



# Completion Report

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Project Numbers: 44321-013 and 44321-014  
Loan Numbers: 3006, 3007, and 8271  
Grant Numbers: 0349, 0350, and 0818

March 2025

## Cambodia: Climate Resilient Rice Commercialization Sector Development Program and Additional Financing

Ministry of Economy and Finance  
Program Management Office



## CURRENCY EQUIVALENTS

	Currency unit	–	riel (KHR)		
				<b>At Approval</b>	<b>At Project Completion</b>
				As of 22 May 2013	As of 30 September 2024
	KHR1.00	=	\$0.00024		\$0.00025
	\$1.00	=	KHR4,025		KHR4,065

## ABBREVIATIONS

AC	Agricultural Cooperative
ADB	Asian Development Bank
CAEA	Commune Agro-ecosystems Analysis
CLUP	Commune Land-use Planning
COVID-19	coronavirus disease
DMF	Design and Monitoring Framework
FSMIS	Farming Systems Management Information System
FWUC	Farmer Water User Community
GAFSP	Global Agriculture and Food Security Program
GAP	Gender Action Plan
MAFF	Ministry of Agriculture, Forestry and Fisheries
MEF	Ministry of Economy and Finance
MLMUPC	Ministry of Land Management, Urban Planning and Construction
MOWRAM	Ministry of Water Resources and Meteorology
NIO	National Implementation Office
PDS	Paddy Drying and Storage Facilities
PDAFF	Provincial Department of Agriculture, Forestry and Fisheries
PIO	Provincial Implementation Offices
PMO	Program Management Office
RGC	Royal Government of Cambodia
SCF	Strategic Climate Fund
SPS	Seed Processing and Storage Facilities
SDP	Sector Development Program
TIP	technical information package
WICI	Weather-indexed Crop Insurance

## NOTES

- (i) The fiscal year (FY) of the Government of Cambodia and its agencies ends on 31 December.
- (ii) In this report, "\$" refers to United States dollars



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## BASIC DATA

### A. Project Identification

1.	Program number and program title	44321-013: Climate Resilient Rice Commercialization Sector Development Program 44321-014: Climate Resilient Rice Commercialization Sector Development Program (Additional Financing)
2.	Mode of financial assistance	Sovereign Sector Development Program
3.	Country	Cambodia
4.	Borrower	Kingdom of Cambodia
5.	Executing agency	Ministry of Economy and Finance
6.	Products	

Item	Approval Number	Financing Amount (\$ million)	Financing Source	Product Modality and Nature of Activities
Loan	3006	24.0	ADF	SDP-policy-based loan
Loan	3007	31.0	ADF	SDP-project loan
Cofinancing loan	8271	5.0	SCF/PPCR	Fully administered cofinancing
Cofinancing grant	0350	4.5	SCF/PPCR	Fully administered cofinancing
Cofinancing grant	0349	14.6	GAFSP	Fully administered cofinancing
Cofinancing grant	0818	3.8	GAFSP	Fully administered cofinancing
Government		8.45		
<b>Project Total</b>		<b>91.35</b>		

ADB = Asian Development Bank, ADF = Asian Development Fund, GAFSP= Global Agriculture and Food Security Program, PPCR = Pilot Program for Climate Resilience, SCF = Strategic Climate Fund, SDP = Sector Development Program.

### B. Project Cost and Financing

#### 1. Project cost (\$ million)

##### 1.1 Policy-based Loan (Loan 3006-CAM)

Cost	Estimate at Approval <sup>a</sup>	Actual
Foreign exchange cost	24.00	22.69
Local currency cost	0.00	0.00
<b>Total</b>	<b>24.00</b>	<b>22.69</b>

<sup>a</sup> The total cost was reduced to \$22.69 million by the final disbursement of policy-based loan on 26 August 2022 due to SDR fluctuation.

##### 1.2. Project Loans and Grants (Loan 3007-CAM, Loan 8271-CAM, Grant 0349-CAM, & Grant 0350-CAM) and Government

Cost	Estimate at Approval <sup>a</sup>	Actual
Foreign exchange cost	25.45	59.13
Local currency cost	37.98	0.00
<b>Total</b>	<b>63.43</b>	<b>59.13</b>

<sup>a</sup> The total cost was reduced to \$61.16 million by the project loan closing on 30 September 2024 due to SDR fluctuation.

**1.3. Additional Financing (Grant 0818-CAM) and Government**

<b>Cost</b>	<b>Estimate at Approval</b>	<b>Actual</b>
Foreign exchange cost	1.09	3.78
Local currency cost	2.83	0.00
<b>Total</b>	<b>3.92</b>	<b>3.78</b>

## 2. Cost breakdown by project component (\$ million)

**2.1. Policy Component (Loan 3006-CAM)**

<b>Component</b>	<b>Estimate at Approval<sup>a</sup></b>	<b>Actual</b>
First Tranche	12.00	12.30
Second Tranche	12.00	10.39
<b>Total<sup>b</sup></b>	<b>24.00</b>	<b>22.69</b>

<sup>a</sup> Refers to the original amount.

<sup>b</sup> The total cost was reduced to \$22.69 million by the final disbursement of policy-based loan on 26 August 2022 due to SDR fluctuation.

**2.2. Project Component (Loan 3007-CAM, Loan 8271-CAM, Grant 0349-CAM, Grant 0350-CAM & Grant 0818-CAM) and Government**

<b>Component</b>	<b>Estimate at Approval<sup>a</sup></b>	<b>Actual</b>
<b>A. Investment cost</b>		
1. Agricultural land-use zoning improved	5.01	5.97
2. Climate resilient rice value chain infrastructure developed	44.06	41.22
3. Rice value chain support services enhanced to improve quality of Cambodian rice	7.75	5.14
4: Weather Indexed Crop Insurance (WICI) piloted	2.41	2.71
5: Efficient program management and implementation	7.17	7.03
<b>Total base cost (A)</b>	<b>66.40</b>	<b>62.07</b>
B. Interest During Implementation <sup>b</sup>	0.93	0.84
C. Service Charges for ADB SCF Loan	0.02	0.00
<b>Total<sup>c</sup></b>	<b>67.35</b>	<b>62.91</b>

<sup>a</sup> Refers to the original amount. Includes government contribution of \$8.45 million. Contingency is included in each line item.

<sup>b</sup> Includes interest charges during implementation.

<sup>c</sup> The total cost was reduced to \$65.08 million by the project loan closing on 30 September 2024 due to SDR fluctuation.

Note: Policy-based loan is not included in the calculations.

## 3. Financing plan and actual (\$ million)

**3.1. Loan 3006-CAM, Loan 3007-CAM, Loan 8271-CAM, Grant 0349-CAM, Grant 0350-CAM & Grant 0818-CAM) and Government**

<b>Cost</b>	<b>Estimate at Approval</b>	<b>Actual</b>
Implementation cost		
Borrower financed <sup>a</sup>	8.45	7.12
Asian Development Bank financed (policy-based loan 3006)	24.00	22.69
Asian Development Bank financed (project loan 3007) <sup>b</sup>	31.00	28.11
Other external financing (SCF loan 8271, GAFSP grant 0349, SCF grant 0350 and GAFSP grant 0818)	27.90	27.68
<b>Total implementation cost<sup>c</sup></b>	<b>91.35</b>	<b>85.60</b>
Interest during construction costs		

Cost	Estimate at Approval	Actual
Borrower financed	0.0	0.0
Asian Development Bank financed	0.0	0.0
Other external financing	0.0	0.0
<b>Total interest during construction cost</b>	<b>0.0</b>	<b>0.0</b>

<sup>a</sup> Estimate at approval includes service charges for SCF Loan. Excludes government contribution for policy-based loan.

<sup>b</sup> Includes interest during implementation.

<sup>c</sup> The total implementation cost was reduced to \$87.76 million by the loan closing on 30 September 2024 due to SDR fluctuation.

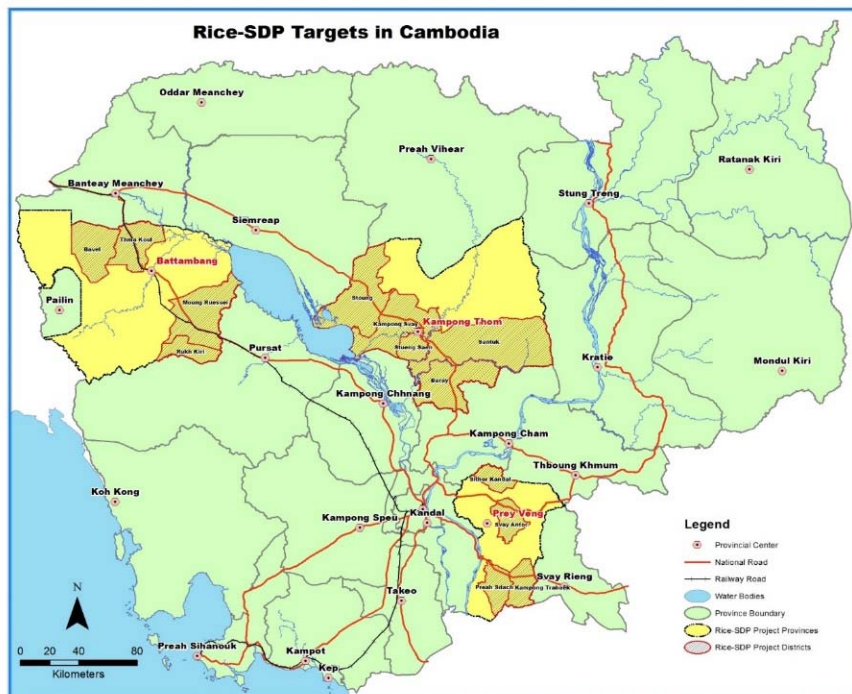
### C. Other Basic Data

<b>Program Title</b>	Climate Resilient Rice Commercialization Sector Development Program (Rice-SDP); and Climate Resilient Rice Commercialization Sector Development Program -Additional Financing (the AF)
<b>ADB Loan/Grant Numbers</b>	<b>Rice-SDP:</b> ADF Loan 3006 - CAM; ADF Loan 3007 - CAM; SCF Loan 8271 - CAM; SCF Grant 0350 – CAM; and GAFSP Grant 0349 – CAM; <b>The AF:</b> GAFSP Grant 0818 – CAM (EF).
<b>Implementing Agencies</b>	Ministry of Agriculture, Forestry and Fisheries (MAFF) Ministry of Water Resources and Meteorology (MOWRAM) Ministry of Land Management, Urban Planning and Construction (MLMUPC) Provincial Governments (Battambang, Kampong Thom and Prey Veng)
<b>Program Steering Committee</b>	Committee for Economic and Financial Policies (CEFP)
<b>Total Project Cost (\$ million)</b>	<b>Rice-SDP:</b> 87.43 <b>The AF:</b> 3.92
<b>Date of Loan/Grant Approval by ADB</b>	<b>Rice-SDP:</b> 27 June 2013 for all Loans and Grants <b>The AF:</b> 14 January 2022
<b>Date of Signing of Loan/Grant Agreements</b>	<b>Rice-SDP:</b> 26 August 2013 for all Loans and Grants <b>The AF:</b> 24 March 2022
<b>Date of Effectiveness of ADB Loan/Grant</b>	<b>Rice-SDP:</b> 13 November 2013 for all Loans and Grants <b>The AF:</b> 16 June 2022
<b>Closing Date of ADB Loan/Grant</b>	<b>Rice-SDP:</b> 31 August 2022 for ADB Loan 3006 – CAM ( <i>policy-based loan</i> ) 30 September 2024 for ADB Loan 3007 – CAM, SCF Loan, SCF Grant and GAFSP Grant <b>The AF:</b> 30 September 2024
<b>Dates of Last ADB Review Mission</b>	23 August-6 September 2024
<b>Program Impact</b>	Increased net incomes of stakeholders along the rice value chain.
<b>Program Outcome</b>	Enhanced production of quality rice in Cambodia while preserving the natural resource base.
<b>Outputs</b>	<b>1. Conducive legal framework and regulatory environment established to facilitate climate-resilient commercialization:</b> <ul style="list-style-type: none"> <li>- Promoting production and distribution of improved quality seed.</li> <li>- Strengthening agricultural land management.</li> <li>- Strengthening farmer’s organisations and promoting contract farming;</li> <li>- Facilitating the domestic trading and export of milled rice.</li> </ul> <b>2. Agricultural land-use zoning improved:</b> <ul style="list-style-type: none"> <li>- Establishing land-use zones.</li> <li>- Updating rice ecosystems and soil classification maps for identification of higher yielding rice growing areas.</li> </ul>

