Financial Risks: These are rated Moderate. For sustaining the gains made under the Project, the institutions and agencies (MOWRAM, PDWRAMs, CNBC, FiA, PFiAs, CFIs) responsible for implementing essential policies and facilities will need adequate resources, financial and technical support, to carry out their functions effectively. For the government agencies, there is a risk that the degree of required support could be influenced by changing political and fiscal circumstances. For the beneficiaries' agencies (CFIs, CFCs), there is a risk that the degree of members' commitment and support could diminish unless positive results and benefits can be maintained over time.

Institutional Risks: These are rated Moderate. Continued commitment from the key institutions and agencies will be required for sustaining the capacity and will to carry out their functions effectively. There is a risk that their ability to do so may be constrained by uncertainty and delays in obtaining the required financial and technical resources.



Transboundary Agreement Implementation Risks: These are rated Moderate. Although plans and agreements have been established between Cambodia and Vietnam for transboundary cooperation and exchange of WRM related data, the implementation agency has not yet been set up. For implementation of the WRM data exchange plans, the implementing agency would need to be established and equipped with the necessary facilities, equipment, and systems. There is a risk that the establishment of the agency could be further delayed.

8. Assessment of Bank Performance

a. Quality-at-Entry

(Reference ICR paras. 70 to 73).

The Project represented Phase 3 of the Mekong Integrated Water Resources Management Program. Project preparation benefited from the Bank's experience gained from the earlier projects in the Program (Phase 1 - Lao PDR and Phase 2 - Vietnam). The strategic relevance was well-aligned, and continues to be well-aligned, with the priorities in the jointly agreed regional Mekong Program, the national programs of Cambodia, and the WBG's Country Partnership Frameworks (CPFs) for Cambodia. The project design was built on an adequate theory of change. The PDO was generally clear, achievable, and consistent with the national development agenda and the WBG's CPF for FY2019-2023. However, as acknowledged in the ICR (para. 75), the PDO indicator "Exchange of WRM data between Vietnam and Cambodia as a result of transboundary cooperation" added risk to the Project given that it was partially contingent on actions from another country. This resulted in a partial achievement of this indicator. In regard to assignment of responsibilities and arrangements for project implementation, there were some shortcomings. The ICR (para. 72) acknowledges that further clarification of responsibilities between the implementing agencies was needed to simplify reporting considering that two of the key implementing agencies, FiA and CNMC, were overseen by different ministries, and that greater effort in understanding internal coordination between MOWRAM and its technical teams would have helped strengthen inter-agency collaboration from the outset of the Project. The ICR (para. 71) also acknowledges that the implementing agencies were not sufficiently familiar with the Bank's procurement procedures and could have benefited from additional training in the preparation phase. Safeguard aspects (Environmental and Social) were well covered and required assessments carried out in time. Fiduciary assessments and arrangements were adequately designed. Gender considerations were incorporated in project preparation and implementation. M&E design, including the theory of change and the Results Framework, was generally adequate to assess the achievement of objectives. While the risk assessment and proposed mitigation measures were generally adequate, the ICR (para. 71) acknowledges that the risk related to inter-agency collaboration could have been recognized as substantial and appropriate mitigation measures should have been put in place.

Quality-at-Entry Rating
Moderately Satisfactory



b. Quality of supervision

(Reference ICR paras. 74 to 77).

Overall, the World Bank's team worked proactively with the counterparts to anticipate and resolve issues affecting implementation progress. This included working with the implementing agencies at the various levels (national, provincial, and community) to better define the respective responsibilities and modes of inter-agency collaboration. A Mid-Term Review (MTR) was carried out in a timely manner in September 2019, and necessary actions and action plans were identified and agreed with the counterparts. Capacity building and hands-on support were provided to the implementing agencies, including through specialized consultants and organizing of workshops. The Project's task team was based in Cambodia, and this facilitated interaction with the counterparts and the provision of timely and hands-on support. During the implementation period of 6.7 years, the Project team carried out a total of 15 implementation support missions, averaging about two missions per year. The team had three Task Team Leaders (TTLs) over the project's duration. The Bank teams were adequately staffed with technical, safeguards and fiduciary specialists, and employed specialized consultants as needed. Back-to-Office reporting was generally candid, and the Implementation Status and Results Reports (ISRs) were filed in a timely manner.

Rating of Overall Bank Performance: While quality-at-entry is rated Moderately Satisfactory, quality of supervision is rated Satisfactory. The Bank's supervision team contributed to the successful implementation of the Project within the originally estimated project cost and schedule. The extension of the closing date by 12 months was due to the impact of the COVID 19 pandemic on project implementation and not within the control of the team. Based on these considerations, overall Bank performance is rated Satisfactory.

Quality of Supervision Rating

Satisfactory

Overall Bank Performance Rating

Satisfactory

9. M&E Design, Implementation, & Utilization

a. M&E Design

(Reference ICR paras. 50 and 51).

Although not articulated in the PAD, the theory of change (TOC) and results chain (as inferred in the ICR) were generally clear and well-covered in the Project's M&E system. As designed, the Project's Monitoring and Evaluation (M&E) system included specific M&E procedures and detailed arrangements for data collection, monitoring and reporting. The Results Monitoring Framework (RMF) included four PDO indicators and 10 Intermediate Results Indicators (IRIs) to track implementation progress. The links between the project activities and the PDO/IR indicators were generally clear with some shortcomings. As acknowledged in the ICR (para. 50), one PDO indicator (exchange of WRM data between Vietnam and Cambodia) went beyond the scope of the Project since the full achievement of the indicator required



implementation not only by Cambodia but also by Vietnam and was clearly beyond the purview of a single country (Cambodia). This resulted in a partial achievement of this indicator. In addition, during implementation, the M&E responsibilities had to be revised and left to the respective Component Management Units (CMUs) for each component.

b. M&E Implementation

(Reference ICR paras. 52, 53 and 55).

During implementation, M&E responsibilities were better clarified and re-assigned to the respective CMUs for the two components, including under the MTR carried out in September 2019. For Component 1 (Fisheries Management), a consultant was hired to further develop the M&E framework and to carry out the actual M&E work in collaboration with the Provincial FiAs and the FiA. Baseline analysis was carried out. Regular progress reports were submitted, including an assessment of whether the supported CFIs were fully functioning or required further action. The reports included an assessment of outcomes and benefits realized under the component. The CMU and Project Implementation Teams (PITs) conducted monthly monitoring of the project activities with the CFIs to check on implementation progress. Workshops were organized as needed. In terms of supplemental indicators, benefits in terms of household incomes were integrated into the impact assessment of the livelihood enhancement support activities. Based on data from the fish catchers, an assessment was carried out in regard to the status of fish resources in the Project area. For Component 2, annual progress reports and consultants' reports were submitted by the concerned CMU.

c. M&E Utilization

(Reference ICR para. 54 and 55).

The M&E data and reports were used to monitor implementation progress, identify bottlenecks, facilitate decision-making, and recommend proactive actions where needed. Key stakeholders were kept informed as to progress and necessary actions, if any, required from them.

Rating: Overall, M&E quality is rated as Substantial with some shortcomings.

M&E Quality Rating

Substantial

10. Other Issues

a. Safeguards

(Reference ICR paras. 57 to 69).



Environmental and Social Safeguards

At appraisal, the Project was classified as Category B - Partial Assessment. The policies triggered were: Environmental Assessment (EA) - OP 4.01; Natural Habitats (NH) - OP 4.04; Physical Cultural Resources (PCR) - OP 4.11; Indigenous Peoples (IP) - OP 4.10; Involuntary Resettlement (IR) - OP 4.12; and Projects on International Waterways (PIW) - OP 7.50.

The ICR reports (para. 57) that the Project's environmental and social performance was rated Satisfactory throughout the implementation period except for a temporary downgrade of the ratings for environmental performance, natural habitats, and physical cultural resources. The reasons for the downgrades were (i) delays in mobilizing an environmental safeguards consultant for Component 1 (Fisheries Management) and (ii) changes in the location of the new PDWRAM office in Stung Treng without proper notification to the Bank, and no safeguards screening and reporting. However, the ICR confirms (para. 57) that all these ratings were upgraded to Satisfactory at the MTR stage in September 2019 and the Project complied with all the safeguards requirements.