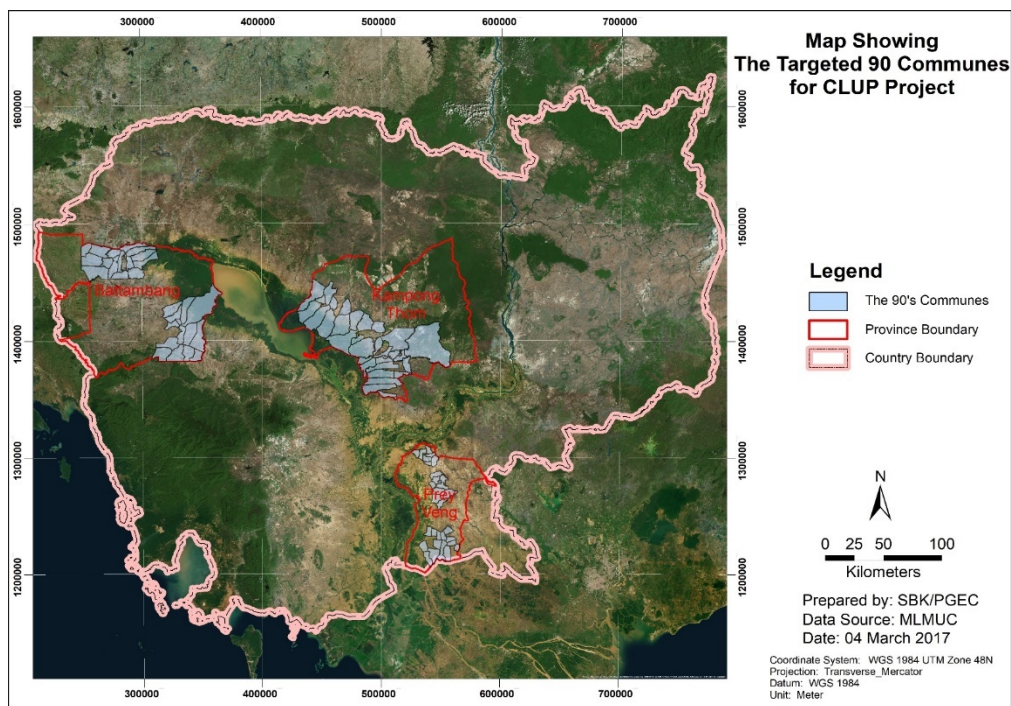
	<ul style="list-style-type: none"> <li>- Incorporating agro-ecosystems analysis into commune land-use planning;</li> <li>- Developing the capacity of MAFF and MLMUPC at national and sub-national levels to undertake joint work in relation to agricultural land-use planning.</li> </ul> <p><b>3. Climate resilient rice value chain infrastructure developed</b></p> <ul style="list-style-type: none"> <li>- Rehabilitation and climate proofing of irrigation systems.</li> <li>- Construction of paddy drying and storage facilities.</li> <li>- Construction of seed cleaning, drying, grading and storage facilities.</li> </ul> <p><b>4. Rice value chain support services enhanced to improve quality of Cambodian rice</b></p> <ul style="list-style-type: none"> <li>- Improving the availability and quality of commercial rice seed;</li> <li>- Upgrading technical extension materials to guide production in the four main rice crops.</li> <li>- Capacity building (technical and financial) of mill managers and operators;</li> <li>- Facilitating access to credit by farmers, traders and millers.</li> </ul> <p><b>5. Weather Indexed Crop Insurance (WICI) piloted</b></p> <ul style="list-style-type: none"> <li>- Undertaking a detailed Feasibility Study (FS) to determine the appropriateness of a WICI scheme.</li> <li>- Designing the operational parameters, product penetration plan and institutional arrangement.</li> <li>- Piloting the scheme in selected areas in three target provinces.</li> </ul> <p><b>6. Efficient program management and implementation</b></p> <ul style="list-style-type: none"> <li>- Effective project management;</li> <li>- Capacity building of the Project Management Officer (PMO) and each national Implementation Offices (NIOs) and the Provincial Implementation Offices (PIOs).</li> <li>- Coordination between policy development and investment activities.</li> </ul>
<b>Program Area</b>	Policy initiatives - Whole country. Project (investment initiatives) - Three provinces: Battambang, Kampong Thom and Prey Veng.
<b>Overall Project Progress</b>	100%
<b>Elapsed Time</b>	100%

## PROJECT MAPS

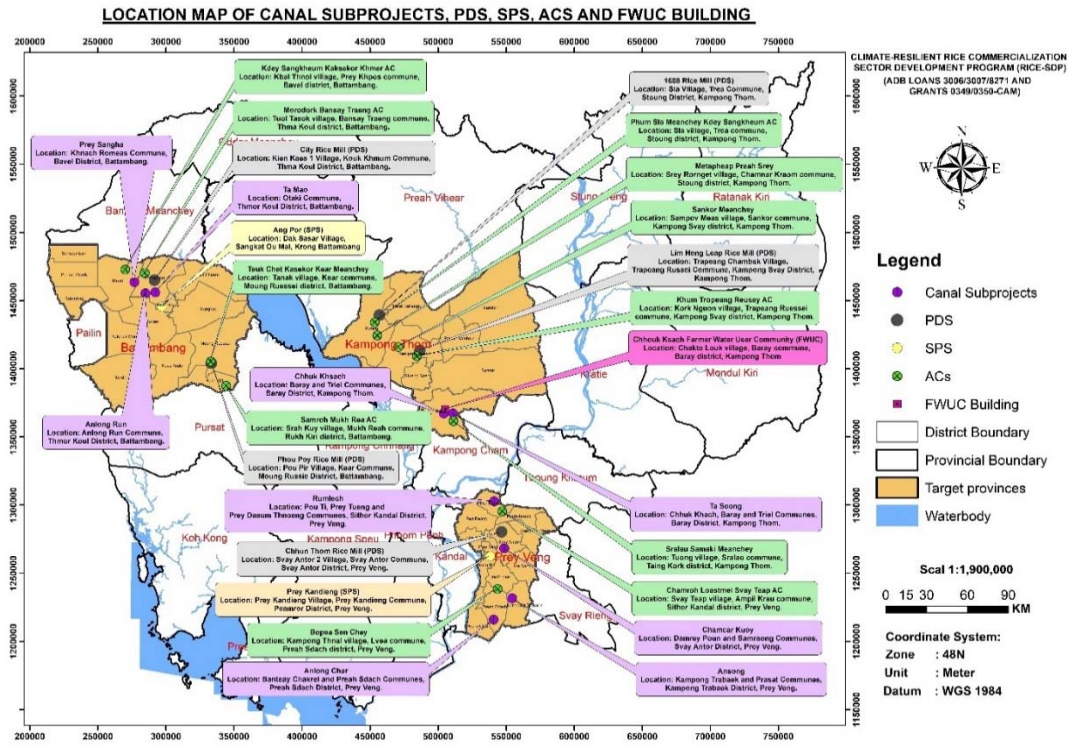
### A. Project Target Area



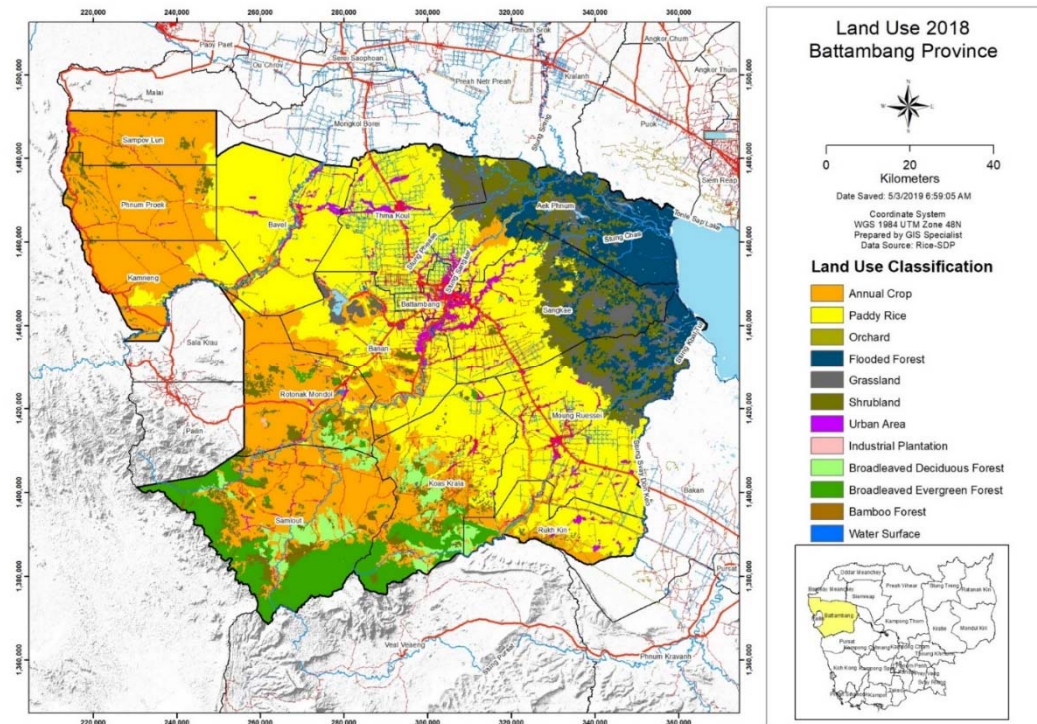
### B. Target Provinces and Communes



### C. Location Map of All Infrastructure Subprojects (28 subprojects)

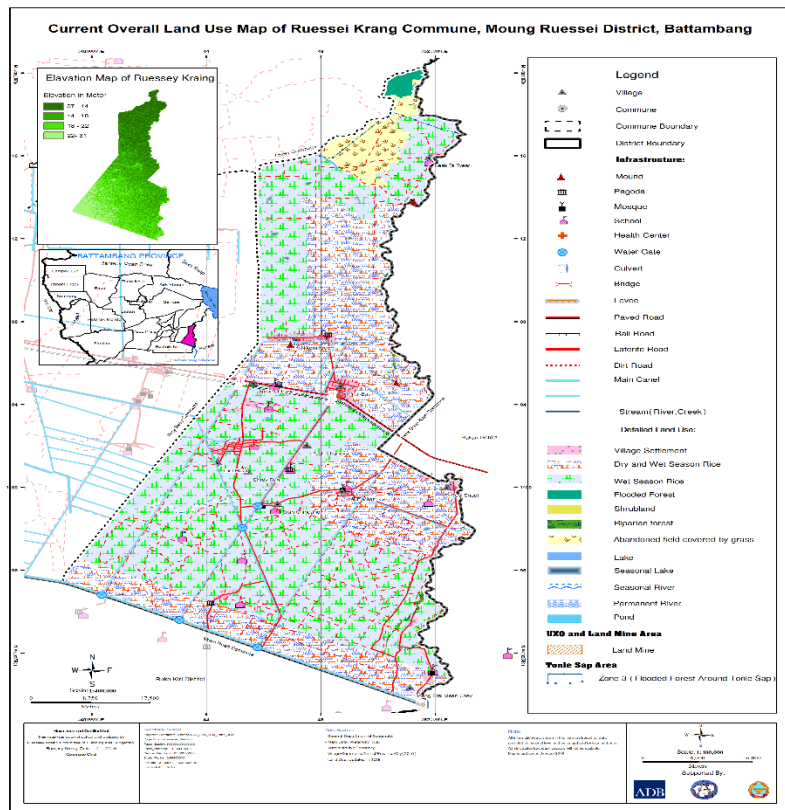


### D. Sample Land Use Map of a Target Province

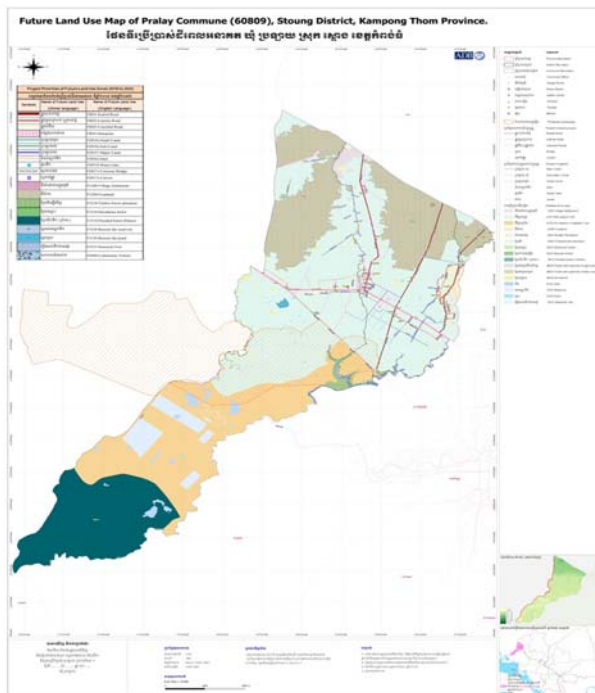




### G. Sample Current Land Use Map of a Target Commune



### H. Sample Future Land Use Map of a Target Commune



## I. PROJECT DESIGN AND IMPLEMENTATION

### A. Rationale

1. Cambodia's gross domestic product expanded by an average of 6% per annum during 2007-2011 and by 7.0% per annum from 2011 to 2013. Agriculture remained an important sector in the Cambodian economy, accounting for 32% of GDP, employing 60% of the workforce, and 80% of the population relied on agriculture for their livelihood. Women represented 74% of the agricultural workforce. Paddy production covered 90% of cultivated land and contributed about 50% of agricultural outputs in 2011.<sup>1</sup> Given the high shares of rural employment and women, agriculture sector remains critical for poverty reduction.

2. Cambodia reported a paddy surplus of 3.3 million tons in 2010, but its paddy yield remained one of the lowest in Southeast Asia. Price fluctuations across provinces were observed due to supply and demand imbalances and the lack of in-country storage and processing capacity, limited marketing channels, and distribution infrastructure. Despite the paddy surplus, eleven percent of all households were food insecure, and many households reported one to two months of food deficit.<sup>2</sup> The quality of Cambodian rice for export was variable due to inappropriate production and lack of use of post-harvest and processing technologies.

3. To achieve economic growth on a broader and sustainable basis, constraints in the rice value chain were required to be addressed. The five major constraints were: (1) lack of an enabling legal and regulatory environment for strengthening market linkages, productivity enhancement, organized production, and sustainable access to finance; (2) suboptimal use of land and water resources for paddy production due to limited capacity in agricultural land management and underinvestment in increasing total factor productivity; (3) inadequate capacities of post-harvest infrastructure to handle increasing volumes of paddy; (4) inconsistent quality of Cambodian rice; and (5) paddy production increasingly vulnerable to the changing climate and the loss is estimated to be significant, and climate change is expected to exacerbate food insecurity in Cambodia.