Environmental Assessment (OP 4.01): The Project triggered OP 4.01 as it involved small-scale construction works and the discharge of organic sludge and wastewater from the hatchery operation. The project activities did not create any significant environmental and social impacts on the local environment or local population. Required safeguards instruments, including an Environment and Social Management Framework (ESMF), Hatchery Environmental Management Plan (HEMP), and Environmental Code of Practice (CP), were prepared and disclosed. The ICR confirms (para. 58) that the Project was implemented in compliance with the operational policy as a whole

Natural Habitats (OP 4.04): The Project area covered a Ramsar site located in the Stung Treng province. Twenty-one of the fishing villages supported by the Project are located in the Ramsar site. The location of the hatchery is outside the Ramsar site. During the implementation of the Project, the National Steering Committee (NSC), which oversaw the implementation of the Project, ensured compliance with the Ramsar Site Management Plan. (ICR para. 60).

Project on International Waterways (OP 7.50): The Mekong River is an international waterway, but the Project's investments did not alter the quantity or quality of the water flow in the river. Therefore, it was determined that no riparian notification was required as the Project's activities fell under exceptions provided under the policy. (ICR para. 59).

Physical Cultural Resources (OP 4.11): The hatchery subproject was the only identified works contract that required significant excavation and earth works. An EMP was developed during appraisal. All civil works were completed safely and in compliance with World Bank policy. (ICR para. 61).

Indigenous Peoples (OP 4.10): An Indigenous Peoples Planning Framework (IPPF) was developed to ensure adequate consultation with and participation by the local population during the planning and implementation of the Project. The IPPF together with the ESMF and RPF were presented to the concerned minority groups and disclosed at the concerned provincial government office. During implementation, the IPPF was applied to ensure that ethnic minority people received socioeconomic benefits that were culturally appropriate. (ICR para. 62).

Involuntary Resettlement (OP 4.12): The Project complied with the Cambodian legal regulations and the World Bank's OP 4.12. The Project involved minor land acquisition for small-scale infrastructure and the hatchery. Most of the construction took place on public lands with some minor voluntary land donations



(VLD) contributed by the project beneficiaries. Transfers of titles and VLD were carried out in compliance with applicable processes set out in the RPF. (ICR para. 63).

b. Fiduciary Compliance

(Reference ICR paras. 64 to 69).

Procurement: The ICR (para. 64) reports that all planned activities under both components of the Project were completed; however, 21 individual consultant packages were terminated due to the consultants finding alternative employment. The main issues during implementation were delays in the recruitment of consultants to mobilize the component teams at the start of the Project and delays in procurement of packages related to the project design of the hatchery. Weak procurement capacity and high procurement consultant turnover were the main reasons for the delays. Throughout the implementation period, procurement performance was rated Moderately Satisfactory, but it was upgraded to Satisfactory in June 2021 as the main procurement activities were completed by May 2021. The ICR does not report any case of mis-procurement. (ICR para. 64).

Financial Management (FM): The FM performance rating for the Project was Satisfactory for most of the implementation period except for a one-time rating of Moderately Satisfactory due to delays in recruitment of local FM consultants and in submitting financial reports to the Bank. The FM manuals incorporated the necessary internal controls using the country's specified systems. FM reports were submitted timely to the Bank. Audits were performed by independent external auditors approved by the Bank. The auditors expressed unqualified opinions in regard to the audited financial statements. The ICR does not report any case of ineligible expenditures. (ICR paras. 66 to 69).

c. Unintended impacts (Positive or Negative)

No significant unintended impacts were reported in the ICR.

d. Other

(Reference ICR paras. 36 to 39).

Gender: The Project was not gender-tagged. However, some gender-related activities were included in the project design and implementation. Under Component 1 (Fisheries Management), a Gender action Plan (GAP) was developed to guide project activities. The Project fostered and supported the incorporation of GAPs in the management plans developed by the CFIs, and female-headed households was a criterion for the selection of CFIs under the Project. Female participation was promoted for all consultations and women were consulted during the elaboration of guidelines and training manuals developed under the Project. The FiA and PFiA staff were trained on gender concepts and best practices. A report prepared by the FiA regarding the Project's results indicates that the number of women members of the CFIs and CFCs at least



doubled over the course of the Project (compared to baseline of 62 percent, 97 percent of the survey respondents reported actively participating in the CFIs). (ICR paras. 36 and 37).

Institutional Strengthening: As discussed in Section 4 on Efficacy, capacity building in the key government agencies (national and provincial level) and the communities (CFIs and CFCs) was a key focus during project implementation.

Poverty Reduction and Shared Prosperity: The Project financed the implementation of 45 small-scale infrastructure subprojects distributed across 70 CFIs that were selected based on Commune Development Plans. The subprojects included road rehabilitation, culverts, water wells, and construction of latrines, and have been instrumental in improving accessibility and livelihood conditions at the community level. The support provided under the livelihoods enhancement scheme contributed to increasing food security while reducing the risk of over-exploitation of fish resources. Beneficiary surveys confirmed that the Project activities had resulted in social and economic benefits.

11. Ratings

Ratings	ICR	IEG	Reason for Disagreements/Comment
Outcome	Satisfactory	Satisfactory	
Bank Performance	Satisfactory	Satisfactory	
Quality of M&E	Substantial	Substantial	
Quality of ICR	---	Substantial	

12. Lessons

(Reference ICR paras. 86 to 90).

The ICR (paras. 86 to 90) lists a number of lessons derived from the Project's experience. Based thereon, IEG derives the following lessons relevant for similar projects carried out in comparable environments.

Early and adequate attention to institutional strengthening, capacity building, and a clear demarcation of responsibilities between the key agencies is essential for effective water resources management (WRM). Experience under the Project showed that the lack of clarity regarding implementation responsibilities among MOWRAM's line agencies affected the first few years of implementation due to technical capacity gaps resulting from the lack of engagement from some agencies. Weaknesses in technical capacity and resources for WRM at a provincial level and the need to improve cross-agency collaboration between the key agencies were evident in the early years of implementation. More thorough assessments at the appraisal or early stages of implementation would have helped in early identification of these weaknesses and helped prevent delays in implementation. (ICR para. 86).



Several synchronized country projects interlinked by a regional component can contribute to advancing transboundary dialogue, but, for any individual country and project, the project development objectives need to be realistically formulated to limit objectives to those that are within the purview of the country concerned. The Project was designed to be implemented in parallel with other projects in the Mekong IWRM Program. By doing so, the Project contributed to building the foundation of important aspects of IWRM in the country to better equip it for transboundary dialogue and collaboration. However, transboundary actions, by definition, require the implementation to be carried out by both the countries involved. In the case of the Project, the PDO indicator concerning transboundary exchange of WRM data and analysis with Vietnam could only be partially achieved because establishment of the implementation arrangements needed concurrence and execution by both countries which was beyond the purview of Cambodia alone.

Strong collaboration and leadership involving stakeholders at several levels can significantly enhance the achievement of objectives and the mitigation of impacts from external shocks.

This was particularly evident under Component 1 (Fisheries Management) of the Project. A collaborative approach was proposed during project design. Communities were engaged and consulted in all decision-making processes. A combination of bottom-up and top-down processes was used in defining and implementing activities to be financed under the Project. Transparent beneficiary selection methods were developed, and small infrastructure needs prioritized, based on local development plans. The commitment from the stakeholders involved was demonstrated during the period of the COVID pandemic where engagement and support remained strong. (ICR para. 88).

In-built sustainability measures developed during project design and implementation are key for ensuring operational effectiveness of the project investments after project completion. To ensure sustainability of the project benefits, the clients need to establish operational structures and allocate financial resources to enable sustainable operations after the completion of the Project. These aspects need to be built in during the project design. This was particularly evident from the experience under the hatchery subproject.

13. Assessment Recommended?

No

14. Comments on Quality of ICR

The ICR is generally well-written, candid, and follows the OPCS guidelines (except in regard to length - 34 pages compared to the recommended 15 pages). The ICR provides an adequate theory of change in regard to the causal links and the results chain. The reporting is generally outcome focused but constrained in some cases by weaknesses in the M&E system. The ICR provides a number of lessons that are drawn from the Project's experience and are relevant for similar projects carried out in comparable environments. One area



where the ICR could have provided greater elaboration is the findings of the MTR mission in September 2019 and the steps taken to improve project implementation.

a. Quality of ICR Rating
Substantial