4. To address these constraints, the Royal Government of Cambodia (government) and Asian Development Bank (ADB) approved the Climate Resilient Rice Commercialization Sector Development Program (Rice-SDP) on 27 June 2013 with a total cost equivalent to \$87.43 million. The Rice-SDP comprised a policy-based loan equivalent to \$24.0 million for policy development and a project loan equivalent to \$55.1 million for project activities in the three target provinces of Battambang, Prey Veng, and Kampong Thom. The loan and grants were declared effective on 13 November 2013. The government requested an additional grant amounting to \$3.8 million from the Global Agriculture and Food Security Program (GAFSP) on 12 August 2020 to scale up selected activities under Rice-SDP to expedite recovery from the COVID-19 pandemic and rebuild farmers' resilience to both economic and climate shocks. The additional financing (AF) was approved by ADB on 14 January 2022 and was declared effective on 16 June 2022. The counterpart funding from the government for Rice-SDP, including the AF (from now on called Rice-SDP, the program), was \$8.45 million.

5. The Rice-SDP supported the implementation of the *Policy on the Promotion of Paddy Production and Rice Export*, Rectangular Strategy (Phase II, 2008), National Strategic

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<sup>1</sup> Asian Development Bank. 2011. *Cambodia: Agriculture, Rural Development and Natural Resources Sector Assessment, Strategy and Roadmap*. Manila.

<sup>2</sup> World Food Program. 2008. *Comprehensive Food Security and Vulnerability Analysis- Cambodia*. Phnom Penh.

Development Plan (2011-13), and the Strategy on Agriculture and Water (2011-2013) of the government. These long-term strategies aimed to achieve enhanced agricultural productivity and sustainable economic growth in rural areas through agriculture and water sector programs. The AF supported the implementation of the COVID-19 Active Response and Expenditure Support (CARES) Program. The CARES Program was funded through the COVID-19 pandemic response option (CPRO) under ADB's Countercyclical Support Facility. The AF strengthened the objective of Rice-SDP by addressing socioeconomic impacts of COVID-19 and avoiding disruptions in the agricultural supply chains that threatened food security. The program was consistent with ADB's country partnership strategy for Cambodia (CPS), 2011-2013<sup>3</sup>, and its Agriculture and Natural Resources Sector Assessment, Strategy, and Roadmap<sup>4</sup>, which supported the government in promoting food security and improving agricultural productivity, diversification, and commercialization. The program was aligned with ADB's Strategy 2030 and contributed to achieving the operational priorities by strengthening women leadership in agricultural cooperatives (ACs), farmer water users communities (FWUCs) and construction committees, and participation in climate adaptation and mitigation activities; tackling climate change through climate risk instruments such as climate smart agriculture, local climate adapted rice seeds, land use plans, and crop insurance; and promoting rural development and food security through improved access to quality seeds and agricultural technologies, drying and storage facilities, strengthening market linkages, and capacity building.<sup>5</sup>

6. The sector development program (SDP) modality was adopted as the government was firmly committed to rice commercialization to enhance economic growth and food security, and significant adjustment costs were associated with the project implementation. The SDP modality was also appropriate as the project focused on: (1) commercialization of rice that addressed resilience of its underlying agro-ecological system, which entailed adjustments in the legal framework and relevant regulations coupled with institutional strengthening of relevant actors; and (2) the policy and regulatory reforms were accompanied by well-sequenced/timed investments that enhanced factor productivity. Moreover, the SDP modality enabled the packaging of assistance to address reforms, investments, and capacity building in a sequential manner. The policy-based loan was national in scope, and thus, the SDP modality for such interventions was not only desirable but necessary.

7. Several minor changes in implementation approaches were conducted to smoothen Rice-SDP implementation and introduce innovation such as innovative public private partnership (PPP) approach to establish paddy drying and storage (PDS) facilities through a public sector investment project; introduction of an affordable and commercially viable weather indexed crop insurance (WICI) scheme through a PPP approach; piloting of the laser land levelling activity and creating potential service providers/entrepreneurs to offer the services at their own initiatives; creating a national database for the storage, management and dissemination of commune agro-ecosystem analysis (CAEA) and technical information package (TIP) data (called as Farming System Management Information System - "FSMIS"); and introducing market facilitation or business matching forum bringing farmers, ACs, millers, exporters, financial institutions, local and national authorities together to a platform creating a supply-demand chain. All such changes strengthened Rice-SDP implementation and attainment of its objective.

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<sup>3</sup> ADB. 2010. *Country Partnership Strategy: Cambodia, 2011–2013*. Manila

<sup>4</sup> ADB. 2011. *Agriculture and Natural Resources Sector Assessment, Strategy, and Roadmap*. Manila (updated in 2013)

<sup>5</sup> ADB. 2018. *Strategy 2030: Achieving a Prosperous, Inclusive, Resilient, and Sustainable Asia and the Pacific*. Manila.

## B. Project Impact, Outcome, and Output

8. The expected impact of the program was increased net incomes of stakeholders along the rice value chain. At appraisal, the impact indicators were (i) average farming household incomes increased from \$400 in 2010 to \$700 by 2020; (ii) revenue of rice exporters increased from \$100 million in 2012 to \$600 million in 2020; and (iii) net profit of rice exporters increased from \$30 million in 2012 to \$180 million by 2020. The intended outcome of the program was enhanced production of quality rice in Cambodia while preserving the natural resource base. At appraisal, the outcome indicators were (i) paddy production increased from 8.0 million tons in 2012 to 9.5 million tons by 2018; (ii) milled rice exports increased from 200,000 tons in 2011 to 1.2 million tons in 2017; (iii) wet paddy exports to Vietnam and Thailand reduced to 0.2 million tons by 2018 (2011 baseline: 2.2 million tons per annum). The impact and outcomes were to be achieved through six outputs: (i) established a conducive legal and regulatory environment to facilitate climate-resilient rice commercialization, (ii) improved agricultural land-use zoning, (iii) developed climate-resilient rice value chain infrastructure, (iv) enhanced rice value chain support services to improve quality of Cambodian rice, (v) piloted weather-indexed crop insurance, and (vi) efficient program management and implementation.

9. The program design and monitoring framework (DMF) targets were revised and adapted to the implementation challenges encountered, aligning with government regulations issued during project implementation, results of feasibility studies, impact of the COVID-19 pandemic, and additional activities due to the AF. The notable revisions made related to the addition of some new targets and revision of a few targets.<sup>6 7 8</sup> The revision of DMF did not materially alter or fundamentally affect the program outcome but safeguarded the sustainability of program benefits. The program's success was measured by 24 policy actions for policy-based loan (12 policy actions each for the first tranche and second tranche) and 32 targets for project loan<sup>9</sup>.

10. All 24 policy actions relating to local seed production, establishment of agricultural land use zones, sustainable management and use of agricultural land, farmers' organizations and contract farming, and milled rice standards and trade facilitation were successfully achieved and contributed to successful interventions of the project loan. Out of 32 targets (4 impact targets, 4 outcome targets, and 24 output targets) of the project loan, 31 were achieved, and 1 output target was partially achieved. The summary of compliance with policy actions is in Appendix 1; the DMF, including GASFP results framework and Strategic Climate Fund (SCF) results framework, is in Appendix 2; and the summary of project performance monitoring is in Appendix 3.

11. **Output 1 – A Conducive Legal and Regulatory Environment Established to Facilitate Climate-Resilient Rice Commercialization.** The program supported the government in achieving an enabling policy environment conducive to rice commercialization. It fully complied

<sup>6</sup> One new impact target was added due to additional financing approved by ADB on 14 January 2022. The target was "Indicator d. Average rice yields increased to more than 3.50 t/ha by 2025."

<sup>7</sup> Two new outcome targets were added due to additional financing approved by ADB on 14 January 2022. They were (i) Indicator c. Guidelines for establishing agricultural land use zones completed by 2020, and (ii) Indicator d. Commune land-use plan incorporating agro-ecosystems analysis developed for all target communes by 2022. One outcome target was revised (Indicator b), and one was removed (original Indicator c. Wet paddy exports to Vietnam and Thailand reduced to 0.2 million tons by 2018) through a minor change in scope approved by ADB on 2 November 2021.

<sup>8</sup> Six new output targets (Indicators 3d, 3e, 4f, 4g, 4h, and 5c) were added, and one target was revised (Indicator 3ai) due to additional financing approved by ADB on 14 January 2022. Four output targets were revised (Indicators 3aiv, 3b, 5a, and 5b) through a minor change in scope approved by ADB on 2 November 2021.

<sup>9</sup> Excludes 5 targets under output 1 which relates to policy component.

with all 24 policy actions for the first and the second tranches.<sup>10</sup> It established and strengthened the legal framework and institutional environment through achieving 16 key policies, laws, regulations, and guidelines in four key policy areas.

- (1) Policy Area 1 – Promote local seed production and distribution: Five key policies, regulations, and guidelines were achieved, such as (i) Seed Policy for Cambodia, (ii) National Seed Standards, (iii) *Prakas* on Procedures for Providing Seed Quality Certification, (iv) General Introduction to the Examination of Distinctiveness, Uniformity, and Stability (DUS) of New Varieties of Plants, and (v) Guidelines for the Conduct of Tests for DUS of Rice. The program successfully established and strengthened the enabling policy, regulatory and institutional environment to promote local seed production, certification and distribution. The policy actions have improved the availability and quality of rice seeds, one of the main constraints limiting rice productivity. The introduction of seed quality certification and DUS are encouraging the introduction of new varieties from all sources.
- (2) Policy Area 2 – Strengthen agricultural land management: Five key policies, laws, regulations, and guidelines were achieved, such as (i) National Policy on Spatial Planning, (ii) Land Policy “White Paper”, (iii) draft Law on Agricultural Land, (iv) National Action Program to combat land degradation in Cambodia, and (v) Guidelines for establishing agricultural land-use zones. The program successfully established and strengthened the legal framework for land use for efficient and sustainable land management, ensuring a longer-term balance between socio-economic development and protection of the environment. The policy actions are protecting agricultural land from the impacts of climate change and from unsustainable uses and guiding production possibilities through zoning initiatives.
- (3) Policy Area 3 – Strengthen farmers’ organizations and promote contract farming: Two key laws and regulations were achieved, such as (i) Sub-decree on Contract Farming, and (ii) Law on Agricultural Cooperatives. The program played an important role in forming, strengthening and expanding agricultural cooperatives as well as standardizing and enforcing compliance with a contract farming between paddy producers, associations and interested parties. The policy actions have legitimized the fledging agricultural cooperative movement enabling them to play a greater role in input supply and marketing arrangements to the immediate benefits of farmers and the private traders and processors who are dependent upon their supplies.
- (4) Policy Area 4 – Facilitate domestic trading and export of milled rice: Four key policies, laws, regulations, and guidelines were achieved, such as (i) Cambodian standards on milled rice, (ii) *Prakas* on establishment of 2 Cambodian Standards, Standard for Phka Rumduol Rice and Standard for Phka Chan Sen Sar Rice, (iii) Law on the Management of Pesticides and Fertilizers, and (iv) Law on Plant Protection and Quarantine. The program successfully established and strengthened the policy, regulatory, and institutional environment to facilitate the domestic trading and export of milled rice as well as supported maintaining and improving the competitiveness of Cambodian rice in the international market. The policy actions have provided a reference framework for rice trading that gave buyers added confidence in the quality they might request and ensured farmers receive appropriate value for the product they deliver.

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<sup>10</sup> A detailed Progress Report on Tranche Release was submitted by the executing agency (Ministry of Economy and Finance) and ADB processed the Tranche Release report in August 2022 and closed the policy-based loan.

12. Besides fully complying with all policy actions required under Output 1, the program also completed two additional Prakas, one inter-ministerial Prakas, and two Decisions to implement the policy and institutional development outcomes.<sup>11</sup> Thus, the program exceeded the output 1 performance targets.

13. **Output 2 – Agricultural Land-use Zoning Improved.** The program exceeded the output 2 performance targets.<sup>12</sup> It achieved the target of conducting commune agro-ecosystem analysis (CAEA) for 90 target communes in three target provinces and incorporated them into commune land use plans (CLUPs). The program consulted a total of 24,768 farmers, including 11,592 (47%) females, during the preparation of CAEA and CLUP for 90 communes, thereby exceeding the target of 40% female consultation. (see Table 1). In addition to farmers, a total of 2,732 district, province, and national level participants, including 797 (29%) women, were consulted during the CLUP preparation, and 343 participants, including 28 women (8%), were consulted for the provincial hotspot maps. Before the CAEA implementation, the program conducted 7 ToTs on CAEA and trained 267 staff of the Ministry of Agriculture, Forestry and Fisheries (MAFF) and its provincial departments, of whom 59 (22%) were women. The program also conducted 3 workshops and 8 trainings on CLUP and trained 386 staff of the Ministry of Land Management, Urban Planning and Construction (MLMUPC), its provincial departments, and local authorities, of whom 32 (8%) were women.

**Table 1: Farmers Consulted for CAEA and CLUP in 90 Target Communes**

Topics	No. of Training Programs	No. of days	Total farmers Attended	Female Persons Attended	% Female
Consultation meetings on CAEA	834	1,426	13,454	5,256	39
Consultations on CLUPs	409	410	11,314	6,336	56
<b>Total</b>	<b>1,332</b>	<b>1,836</b>	<b>24,768</b>	<b>11,592</b>	<b>47</b>

14. Besides fully meeting the target indicators, the program

- (1) updated rice ecosystem maps, soil classification maps, and land use maps of 13 target districts and 3 target provinces and disseminated them to the program beneficiaries, extension system stakeholders, and national and subnational officials. The program established rice ecosystem datasets and soil classification datasets for the target provinces. A total of 81 MAFF and PDAFF (provincial department of agriculture, forestry and fisheries) staff, including 16 women (20%), participated in the trainings on rice-ecosystem, land use, and soil classification; 186 participants, including 20 women (11%), participated in the consultative workshops to finalize land use maps and soil classification maps; and 1,067 participants, including 244 women (23%), participated in the consultative workshops to finalize rice ecosystem maps in target provinces.

<sup>11</sup> These include: (i) Prakas on Seed Packet Label; (ii) Prakas on Testing, Sampling, Classification, Standardization of Seed Quality and Procedures of Seed Quality Inspection; (iii) Inter-ministerial Prakas on Ability to be Justice Police; (iv) Decision on the Assignment of Seed Inspection Agent of Ministry of Agriculture Forestry and Fisheries (MAFF); and (v) Decision on the Assignment of Phytosanitary Inspection Agent of MAFF.

<sup>12</sup> All activities under Output 2 were fully completed by December 2022. The maintenance and running of Farming Systems Management Information System (FSMIS) at Department of Agriculture, Forestry and Fishery Extension continued in 2023 and 2024.

- (2) developed and launched a national online Farming Systems Management Information System (FSMIS) database for the storage, management, and dissemination of CAEA and TIP data to extension system stakeholders across Cambodia. A total of 259 MAFF and PDAFF staffs, of whom 73 (28%) were female, from three target provinces were trained on CAEA data entry and maintenance of the national online FSMIS database. The program installed a server and associated ICT services to run FSMIS at the Department of Agriculture, Forestry and Fisheries Extension. Data related to 90 CAEAs conducted under the program and 400 other CAEAs completed under various donor support have been exported to the FSMIS database.
- (3) developed and launched a national online CLUP database for the storage, management, and dissemination of CLUP data to stakeholders across Cambodia. The program installed a server and associated ICT services to run the CLUP database at MLMUPC.

15. **Output 3 – Climate Resilient Rice Value Chain Infrastructure Developed.** The program achieved or overachieved the performance targets set under this output.<sup>13</sup>

16. **Rehabilitation and climate proofing of irrigation systems.** The program rehabilitated 9 irrigation sub-projects (3 in Battambang- Prey Sangha, Ta Mao, and Anlong Run; 2 in Kampong Thom- Chhuk Ksach and Ta Soong; and 4 in Prey Veng- Ansong, Anlong Char, Chamcar Kuoy, and Rumlech), benefitting 82 villages and 100,095 water users, including 51,053 (51%) females, an achievement of 200% of the beneficiary target. The nine climate-resilient irrigation subprojects have a combined command area of 18,586 hectares (ha). A total of 8,057 unskilled laborers, including 3,259 (40.4%) females, were employed in the rehabilitation. In total, the irrigation subprojects employed 10,475 skilled and unskilled laborers, including 3,360 females. Nine farmer water user communities (FWUCs) were established following the statute of FWUC establishment, and 84,659 FWUC members, including 44,321 (52%) females, trained in group management and operation and maintenance of irrigation subprojects, an achievement of 106% of the target. (see Table 2). The program engaged (i) 55% women as members in the construction subcommittee (113 females of 204 total members) against the target of 50%, an achievement of 110%; (ii) 48% women as members of the FWUC management committees (106 females of 223 total members) against the target of 30%, an achievement of 160%; and (iii) 54% women as members of the FWUC advisory committees (45 females of 84 total members) against the target of 50%, an achievement of 108%. In addition, the program prepared a toolkit for climate-proofing of irrigation systems for future reference.

**Table 2: Rehabilitation of Irrigation Subprojects**

Province	No. of Subproject	No. of Village	Target (Feasibility)	Achievement	Total Beneficiaries	Female	Total FWUC Members	Female
1. Battambang	3	15	3,623	4,623	47,194	23,546	28,921	14,988
2. Kampong Thom	2	27	3,720	4,903	26,497	14,031	26,497	14,031
3. Prey Veng	4	40	8,990	9,060	26,404	13,476	29,241	15,302
<b>Total</b>	<b>9</b>	<b>82</b>	<b>16,333</b>	<b>18,586</b>	<b>100,095</b>	<b>51,053</b>	<b>84,659</b>	<b>44,321</b>

<sup>13</sup> All activities under Output 3 were fully completed by December 2022 except for the construction of paddy/rice seed storage houses and drying floors under the AF which was completed by July 2024.

17. **Construction of paddy drying and storage facilities.** The program constructed 5 paddy drying and storage (PDS) facilities (2 in Battambang – Phou Poy Rice Mill and City Rice Mill; 2 in Kampong Thom – 1688 Rice Mill and Lim Heng Leap Rice Mill; and 1 in Prey Veng – Chhun Thom Rice Mill) through concessional loans to the rice millers. The five PDS facilities could dry on average 2,780 tons of paddy per day, which could go up to 3,380 tons of paddy per day, which is 169% of the target, and extend the paddy storage capacity by 62,850 tons per season, which is 157% of the target. (see Table 3). During the construction phase, the PDS facilities generated employment opportunities for 1,463 skilled and unskilled laborers, including 414 females (28%), and during the operation phase, the PDS facilities created employment opportunities for 1,388 skilled and unskilled laborers, including 459 (33%) females. Specifically, the PDS facilities engaged 854 unskilled laborers, including 361 (42%) females during the construction phase and 1,110 unskilled laborers, including 365 (33%) females during the operation phase. In addition, a total of 144 administrative staff, including 75 (52%) females, were employed in rice drying and storage facilities. The concessional loans of \$9.3 million to the five rice millers have attracted additional investments of \$13.37 million from the millers for the expansion of their rice milling business, an achievement of 267% of the target. The rice millers will repay the concessional loan to the government through the Agricultural and Rural Development Bank (ARDB).

18. Besides fully meeting the target indicators, the program developed, reached consensus among stakeholders, obtained necessary approvals, and deployed a tripartite agreement between three parties- the Ministry of Economy and Finance/program management office (MEF/PMO, the executing agency of the program), rice millers, and the ARDB, who was engaged to collect the credit, and a letter of agreement (LoA) between two parties- MEF/PMO and ARDB to engage ARDB in PDS activities. The program built the capacity of the rice millers, directly engaging them in their PDS facilities proposal preparation, submission, procurement of civil works, construction, commissioning, and operation of the facilities.

**Table 3: Construction of PDS facilities**

Millers	Drying Capacity of Dryers (tons/day)			Storage Capacity (tons)					
	Project support	From Miller	Total	Project support	New Storage constructed by Miller due to project	Unutilized storage utilized due to project	Total due to the project	Storage before project	Storage after project
1. City Rice Mill	480	1,330	1,710	0	12,000	3,400	15,400	13,600	29,000
2. Phou Poy Rice Mill	500-800	200	700-1,000	8,000	7,000	1,500	16,500	3,500	20,000
3. 1688 Rice Mill	500-800	220	720-1,020	8,000	4,000	600	12,600	1,400	14,000
4. Lim Heng Leap Rice Mill	300-500	30	330-530	1,400	500	1,250	3,150	1,250	4,400
5. Chhun Thom Rice Mill	500-800	420	920-1,220	8,000	2,000	5,200	15,200	7,800	23,000
<b>Total</b>	<b>2,280-3,380</b>	<b>2,200</b>	<b>4,380-5,480</b>	<b>25,400</b>	<b>25,500</b>	<b>11,950</b>	<b>62,850</b>	<b>27,550</b>	<b>90,400</b>

19. **Construction of seed cleaning, drying, grading and storage facilities.** The program constructed 2 modern, state-of-the-art “Industry 4.0” IoT smart seed processing and storage (SPS) facilities at two agricultural stations, Ang Por agricultural station in Battambang and Prey Kandieng agricultural station in Prey Veng and equipped them with farm machinery and agricultural machinery. Under the guidance of the MAFF minister, MAFF/national implementation

office (NIO), the implementing agency for the component, handed over the operation and management of both SPS facilities to the Cambodian Agricultural Research and Development Institute. The two SPS facilities have a combined processing capacity of 1,200 tons of rice seed per season and a combined storage capacity of 6,400 tons of rice seed. During the construction phase, the SPS facilities generated employment opportunities for 783 skilled and unskilled laborers, of whom 181 (23%) were females, and during the operation phase, the SPS facilities created employment opportunities for 90 skilled and unskilled laborers, of whom 40 (44%) were females. Specifically, the SPS facilities engaged 563 unskilled laborers, of whom 181 (32%) were females, during the construction phase and 61 unskilled laborers, of whom 27 (44%) were females, during the operation phase, an achievement of 147% of the target. A total of 23 administrative staff, including 13 (56%) females, were employed in the SPS facilities, an achievement of 114% of the target.

20. Besides fully meeting the target indicators, the program developed, reached consensus among stakeholders, and obtained necessary approvals for a business operation plan for the SPS facilities. The two seed centers (SPS facilities) were envisaged to operate under a semi-autonomous model with the vision to serve premium seeds from SPS facilities to all the stakeholders in the nationwide rice value chain and to be a national paddy/seed market information center. The business plan sets out the business principles, roles and responsibilities of stakeholders, marketing including business strategies, business monitoring, cash flow, and risks and management of risks. It is worth mentioning here that the Cambodian Agricultural Research and Development Institute is a semi-autonomous institute, and a full-fledged legal entity involved in quality seed breeding and their commercial production and dissemination in Cambodia.

21. **Small-Scale Subprojects for ACs.** The program constructed 11 paddy/rice seed storage houses and drying floors for 11 ACs (2 in Prey Veng, 4 in Battambang, and 5 in Kampong Thom), an achievement of 183% of the target. The 11 small-scale subprojects are benefitting a total of 1,464 AC members, including 876 female members (60%). Each storage house has a storage capacity of 30-60 tons of paddy/rice seed per season, and each drying floor has a sun-drying capacity of 1.8-2.0 tons of wet paddy/rice seeds per day. The construction of 11 small-scale subprojects generated employment opportunities for 616 skilled and unskilled laborers, of whom 249 (40.4%) were females. Specifically, the construction activities engaged 303 unskilled laborers, of whom 188 (62%) were females. It may be noted that 5 of the 11 paddy/rice seed storage houses and 1 FWUC building were constructed utilizing budget savings from the original project.

22. **Subproject associated initiatives.** The program trained 41 potential contractors, including 7 females (17%), for providing laser land levelling (LLL) services and provided 17 contracts to level 2,078 hectares of agricultural field, benefitting a total of 9,718 farmers, including 5,351 (55%) female farmers. A total of 24 private contractors, including 7 females (29%), are continuing to offer land leveling services at their own initiatives in the target provinces, an achievement of 120% of the target. The LLL activity generated employment opportunity for 269 skilled and unskilled laborers, of whom 44 were females (16%). Specifically, the LLL activity engaged 145 unskilled laborers of whom 38 were females (26%).

23. The program provided 13,992 days of training to raise agricultural productivity for extension agents, agro-dealers, farmers, and community members, an achievement of 122% of the target. A total of 373,176 participants, including 193,412 (52%) females, received the training. Specifically, the training covered 352,120 farmers and community members, including 188,164

(53%) females, an achievement of 489% of the target. (see Table 4). All training and extension services included COVID-19 health and safety measures.

**Table 4: Capacity Building to Raise Agricultural Productivity**

Category	No. of capacity building training	No. of Days	Farmers + Community Members			Officials + Private Sector + Others			GRAND TOTAL		
			Total	Female	Female %	Total	Female	Female %	Total	Female	Female %
Original Project	6,422	12,470	279,960	149,472	53	18,846	4,547	24	298,806	154,019	52
AF	1,806	1,522	72,160	38,692	54	2,210	701	32	74,370	39,393	53
<b>Total</b>	<b>8,228</b>	<b>13,992</b>	<b>352,120</b>	<b>188,164</b>	<b>53</b>	<b>21,056</b>	<b>5,248</b>	<b>25</b>	<b>373,176</b>	<b>193,412</b>	<b>52</b>

24. The program conducted 592,395 client days of training, with 58% women participants, on better post-harvest technology, an achievement of 1,185% of the target.

**Table 5: Capacity Building – Post Harvest Technology**

Category	No. of capacity building trainings	No. of days	Participants			Client Days		
			Total	Female	Female %	Total	Female	Female %
Original Project	525	787	29,124	16,762	58	569,929	329,569	58
AF	326	196	12,337	7,204	58	22,466	13,375	60
<b>Total</b>	<b>851</b>	<b>983</b>	<b>41,461</b>	<b>23,966</b>	<b>58</b>	<b>592,395</b>	<b>342,944</b>	<b>58</b>

25. The program covered 235,399 households under the agricultural extension services against the target of 30,000 households, an achievement of 785%.

**Table 6: Capacity Building – Agriculture Extension**

Agencies	No. of Contracts	No. of Households
1. PIO Battambang	29	30,056
2. PIO Kampong Thom	55	154,003
3. PIO Prey Veng	24	35,596
4. MAFF	0	15,744
<b>Total</b>	<b>108</b>	<b>235,399</b>

26. **Output 4 – Rice Value Chain Support Services Enhanced to Improve Quality of Cambodian Rice.** The program achieved or overachieved the performance targets set under the output 4.<sup>14</sup>

27. **Increased availability of quality rice seed.** The program increased the availability and accessibility of quality seeds and created commercial entities such as rice seed production groups/ACs through capacity building in quality seed production and marketing and engaging

<sup>14</sup> All activities under Output 4 were fully completed by 2023 except for the production and sale of certified seeds under the AF which was completed in August 2024.

them in actual seed production and sale. The program produced 2,401.77 tons of certified rice seed of Phka Rumduol and Sen Kra Ob varieties through 4 agriculture stations (2 in Battambang, 1 in Kampong Thom, and 1 in Prey Veng) and 30 ACs (10 in Battambang, 11 in Kampong Thom, and 9 in Prey Veng) and sold them to farmers, ACs and traders for quality paddy production. The program also produced and sold 230.65 tons of registered rice seeds to ACs and seed producer groups, who in turn produced 9,139.21 tons of certified rice seed utilizing the registered seeds and sold them to farmers, ACs, traders, and rice millers for quality paddy production. Thus, the program exceeded annual seed production targets of 2,400 tons by producing 2,493 tons per annum, an achievement of 104%. In addition to equipping the two seed centers in Battambang and Prey Veng (where the SPS facilities are located) with farming and agricultural machinery, the program provided seed cleaning and grading machine and rice seeder to the agricultural station in Kampong Thom and rice seeders to 19 ACs to support quality rice seed production.

**Table 7: Registered and Certified Seed Production**

Year	Registered Seed Production			Certified Seed Production		
	Planted Area (ha)	Quantity of Seed produced (tons)	Average Yield (tons/ha)	Planted Area (ha)	Quantity of Seed to produce (tons)	Average Yield (tons/ha)
<b>Original Project</b>						
Agriculture Stations	98.50	230.65	2.34	0	0	0
ACs with project fund support	0	0	0	246.00	601.77	2.45
ACs with project technical guidance	0	0	0	3,655.68	9,139.21	2.50
<b>Sub-total</b>	<b>98.50</b>	<b>230.65</b>	<b>2.34</b>	<b>3,901.68</b>	<b>9,740.98</b>	<b>2.50</b>
<b>AF</b>						
Agriculture Stations	0	0	0	378.00	1,245.00	3.29
ACs with project fund support	0	0	0	216.00	555.00	2.57
<b>Sub-total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>594.00</b>	<b>1,800.00</b>	<b>3.03</b>
<b>Total</b>	<b>98.50</b>	<b>230.65</b>	<b>2.34</b>	<b>4,495.68</b>	<b>11,540.98</b>	<b>2.57</b>

28. The program exceeded the target for popularizing the adoption of quality certified seed and replacement of seeds every 2 years by farmers, with 71.3% of farmers (27.2% female-headed households) replacing certified seeds every 2 years against the target of 70%, an achievement of 101%. Similarly, the program exceeded the target of farmers leveling their paddy fields with 63.9% of farmers leveling their fields against the target of 30%, an achievement of 213%, and 91,172 farmer households adopted water saving technology by land leveling, an achievement of 304% of the target. The program covered 28.4% of the total area under improved irrigation water use efficiency through land leveling against the target of 15%, an achievement of 189%.<sup>15</sup> The program expanded paddy land with modern production technology by 178,730 hectares, an achievement of 596% of the target.

<sup>15</sup> Project Endline Impact Assessment Report, September 2024. A summary of the report is attached as Appendix 4.

**Table 8: Land with Improved Production Technology**

Activity	Area in Ha.
1. Irrigated area with improved inputs	18,586
2. Registered seed with improved inputs	99
3. Certified seed with improved inputs	4,496
4. Land leveling area	155,535
5. SRP (Single Seed Rice Planting)	15
<b>Total</b>	<b>178,730</b>

29. The program trained 2,267 commercial agricultural inputs suppliers, including 738 (33%) women, on storage and safe use of agricultural chemicals and inputs. The endline survey found that 65% of farmers, including 28% of female-headed households in target provinces, obtained technical advice through these trained input suppliers against the target of 50%, an achievement of 130%.

**Table 9: Inputs Supplier Training**

Province	No. of training	No. of District	No. of Input Suppliers Trained		
			Total	Female	Female %
1. Kampong Thom	23	9	1,047	405	39
2. Prey Veng	30	8	799	229	29
3. Battambang	36	4	421	104	25
<b>Total</b>	<b>89</b>	<b>21</b>	<b>2,267</b>	<b>738</b>	<b>33</b>

30. **Expand and develop technical extension services.** The program provided capacity building on quality rice seed production, seed inspection, Cambodian Seed Policy, national seed standards and seed certification scheme, seed business forums, agricultural and farm machinery utilization, rice post-harvest techniques, rice quality inspection, rice milling technology, sustainable rice production and geographic information system (GIS) to extension staffs of PDAFF and District Agriculture Office (DAO) and representatives from 144 ACs engaged in rice seed production. A total of 16,584 participants, including 8,087 women (49%), participated in such trainings. (see Table 10). The program identified, prioritized, developed, and published 8 TIPs related to paddy production, LLL, and insect pests and diseases, achieving 100% of the target. A total of 10,620 TIPs booklets were distributed for dissemination. TIPs were entered in the FSMIS for wider online dissemination to extension stakeholders in Cambodia.

**Table 10: Capacity Building of Staff and Representative of ACs**

Topics	No. of Programs	No. of days	Total	Female	Female %
1. Seed Production	76	3,099	7,684	3,937	51
2. Farming System (Agriculture Productivity)	5	14	147	36	24
3. Geographic Information System (GIS)	7	23	212	29	14
4. Post-harvest Technology	90	191	2,895	1,527	53
5. Agriculture Machinery	2	10	40	8	20

6. Rice Quality Inspection	11	39	409	147	36
7. Rice Milling Technology	3	9	93	10	11
8. Sustainable Rice Production	4	52	1,530	771	50
9. Environment and Climate Change	55	89	2,222	1,115	50
10. Seed Certification Scheme	5	21	358	162	45
11. Seed Inspection for Seed Inspectors	6	18	442	192	43
12. Seed Law, Seed Inspection, Cambodian Seed Policy and National Seed Standards	6	18	432	129	30
13. Sanitary and phytosanitary (SPS) measure awareness	3	6	120	24	20
<b>Total</b>	<b>273</b>	<b>3,589</b>	<b>16,584</b>	<b>8,087</b>	<b>49</b>

31. **Enhance business management capacities.** The program conducted bulk handling study, implemented the rice millers' capacity development initiative and strengthened the financial and technical management capacity of 34 rice millers, including 3 (9%) female rice millers. Three study tours were conducted for rice millers, MAFF and MEF officials to visit modern rice milling facilities in Cambodia, Thailand, and Malaysia. A total of 42 participants, including 4 females (10%), participated in the study tours. The program trained 124 staff of financial institutions, including 4 female staff (3%), on the needs of farmers wishing to diversify their livelihood sources, an achievement of 124%. The trained staff from the financial institutions, in turn, trained farmers on the requirements of financial institutions in gaining access to credit. The program selected and trained 10 local firms to provide advisory services to rice millers, and 10 rice millers in target provinces have started using independent financial management advisory services, achieving 100% of the target.

32. **Improved access to and reduced cost of financing.** The program conducted 86 business matching or market facilitation activities linking the exporters, rice millers, 144 ACs, input suppliers, MFIs, banks, competent government agencies, and ARDB in strengthening the rice value chain, achieving 411% of the target. These business matching activities resulted in the signing of contracts between (i) Baitong Cambodia, Amru, Brico, and Bayon Heritage companies and ACs for the supply of paddy equivalent to 300,000 tons of milled rice in Battambang, and (ii) ARDB, Chhun Thom, and ACs for the supply of rice seed equivalent to 2,000 tons in Prey Veng.

**Table 11: Market Facilitation Support – Stakeholders' Participation**

Category	No. of ACs	No. of AC member	Female AC member	Female %	Rice Millers/ Traders	Local Authority	Business Sector People	ARDB	Others	Grand Total
Original Project	57	1,140	276	24	32	185	19	3	43	1,422
AF	144	2,457	1,307	53	67	191	869	0	0	3,584
<b>Total</b>	<b>144</b>	<b>3,597</b>	<b>1,583</b>	<b>44</b>	<b>99</b>	<b>376</b>	<b>888</b>	<b>3</b>	<b>43</b>	<b>5,006</b>

33. Besides fully meeting the target indicators, the program

- (1) renovated the National Seed Testing Laboratory at MAFF/General Directorate of Agriculture (GDA) and equipped it with necessary laboratory equipment.

- (2) developed, obtained necessary approval, and published a Rice Seed Production Manual including formats for letter of agreements (LOAs) for all types of seed production - foundation seed, registered seed and certified seed, and farmers field school for seed production - to adopt a holistic approach towards different types of rice seed production through engagement of relevant stakeholders.
- (3) collected \$1.13 million from the quality rice seed sale and deposited the sale proceeds in an escrow account. Of the sale proceeds, MAFF used around \$0.1 million towards equipping the Seed Centers with office equipment and furniture and for the security of the Centers. Currently, there is around \$1.03 million in the escrow account held at MAFF, which will be utilized for quality rice seed production and maintaining the SPS facility operation. MAFF/NIO will have to collect the remaining 20% of the 1,800 tons of seed sale proceeds and transfer the sale proceeds to the escrow account.

34. **Output 5 – Weather-indexed Crop Insurance (WICI) Piloted.** The program exceeded the output 5 performance targets. All activities were fully completed, including the payouts for 2024 excess rainfall and dry spells to the farmers, which were completed by the insurance company in January 2025. The insurance coverage in 2024 was up to 31 October 2024, which was beyond the loan closing date. The program in the PPP agreement between MEF/PMO and the insurance companies addressed such a scenario (Article 4.2 of the agreement) by making the insurance companies fully responsible for claim settlements beyond the project period.

35. The WICI scheme provided small farming households with an option to insure their rice crops against both excessive rainfall and drought, ensuring that they receive compensation for damaged rice crops and reduced yields. The WICI scheme used weather parameters as a 'proxy' or the basis for determining crop yields in compensating the insured farmers for deemed crop losses.

36. The program successfully introduced the WICI scheme in Cambodia to improve weather-related risks. It developed four different types of WICI policies covering different planting seasons and different varieties of rice crops. (see Table 12). The WICI scheme covered 3 different risks – early season dry spell, late season dry spell, and excess rain- for wet season rice crops only, as they are mostly rainfed crops. The WICI premium was fixed at \$10 per hectare for a maximum compensation of \$100 per hectare.

**Table 12: WICI Product Structure and Coverage Period**

Product Structure	Type of Planting	Timing of Planting	Duration of Rice Variety (days)	Insurance Coverage	Duration of Coverage
A	Early	Before 01 May	105-120	01 May to 31 August	4 months (120days)
B	Normal	01 – 31 May	105-120	01 June to 30 September	4 months (120days)
C	Late	01 – 30 June	105-120	01 July to 31 October	4 months (120days)
D	Early	Before 01 May	150-180	01 May to 31 October	6 months (180days)

37. The program conducted four cycles of WICI pilot testing from 2021 to 2024 in 505 villages from Battambang, Kampong Thom, and Prey Veng. A total of 133,198 small farming households, including 71,156 (53%) female households, bought the WICI policy for 160,376 ha against the target of 120,000 ha of rice producing areas, an achievement of 134%. A total of 22 ACs, 2

insurance companies (FORTE Insurance (Cambodia) Plc. and Ly Hour Insurance Plc.), 4 local financial institutions (AMK Microfinance Institution, LOLC Microfinance Institution, AMRET Microfinance Institution, and ACLEDA Bank Plc), and 1 local agribusiness entity (Nelida Agribusiness) participated in the WICI scheme pilot tests in target provinces, an achievement of 152%.

**Table 13: WICI Scheme Pilot Testing**

No.	Policy Purchased by Options	No. of Farmers (HH) Purchased WICI Policy	Female	Female %	Coverage of Rice Area (Ha)
1	A	44,103	20,949	48	58,347
2	B	31,183	15,972	51	37,798
3	C	26,659	14,275	54	28,970
4	D	31,253	19,960	64	35,261
<b>Total</b>		<b>133,198</b>	<b>71,156</b>	<b>53</b>	<b>160,376</b>

38. The insurance company (FORTE insurance company) made insurance payouts amounting to \$741,138.56 to 39,913 farmers covering 45,916 ha impacted by the dry spell and/or excess rainfall from 2021 to 2024.

**Table 14: WICI Policy Sale, Coverage and Insurance Payments by Year**

No.	Year	Total Farmers (HH) Purchased WICI Policy	Female	Female %	Coverage of Rice Area (Ha)	Insurance Payments by FORTE		
						Farmers	Ha	Payouts (\$)
1	2021	675	336	50	887	469	622	12,445.29
2	2022	1,620	797	49	2,424	632	960	14,659.78
3	2023	54,800	28,336	52	80,962	9,702	15,224	331,244.31
4	2024	76,103	41,687	55	76,103	29,110	29,110	382,789.18
<b>Total</b>		<b>133,198</b>	<b>71,156</b>	<b>53</b>	<b>160,376</b>	<b>39,913</b>	<b>45,916</b>	<b>741,138.56</b>

39. Besides fully meeting the target indicators, the program

- (1) established an inter-ministerial technical working group (TWG) comprising members from MEF, MAFF, MOWRAM (Ministry of Water Resources and Meteorology), and CambodiaRe (Cambodia Reinsurance Company, a public sector enterprise) as crop insurance was a new topic in Cambodia, and relevant stakeholders did not have much experience with the WICI scheme. The TWG worked closely with the service providers for WICI piloting and provided guidance on WICI scheme implementation.
- (2) conducted study tours to India, Thailand, Australia, and Europe for the insurance regulators, CambodiaRe, and PMO officials to observe the implementation of a large-scale crop insurance scheme and best practices in implementing such a scheme. These study

tours supported firming up the WICI scheme in the Cambodian context and setting the stage for any future upscaling of the scheme, either geographically or to different crops.

- (3) built the capacity of stakeholders at the national level (officials from relevant ministries, meteorological and weather data agencies, agricultural research institutes, insurance regulators, and CambodiaRe), subnational level (village, commune, district, and province authorities), and private sector level (insurance companies, reinsurance companies, MFIs/financial institutions, and agricultural input suppliers) through intensive and continuous training, awareness generation, and study tours. A total of 1,403 officials and representatives from institutions/agencies, including 485 (35%) females, were covered under the capacity building initiatives.
- (4) created a pool of 64 trainers comprising district and provincial officials. The trainers participated in intensive training on the WICI scheme, including climate risks in Cambodia, agricultural risk management, and WICI piloting. The trained officials conducted sensitization of farmers on the WICI scheme. Similar TOT trainings on the WICI scheme, including WICI products and WICI marketing, were conducted for insurance companies and MFIs/agribusiness entities/ACs, and a pool of trained executives/staff was created.
- (5) provided sensitization training on the WICI scheme to 112,827 farmers, including 60,226 (53%) females, from 505 villages in 3 target provinces. Training posters and training booklets were developed in the local Khmer language to assist the trainers to conduct farmers sensitization on WICI. A total of 65,000 WICI training booklets (in comic book form) were printed and distributed to farmers, MFIs, and agricultural input merchants.
- (6) completed a detailed feasibility study and detailed design of the WICI scheme; developed criteria for the selection of insurance partners through open public advertisements; developed a “WICI Policy Document” detailing the premium, compensation in case of claims, trigger points for compensation, etc.; developed a two-party partnership agreement between MEF/PMO and selected insurance companies, obtained necessary approvals, and deployed it; and procured and installed 23 automatic rain gauges in the target areas.
- (7) supported the insurance companies (FORTE & Ly Hour) in (i) product design, penetration plan, and capacity building; (ii) marketing strategies and setting up claims settlement and dispute resolution cells; (iii) firming up a partnership with Reinsurance Companies; (iv) modus operandi for Insurance Pool, formation of a Pool, and obtaining approval from Insurance Regulators; and (v) developing criteria for the selection of aggregators/distribution channels (MFIs, agribusiness entity, and ACs alliance) for marketing the WICI Policy.

40. **Output 6 – Efficient Program Management and Implementation.** The program successfully developed and implemented a performance monitoring system and collected and reported sex-disaggregated data. The program completed baseline and endline surveys and surpassed goals for workshop information dissemination and engagement of stakeholders. The program conducted 180 capacity building activities for PMO, NIOs, PIOs, and district/commune officials, covering M & E, gender, financial management, and review of program progress, in which a total of 8,140 participants, including 1,983 females (24%), participated. The program emphasized gender inclusivity, knowledge dissemination, and commitment to monitoring & evaluation (M&E) capacity building. A total of 2,067 participants from PMO, NIOs, PIOs, including 477 (23%) females, participated in the M & E capacity building activities, an achievement of 689%

of the target. The program complied with all the specific loans and grants covenants in the financing agreement.

41. The program included progress of gender actions in all its progress reports. The program successfully achieved the gender action plan (GAP) based on ADB guidelines for reporting gender equality results at exit. The program established gender policies and demonstrated commitment to gender equality and inclusiveness in decision-making, management positions, and program implementation. The program completed all 19 GAP actions (100%), achieved 22 of 23 GAP targets (96%), and substantially achieved 1 GAP target.<sup>16</sup> The substantially achieved target required 30% of administrative and technical staff in the executing and implementing agencies to be female, but the program could achieve only 22% female staff (46 females among 212 staff) due to very low representation of women in the technical positions in the ministries and provincial governors' offices. The program promoted gender diversity and mainstreaming and complied with all gender loan covenants.

### C. Project Costs and Financing

42. The program cost at appraisal was \$87.43 million, of which \$55.0 million was financed from ADB's Asian Development Fund resources, \$9.5 million from ADB SCF fund, \$14.6 million from GAFSP trust fund, and \$8.33 million from the government's counterpart contribution.<sup>17</sup> ADB's \$55.0 million financing comprised a \$24.0 million policy-based loan and a \$31.0 million project loan. After the effectiveness of the program, the additional financing amounting to \$3.8 million was received from GAFSP and the government's additional counterpart fund of \$0.12 million to scale up selected activities under the project investment component to expedite recovery from the COVID-19 pandemic and rebuild farmers' resilience to both economic and climate shocks. The total program cost, inclusive of additional financing, was \$91.35 million. At completion, the actual total cost of the program was \$87.76 million, consisting of \$22.69 million for the ADB policy-based loan, \$28.73 million for the ADB project loan, \$9.50 million for the ADB SCF loan and grant, \$18.40 million for the GAFSP grant, and \$8.45 million for the counterpart funding, representing 96.07% of the total program cost. The lower actual amounts at completion were because of the appreciation of the United States dollar against the special drawing right (SDR).

**Table 15: Summary Project Cost by Financiers (Approved vs Actual) (\$'million)**

Source of Funds	Approved Allocation At Appraisal	Approved Allocation At Completion	Actual Cost At Completion				Allocation Balance	
			Cumulative Contract Awards		Actual Cumulative Disbursement			
	Amount	Amount	Amount	%	Amount	%	Amount	%
<b>Policy-based Loan</b>								
ADB Loan 3006-CAM <sup>a</sup>	24.00	22.69	22.69	100.0	22.69	100.0	-	-
<b>Sub-Total</b>	<b>24.00</b>	<b>22.69</b>	<b>22.69</b>	<b>100.0</b>	<b>22.69</b>	<b>100.0</b>	-	-
<b>Project Loan</b>								
ADB ADF Loan 3007-CAM <sup>b</sup>	31.00	28.73	28.12	97.9	28.12	97.9	0.61	2.1
SCF Loan 8271-CAM	5.00	5.00	4.97	99.4	4.80	96.1	0.20	3.9
GAFSP Grant 0349-CAM	14.60	14.60	14.59	99.9	14.59	99.9	0.01	0.1
SCF Grant 0350-CAM	4.50	4.50	4.50	100.0	4.50	100.0	0.00	0.0

<sup>16</sup> A summary of gender equality results and achievements is in Appendix 9.

<sup>17</sup> Counterpart financing comprised resettlement costs, land purchase, taxes and duties, and counterpart staff salaries.

GAFSP Grant 0818-CAM	3.80	3.80	3.78	99.5	3.78	99.5	0.02	0.5
RGC	8.45	8.45	7.12	84.2	7.12	84.2	1.33	15.8
<b>Sub-Total</b>	<b>67.35</b>	<b>65.08</b>	<b>63.07</b>	<b>96.9</b>	<b>62.91</b>	<b>96.7</b>	<b>2.17</b>	<b>3.3</b>
<b>Total</b>	<b>91.35</b>	<b>87.76</b>	<b>85.76</b>	<b>97.7</b>	<b>85.60</b>	<b>97.5</b>	<b>2.17</b>	<b>2.5</b>

<sup>a</sup> Source: ADB. Loan closed on 31 August 2022.

<sup>b</sup> Source: ADB LFIS 30 September 2024. Totals may not sum due to rounding.

43. The total project cost at completion was \$62.91 million. (see Table 16). Appraisal costs are those after the various reallocations to original appraisal estimates of 2013 and 2022 that occurred during both the original project and AF implementation periods. The original project costs, including interest during implementation, were \$59.13 million, or 94% of the total project costs. The AF costs were \$3.78 million, or 6% of the total project. Of the total costs, 9.49% was for agricultural land-use zoning improvement, 65.53% was for climate resilient rice value chain infrastructure development, 8.17% was for rice value chain support services enhancement to improve quality of Cambodian rice, and 6.2% was for weather-indexed crop insurance (WICI) pilot testing. Program management and implementation costs, including support for compliance with policy actions and financial and technical capacity-building, comprised 11.18% of total project costs. The ADB project loan was 44.69% of the total costs, the ADB SCF loan was 7.64%, the ADB SCF grant was 7.15%, the GAFSP grant was 29.20%, and the counterpart contribution was 11.31%. The project loan cost at appraisal and completion is in Appendix 5, and the project loan cost by financiers is in Appendix 6.

**Table 16: Project Cost Summary, Estimated and Actual (\$'million)**

Output	Original Project		Additional Financing		Total Project	
	Appraisal	Actual	Appraisal	Actual	Total	%
1. Agricultural land-use zoning improved	5.01	5.97	0.00	0.00	5.97	9.49
2. Climate resilient rice value chain infrastructure developed	42.51	40.09	1.55	1.13	41.22	65.53
3. Rice value chain support services enhanced to improve quality of Cambodian rice	5.89	3.13	1.86	2.01	5.14	8.17
4: Weather Indexed Crop Insurance (WICI) piloted	2.00	2.17	0.41	0.54	2.71	4.30
5: Efficient program management and implementation	7.07	6.93	0.10	0.11	7.03	11.18
<b>Total project cost (A)</b>	<b>62.49</b>	<b>58.29</b>	<b>3.92</b>	<b>3.78</b>	<b>62.07</b>	<b>98.66</b>
B. Interest During Implementation	0.93	0.84	0.00	0.00	0.84	1.34
C. Service Charges for ADB SCF Loan	0.02	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>63.43</b>	<b>59.13</b>	<b>3.92</b>	<b>3.78</b>	<b>62.91</b>	<b>100.00</b>

#### D. Disbursements

44. **Policy-based loan.** The first tranche of \$12.30 million equivalent (SDR 7.977 million) against \$12.0 million as envisaged at appraisal was disbursed on 19 December 2013 following full compliance with the first tranche conditions, and the second tranche of \$10.39 million equivalent (SDR 7.978 million) against \$12.0 million as envisaged was disbursed on 26 August 2022 upon full compliance with the second tranche conditions. The difference of \$1.31 million was

due to the appreciation of the United States dollar against the SDR. The policy-based loan account was financially closed on 31 August 2022.

45. **Project loan.** The MEF/PMO opened four advance accounts at the National Bank of Cambodia for the original project loans and grants, each with an advance equivalent to the first six-month work plan. Sub-accounts were opened at the NIOs and PIOs at the ACLEDA Bank Plc. for a smooth flow of project funds to the implementing agencies. The statement of expenditure procedures applied was effective, apart from minor issues with processing some invoices. The project encountered difficulties in the initial 4 years due to start-up delays and the need for reorientation of major investment activities. The MEF/PMO mutually agreed with the program implementation consultant (PIC) firm to close its contract in May 2017 and recruited individual consultants in its place. The project achieved significant progress thereafter and by the end of 2022, 83% of the loans and grants funds had been disbursed, and the project was extended to implement the AF. During the AF in 2022, MEF/PMO opened one advance account at the National Bank of Cambodia for the GAFSP grant. The PMO applied similar arrangements as previously for the NIO and PIOs. Implementation of the AF was held up by delays in the receipt of funds by the PMO after the AF became effective. At the project closure, \$62.91 million, including \$7.12 million from the counterpart fund, was utilized, representing 96.7% of the total actual project cost at completion. (see Table 15).

46. The PMO submitted the final expenditures of all loans and grants in December 2024 and liquidated them by ADB by February 2025. The unused advance amount for loan 3007 of \$13,495.46 was returned to ADB on 26 February 2025, and SDR 464,717.35 (\$594,316.42 equivalent) would be cancelled as informed by ADB on 24 March 2025. The accounts for loan 8271 of \$22,934.60, grant 0349 of \$284.78, grant 0350 of \$479.70, and grant 0818 of \$13,911.96 were returned to ADB on 26 February 2025. The accounts for the project loans and grants were financially closed on 3 March 2025. The disbursements and contract awards of loan and grant proceeds are in Appendix 7 and Appendix 8, respectively.

## E. Project Schedule

47. The policy-based loan and the project loans and grants were approved by ADB on 27 June 2013; the agreements were signed on 26 August 2013 and became effective on 13 November 2013. The policy-based loan was utilized for 11 years, from 2011 to 2022, and it was closed on 31 August 2022.<sup>18</sup> All the envisioned 16 key policies, laws, regulations, and guidelines were fully achieved by February 2019 except for one law, the draft law on plant protection and quarantine, which was fully achieved in February 2022.

48. The project loans and grants were implemented for approximately 10 years and 11 months, from 13 November 2013 to 30 September 2024.<sup>19</sup> The implementation period includes

<sup>18</sup> ADB approved a total of eight extensions to the policy-based loan's closing date from 30 June 2017 to 31 August 2022 to allow sufficient time to fully comply with the second tranche conditions. Four extensions, from the third extension to the sixth extension, which are from 30 June 2018 to 31 March 2022, were approved to allow sufficient time for full compliance with the draft law on plant protection and quarantine. The last two extensions, the seventh extension and the eighth extension, which are from 31 March 2022 to 31 August 2022, were approved to allow sufficient time for the government and ADB team to prepare a progress report and release the second tranche.

<sup>19</sup> The project implementation was extended three times: (i) approved on 19 August 2019, for 18 months, from 31 March 2020 to 30 September 2021, to complete project activities under Agricultural Land Use Zoning and implement the reoriented PDS facilities, SPS facilities, and WICI Scheme; (ii) approved on 02 November 2021, for 24 months, from 30 September 2021 to 30 September 2023, to complete remaining original project activities and implement the AF activities; and (iii) approved on 13 July 2023, for 12 months, from 30 September 2023 to 30 September 2024, to implement the AF activities due to delays in fund receipt after the AF became effective.

the AF, which was approved by ADB on 14 January 2022; the grant agreement was signed on 24 March 2022 and became effective on 16 June 2022. The original project encountered initial start-up delays of 2 years, and changes in implementation approaches for PDS facilities, SPS facilities, and the WICI scheme took another 2 years. The replacement of the PIC firm with individual consultants in mid-2017 saw significant progress in the implementation of the original project activities. The implementation of the AF activities was delayed due to delays in fund receipt after the AF became effective. The AF implementation started in January 2023, and the project, including the AF, was closed on 30 September 2024.

## **F. Implementation Arrangements**

49. MEF executed the program and established a PMO led by a program director, with overall guidance provided by the Committee for Economic and Financial Policies. For the policy-based loan, one policy working group for each policy theme was established by the relevant ministries, including MEF, MAFF, MLMUPC, and the Ministry of Industry and Handicraft (MIH).<sup>20</sup> For the project, MOWRAM, MAFF, MLMUPC, and the provincial governors' offices in the three provinces targeted by the program were the implementing agencies. The implementing ministries established NIOs within the ministries, and the target provinces established PIOs within the provincial governors' offices to implement entrusted program activities. The PIOs included staff from governors' offices, PDAFFs, PDOWRAMs, PDLMUPCs (provincial department of land management, urban planning and construction), PDOEs (provincial department of environment), PDPs (provincial department of planning), and district governors offices and supported the PMO and NIOs in conducting their program activities in target provinces.

## **G. Technical Assistance**

50. The project preparatory technical assistance (TA) was implemented at a cost of \$1,500,000.<sup>21</sup> It supported the overall program design by helping the government (i) prepare comprehensive sector analysis to identify critical binding constraints in rice commercialization and resource conservation in Cambodia; (ii) prepare tranche-based policy matrix for policy component; (iii) design project component including pre-screening subprojects for financing; (iv) conduct economic appraisals, financial management assessments, and due diligence on social and environmental safeguards, and (v) prepare cost estimates, feasibility studies and bidding documents for three representative subprojects, and critical goods and works procurement for first 18 months. The TA allowed consultation with stakeholders and resulted in a comprehensive and quality report and recommendations of the President, and the project administration manual.

## **H. Procurement**

51. The program procured all envisioned civil works, goods, and services procurements. No procurement packages were left at the program closing. The program signed a cumulative contract award of \$55.40 million under the project loans and grants (see Appendix 8), of which works amounted to \$26.71 million (48.22%), goods amounted to \$2.03 million (3.66%), consulting services amounted to \$13.69 million (24.72%), and non-consulting services and others amounted to \$12.97 million (23.41%).

<sup>20</sup> Ministry of Industry, Mines and Energy (MIME) was included in the original policy matrix. In 2013, MIME was split into two ministries: (i) Ministry of Industry and Handicraft (MIH) and (ii) Ministry of Mines and Energy. The approval authority is the National Standards Council (NSC), chaired by the Minister of Industry and Handicraft.

<sup>21</sup> ADB. 2012. *Technical Assistance to Cambodia for Agricultural Commercialization and Resource Conservation Sector Development Program*. Manila. TA was administered by ADB.

52. **Consultant recruitment.** The executing agency and implementing agencies recruited all consultants. At appraisal, MEF/PMO was tasked to recruit all the international and national consulting firms, but during implementation, it encouraged the implementing line ministries to take a lead in the recruitment of consulting firms related to their sectors and provided technical backstopping to them for successful recruitment. A total of 11 firms were recruited by the program using the quality and cost-based selection (QCBS) method and the consultants' qualification selection (CQS) method, of which 5 firms were recruited by the MEF/PMO, 4 firms by the MAFF/NIO, and one each by the MOWRAM/NIO and MLMUPC/NIO.<sup>22</sup> With the closure of the PIC contract in May 2017, the MEF/PMO and MAFF/NIO recruited 20 individual consultants, of whom 6 were international consultants and 14 were national consultants. With the effectiveness of the AF, 3 more national individual consultants were recruited. Consultant selections were done as per ADB's Guidelines on the Use of Consultants (March 2013, as amended from time to time) and following the government's Standard Operating Procedures for All Externally Financed Projects/Programs in Cambodia (May 2012). The program signed 49 contracts totaling \$13.69 million, including (i) 16 contracts of \$7.74 million with various consulting firms and associated initiatives, (ii) 6 contracts of \$1.87 million with the international individual consultants, and (iii) 27 contracts of \$4.08 million with the national individual consultants. ADB recruited and engaged an endline assessment firm.

53. **Goods and works.** All goods and works contract packages, including that under the AF, were procured in accordance with the government's Standard Operating Procedures—Procurement Manual.<sup>23</sup> At appraisal, MAFF/NIO was tasked to procure construction of PDS facilities and supply and installation of PDS equipment. During implementation, the PDS activity was reoriented to be established on the land of selected rice millers through concessional loans. Thus, MAFF/NIO handed over the implementation of the activity to MEF/PMO. The program signed 21 works contracts amounting to \$26.71 million, including (i) 9 contracts of \$12.44 million for irrigation subprojects, (ii) 9 contracts of \$14.10 million for PDS and SPS facilities, and (iii) 4 contracts of \$0.17 million for office renovation. The program signed 35 goods contracts amounting to \$2.03 million for agricultural and farm machinery, laboratory equipment, vehicles, motorcycles, office furniture, and equipment.

54. **Performance of consultants, contractors, and suppliers.** The program faced initial start-up delays for 2 years, and the reorientation in implementation approaches of major investment activities, such as PDS facilities, SPS facilities, and the WICI scheme, took another 2 years. The MEF/PMO mutually agreed with the PIC firm to close its contract in May 2017 and recruited individual consultants in its place. The mobilization of individual consultants had a positive impact on the program's progress, and the contract award soared from 11.7% in mid-2017 to 83% by the end of 2022. Despite the project implementation getting affected due to heavy rains and floods in late 2020, 2021, and 2022; continued impacts of the COVID-19 pandemic from 2020 to 2022; and the late start of the AF implementation in January 2023 due to delays in fund receipt, effective project planning led to activities completing on time, and the project was closed by 30 September 2024. Overall, the consultants' performance was satisfactory. All the civil works

<sup>22</sup> QCBS method was used to procure 7 firms, of which 4 firms (PIC firm, WICI feasibility study firm, WICI detailed design and pilot testing firm, and detailed design and construction supervision firm for PDS facilities) were procured by MEF/PMO, 1 firm (rice millers capacity development firm) by MAFF/NIO, 1 firm (feasibility study, detailed design and construction supervision firm for irrigation scheme) by MOWRAM/NIO, and 1 firm (CLUP service provider) by MLMUPC/NIO; and CQS method was used to procure 4 firms, of which 1 firm (baseline survey firm) was procured by MEF/PMO and 3 firms (feasibility study firm of SPS and PDS facilities, bulk handling study firm, and detailed design and construction supervision firm for SPS facilities) by MAFF/NIO.

<sup>23</sup> Ministry of Economy and Finance (May 2012). *Standard Operating Procedures on Procurement for all externally financed projects/programs in Cambodia*. Phnom Penh.

and supply and installation of goods were completed on schedule. All goods and works procured had complied with the specifications and performance standards specified in bidding documents. Overall, the performance of the contractors and suppliers was satisfactory.

## **I. Poverty, Social, and Gender Equality**

55. The program did not intend to specifically target the poorest communities or the poorest households, but subproject beneficiary communities included households below the poverty line. The program promoted rice value chain development and inclusive economic growth. Policy reforms involving local seed production and distribution and standards for agricultural inputs and finished products, and subproject investments reduced poverty among beneficiaries directly through strengthened food security, higher household incomes, and job creation. At completion, the program generated direct employment opportunities for a total of 19,826 unskilled laborers, including 10,640 (54%) females, increased rice surplus of 118.8 kg per household, and decreased food insecurity from 1.03 to 0.07 (footnote 15). A health and safety plan was part of all construction activities, and all training and extension services under the program included COVID-19 health and safety measures.

56. The program was categorized as “effective gender mainstreaming”. The GAP was integrated into the project performance monitoring system and workplans, and progress of gender actions was included in all progress reports. Gender focal points were assigned at the PMO, NIOs, and PIOs, and the GAP was translated into Khmer. Capacity-building training was provided to the management team of each NIO and PIO, gender focal points, M&E officers, and other relevant officers. The trainings enhanced knowledge and skills of officials on key gender concepts, gender-based violence, analysis of gender issues and planning, and contributed to GAP implementation and reporting. The GAP covered 19 actions and 23 targets (with 5 AF targets), and the DMF included 13 gender indicators (with 2 AF indicators). At program completion, all 19 actions (100%) in GAP were completed, and 22 (96%) of 23 targets were 100% achieved, and one target was substantially achieved. All gender loan covenants were complied with, and 12 of 13 DMF gender performance indicators were 100% achieved, and one target was substantially achieved.<sup>24</sup> Thus, the GAP implementation is considered successful in delivering gender equality results.

57. At completion, the program achieved significant gender results, including: (i) 55% of members (113 out of 204) in construction subcommittees were women; (ii) 54% of advisory committee members (45 out of 84) were women; (iii) 41% of unskilled laborers (3,989 out of 9,777) employed in labor-based civil works were women; (iv) 67% of laborers (15,488 out of 23,243) in the seed production program were women; (v) 53% of administrative staff (88 out of 167) at PDS and SPS facilities were women; (vi) 34% of skilled and unskilled workers (499 out of 1,478) at PDS and SPS facilities were women; (vii) 48% of FWUC management committees (106 out of 223) were female; (viii) 52% of FWUC beneficiaries (44,321 out of 84,659) were women and received training in group management and irrigation operations; (ix) 60% of AC members (5,076 out of 8,450) were women; (x) 72% of female AC committee members (452 out of 624) and 69% of total AC committee members (841 out of 1,218) received training on business plan development and gender-based violence; (xi) 53% of farmer households (71,156 out of 133,198) covered under the WICI scheme were women; and (xii) 193,412 (52%) of 373,176 training participants were women. A summary of gender equality results and achievements is in Appendix 9.

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<sup>24</sup> The substantially achieved target in GAP and DMF is the same. The program achieved 22% female administrative and technical staff in the PMO, NIOs, and PIOs against the target of 30% due to very low representation of women in the technical positions in the ministries and provincial governors’ offices.

## J. Safeguards

58. In accordance with ADB's Safeguards Policy Statement (2009), at appraisal, the original project was classified as Category B for both environment and involuntary resettlement and Category C for indigenous peoples, and the AF was classified as Category B for environment and Category C for both involuntary resettlement and indigenous peoples. The categorization remained the same at completion. The program established a grievance redress mechanism for addressing conflicts and appeal procedures regarding eligibility and entitlements, as well as the implementation of the resettlement activities, in a timely and satisfactory manner. All subprojects formed and functionalized a grievance redress mechanism and grievance redress committee. Capacity-building training was provided to relevant grievance redress committee members from contractor representatives, local and subnational authorities, and implementing ministry officials, and the grievance redress mechanism was disseminated to villagers and beneficiaries before civil works commencement. The program complied with all environmental and involuntary resettlement safeguards requirements and regularly submitted safeguards and environmental monitoring reports. There were no outstanding issues related to the environmental management plan, involuntary resettlement, and indigenous peoples safeguards, or unresolved complaints at completion.

59. **Environment.** An initial environmental examination, including an environmental management plan, was prepared and disclosed for each civil works subproject, such as 9 irrigation subprojects, 5 PDS facilities, and 2 SPS facilities, addressing the environmental and safety concerns related to construction works. For small-scale infrastructure subprojects such as 11 paddy/seed storage houses and drying floors for the ACs and one FWUC office building, which were categorized as C for the environment, initial environmental examinations, including an environmental code of conduct, were prepared and disclosed. Each environmental management plan or environmental code of conduct included an environmental, health, and safety plan. The COVID-19 pandemic risk management requirements were incorporated into these documents. The environmental management plan, or environmental code of conduct, was attached to each bidding and contract document before civil works commencement. Of the 28 civil work sites, 9 irrigation subprojects were on public land, 2 SPS facilities were inside the government-owned agricultural station's land, and the remaining 17 subprojects, including PDS facilities, were on private land. Thirteen environmental safeguards monitoring reports, from January 2017 to September 2024, and an environmental safeguards completion report were submitted and disclosed on ADB's website. The ADB environment staff and consultants participated in all review missions and provided technical guidance to ensure compliance with the ADB's safeguards policy statement environmental principles requirements.

60. **Involuntary resettlement.** Of the 28 civil works subprojects implemented by the program, 9 irrigation subprojects were categorized as B for involuntary resettlement, and the remaining 19 subprojects, including 5 PDS facilities, 2 SPS facilities, 11 AC storage houses, and 1 FWUC office building, were categorized as C. The General Department of Resettlement/Inter-ministerial Resettlement Committee prepared resettlement plans for each irrigation subproject and disclosed them on ADB's website. The department signed contracts with 1,537 affected households of 9 irrigation subprojects between December 2017 and December 2019 and completed compensation payments and entitlements to the affected households between March 2018 and January 2020. The total cash compensation paid to the affected households of irrigation subprojects was \$772,663.15. The program prepared 9 due diligence reports for the remaining 19 subprojects and disclosed them on ADB's website between December 2019 and January 2024. The PDS facilities were established on private land owned by the rice millers, the SPS facilities were established on state-owned agricultural stations' land, and 11 AC storage houses

and 1 FWUC office building were established on private land owned by the ACs/FWUC. There were no requirements of land acquisition, and no involuntary resettlement impact was involved with the sub-projects. There was no impact on economic activities and no restrictions on access to land use. Site screenings and consultations were conducted in all civil work sites to ensure compliance with ADB safeguard policies. Training was conducted on how to use the complaint forms and resolution procedures. No complaint was received during the construction and rehabilitation of the subprojects. Twelve internal social safeguards monitoring reports, from January 2018 to September 2024, and a social safeguards completion report were submitted and disclosed on ADB's website. The ADB social safeguards staff participated in all review missions and provided technical guidance to ensure compliance with the ADB's safeguards policy statement requirements.

61. **Indigenous Peoples:** There were no indigenous peoples affected by the project areas except a very few ethnic minority households who were already integrated into mainstream society.

## **K. Climate Change**

62. The program deployed a two-pronged approach to address climate change impacts. The policy-based initiatives addressed local seed production and distribution and land and water use practices, and the project initiatives implemented well-sequenced investment activities that enhanced climate resilience and improved climate adaptation measures to minimize risk. The program (i) conducted agro-ecosystem analyses, identified cropping suitability on various types of agricultural land, and provided alternative cropping windows to reduce farmers' risk from climate change; (ii) promoted local climate-adapted rice seed production and sale, resulting in a more resilient crop and achieving incremental yield that reduced the exposure to risk and provided the incentive for change; (iii) upgraded technical extension material addressing the impact of climate change to guide rice production in four rice growing systems; (iv) improved water use efficiency through upgrading irrigation infrastructure to accommodate more rapid flow of flood water, installed off-take and water management structures ensuring efficient and equitable water distribution, and provided capacity building to FWUC on climate resilience and operation and maintenance of the irrigation facilities; (v) demonstrated the benefits from land leveling to increase water productivity, and reduce energy consumption and costs; (vi) established paddy post harvesting facilities and provided capacity building and management training to rice millers to accommodate the impacts from climate change by improved stock management and efficiencies of mill operations; and (vii) introduced WICI scheme as a risk sharing mechanism to promote adoption of modern production technologies and reduce the risk associated with quality paddy production. The program enhanced the government's capacity to address the resilience of the agro-ecological system and created a solid foundation for promoting investment of households and private sector entities in rice commercialization to enhance food security while maintaining the integrity of the natural resource base.

## **L. Monitoring and Reporting**

63. All covenants were relevant, and all were generally complied with. No covenant was modified, suspended, or waived. All program monitoring reports, including the financial management action plan, GAP, and environmental and social safeguards, were reported regularly. The audited project financial statement reports were submitted in a timely manner. Relevant implementation documents, such as gender checklists, were translated into the Khmer language and oriented to staff. The executing agency and implementing agencies' financial management capacity were adequate and complied with statutory requirements. A final project

workshop was conducted on 27 September 2024 to share the lessons learned and benefits and impacts of the program. The project performance, monitoring, and reporting were managed well. The project baseline survey, midterm evaluation, and endline impact assessment were undertaken. The status of compliance with the loan covenants is in Appendix 10.

## II. EVALUATION OF PERFORMANCE

### A. Relevance

64. The program is rated *highly relevant* to the government's development objectives and agricultural sector priorities for promoting food security through enhanced agricultural productivity and commercialization and achieving sustainable and inclusive economic growth in rural areas. The program strongly aligned with the government's Strategy on Agriculture and Water (2011-2013) and the Rice Policy, and ADB's CPS, 2011-2013, and the Agriculture and Natural Resources Sector Assessment Strategy and Roadmap (footnotes 3 and 4). The additional financing was aligned with the government's priorities in addressing the socioeconomic impacts of COVID-19 and avoiding disruptions in the agricultural supply chains that threatened food security and ADB's CPRO under the Countercyclical Support Facility. The program design focused on critical reforms needed to address persistent and systemic constraints in rice commercialization by (i) achieving a conducive policy and enabling environment for rice commercialization and (ii) strengthening vertical linkages and horizontal clusters along, and within, the rice value chain. The DMF results chain was sound. The policy component was strongly aligned with the interventions under the project component that addressed the constraints concerning (i) low paddy productivity and consistency in the quality of milled rice, (ii) weak supply chain and weak market linkages for rice, (iii) indebtedness due to vulnerability to climate shocks, and (iv) limited access to technology. The DMF was revised to adapt to the changing situation, which did not affect the program outcome but safeguarded the sustainability of program benefits (para. 9).

65. The program was among the first initiatives in Southeast Asia that envisioned the commercialization of rice that addresses the resilience of its underlying agroecological system. Policy actions have given impetus to fundamental reforms and subsequent investments by the government, private sector, and development partners, such as seed development by the local private sector, improved access to credit by paddy producers through MFIs and by rice millers/exporters through ARDB, expansion of CLUP through World Bank's Land Allocation for Social and Economic Development Project III<sup>25</sup>, climate risk instruments through ADB's Climate-Friendly Agribusiness Value Chains Sector Project (CFAVC)<sup>26</sup>, and continuation of the WICI scheme by the insurance company through Insurer Resilient Investment Fund and MOU with Nurture Project, among others. The program became innovative in its approach to establishing PDS facilities, introducing the WICI scheme, piloting laser land leveling activity, creating the FSMIS national database for the storage, management, and dissemination of CAEA and TIP data, and introducing market facilitation or business matching forums, which were transformative. All such changes strengthened the attainment of the program objective and beyond.

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<sup>25</sup> <https://projects.worldbank.org/en/projects-operations/project-detail/P171331>.

<sup>26</sup> ADB. 2018. *Report and Recommendation of the President to the Board of Directors: Proposed Loan and Administration of Loan and Grant to Cambodia for Climate-Friendly Agribusiness Value Chains Sector Project*. Manila.

## B. Effectiveness

66. The program is rated *highly effective*. The policy actions and the project associated investments contributed to the achievements of the program outcome indicators. The program achieved the envisioned outcome of enhanced production of quality rice in Cambodia while preserving the natural resource base. All four DMF outcome indicators were achieved and exceeded the targets.

67. **Outcome indicator 1:** Paddy production increased from 8.0 million tons in 2012 to 9.5 million tons by 2018. The program boosted Cambodia's paddy production from 8.0 million tons in 2012 to 12.6 million tons in 2023, achieving 133% against the target. The accomplishment reflected strategic investments by the program in irrigation, post-harvest infrastructure, improved seeds, advanced farming techniques, and strengthening of ACs and FWUCs. The program strengthened Cambodia's rice sector, ensuring sustainable growth and resilience in both domestic and export markets.

68. **Outcome indicator 2:** Milled rice exports increased from 200,000 tons in 2011 to 0.7 million tons in 2023. The milled rice export in 2020 was 0.69 million tons, and the wet paddy export was 2.89 million tons, equivalent to 1.85 million tons of milled rice. The combined export was 2.54 million tons of milled rice equivalent, an achievement of 363% against the target. If solely milled rice is considered, the achievement would be 99% of the target. In 2023, the milled rice export was 0.66 million tons, and the wet paddy export was 4.0 million tons, equivalent to 2.56 million tons of milled rice. The combined export was 3.22 million tons of milled rice equivalent, an achievement of 460% against the target. If solely milled rice is considered, the achievement would be 94% of the target. It may be noted that exports from 2020 to 2022 suffered due to the impact of COVID-19. The milled rice exports in 2023 achieved 3% growth compared to 2022.

69. **Outcome indicator 3:** Guidelines for establishing agricultural land use zones completed by 2020. The program developed guidelines for establishing agricultural land use zones by February 2019, achieving 100% of the target.

70. **Outcome indicator 4:** Commune land use plans incorporating agro-ecosystem analysis developed for all target communes by 2022. The program developed commune land-use plans incorporating agro-ecosystem analysis for all 90 target communes by 2022, achieving 100% of the target.

71. Besides the DMF outcome indicators, the program also achieved

- (1) **Reduced Post-Harvest Losses.** Post-harvest losses significantly decreased within the program area from 15% to 9.9%, achieving a 5.1% reduction, or 102% of the target.
- (2) **Reduced Vulnerability to Climate Change.** The program's impact on reducing vulnerability to climate change was notable. The program beneficiaries' vulnerability index was lower than that of the non-program areas, despite heightened exposure to climate-related impacts such as typhoons and droughts. The impact analysis (difference in difference) revealed a reduction in vulnerability by -4.847, highlighting the effectiveness of the program's climate resilience measures.
- (3) **Improved Food Security.** The program beneficiaries experienced a significant increase in rice surplus, reaching 118.8 kg per household by the endline evaluation, compared to a rice shortage of -63.4 kg at baseline. The non-program area, on the other hand, saw a

decline in the rice surplus from 287.3 kg to 114.4 kg. The program's impact on rice surplus was estimated at 355 kg, showing substantial improvements in food security. The Food Insecurity Experience Scale (FIES) analysis demonstrated a significant reduction in food insecurity within the program areas, with FIES scores decreasing from 1.03 at baseline to 0.07 at the end line (footnote 15).

- (4) **Seed Sale Proceeds.** The program collected \$1.13 million from the quality rice seed sale and deposited the sale proceeds in an escrow account. The sale proceeds are used for equipping the seed centers with office equipment and furniture, for quality rice seed production and sale, and to act as seed capital for the operation of SPS facilities.
- (5) **Employment generation.** The program generated direct employment opportunities for a total of 38,494 skilled and unskilled laborers, including 20,323 (53%) females. Specifically, 19,826 unskilled laborers, including 10,640 (54%) females, were employed under the program. The laborers were directly employed in the rehabilitation of the irrigation scheme, PDS construction and operation, SPS construction and operation, land leveling activities, AC storage house and FWUC building construction, and the seed production program.
- (6) **FSMIS for online dissemination of CAEA.** The program launched the national online FSMIS database for the storage, management, and dissemination of CAEA and technical information package data to extension system stakeholders across Cambodia. The trained officials are maintaining the online database beyond the program period.

72. At the output level, of the 29 output targets, 28 were achieved and 1 was substantially achieved (paras. 10–41 and footnote 24). The changes were made to the DMF targets not because of the design inefficiency but to (i) reflect additional new targets and revision of a few targets due to the AF and (ii) adapt to implementation challenges encountered, alignment with government regulations issued during project implementation, results of feasibility studies, and the impact of the COVID-19 pandemic. All the GAP and policy actions and targets were implemented and fully achieved. These contributed to gender equality through the overall program effectiveness and its alignment with Strategy 2030's operational priorities 2.3.1 by strengthening leadership capacities in 79% of female AC committee members, 2.5.3 by implementing WICI with 50% of insured rice farmers (i.e., policyholders) being women, 3.2.3 by providing financial preparedness instruments with 160,376 hectares of paddy areas covered by WICI, 5.1.1 by establishing paddy/seed warehouses and drying yards in 11 ACs with 60% female AC members, and 5.3.2 by providing quality seeds and sustainable mechanization to mitigate labor shortage. There is no evidence that the achieved target levels have had adverse environmental or social impacts. No significant resettlement or safeguard issues compromised effectiveness.

### C. Efficiency

73. The program is rated *highly efficient*. It was implemented smoothly and achieved all the expected outcomes and outputs. The program cost at completion was \$87.76 million. The program disbursed \$85.60 million, of which \$22.69 million was for policy development and \$62.91 million for project activities, an achievement of 98% contract awards and disbursement.

74. The program provided substantial net benefits and a positive impact on investment returns, indicating its economic viability. Efficiency was examined through a benefit-cost analysis (BCA) and using financial criteria like net present value (NPV), internal rate of return (IRR), and

benefit-cost ratio (BCR). The program was assessed to provide annual benefits from \$14.849 million to \$57.638 million in different phases, resulting in a total net benefit of \$72.487 million. Benefits, valued at \$137.582 million, came from increased paddy rice production and other factors. Discounted net benefits were \$18.043 million, showing a positive NPV. The program had an IRR of 36% and a favorable BCR of 1.4. The program proved resilient in the sensitivity analysis, maintaining positive results even with a 10% decrease in benefits and a 10% increase in costs (footnote 15).

Criteria	Normal BCA	Result of Sensitivity Analysis
Net Present Value (NPV) (in thousand \$)	18,043	7,472
Internal Rate of Return (IRR)	36%	23%
Benefit Cost Ratio (BCR)	1.4	1.15

75. The policy-based loan was extended for a cumulative period of 5 years and 2 months, and the project loan was extended for a cumulative period of 4.5 years because of the AF received in 2022 and reasons described in paragraphs 47 and 48, respectively. Despite the implementation extension, there were no cost overruns, and additional inputs were provided expeditiously. No additional cost for consulting budget and government counterpart funding was provided even if the AF activities were implemented over 3 years (2022-2024). The consulting services cost at program closing was \$6.362 million vis-à-vis \$7.182 million planned at appraisal. Proper management of individual consultants led to savings of \$0.82 million, which was reallocated for the expansion of the WICI scheme and implementation of capacity-building activities. Budget savings from PDS procurement and consulting services were used for the construction of additional infrastructure, such as 5 AC paddy storage houses and drying floors and 1 FWUC office building. The MEF/PMO overcame the constraints of the initial 4 years and expedited the completion of the program. The benefits generated by the program outputs were achieved at the least cost, as these were an integral part of the Strategy on Agriculture and Water and the Rice Policy. Considering the substantial benefits of the program vis-a-vis the costs, the project achieved the expected efficiency.

#### D. Sustainability

76. The program is rated *likely sustainable*. The reform initiatives, such as the promotion of local seed production and distribution, the strengthening of agricultural land management, the strengthening of agricultural cooperatives, and the facilitation of domestic trading and export of milled rice, have been carried out under the relevant ministries' mandates. The government remains strongly committed to continuing the program activities as they are fully aligned with the government strategies on critical development issues: (i) enhancement of the agriculture sector (diversification, value-added, and productivity), (ii) development of physical infrastructure, (iii) private sector development and employment generation, and (iv) capacity development and human resources development, and in line with the Agriculture Development Plan, 2021-2028, National Agricultural Development Policy, 2022-2030, and the Pentagonal Strategy - Phase 1 that focuses on five strategic priorities: Growth, Employment, Equity, Efficiency, and Sustainability in Public Services.

77. The program invested in ministries, institutions, private partners, technology, community, and human resources development, thereby stimulating engagement, implementing self-sustaining activities, and ensuring continuity. Concessional loans to rice millers and their technical and financial management skills enhancement led to modernization and expansion of rice milling sector; introduction of WICI and capacity building of insurance sector stakeholders and community in design and implementation of WICI led to understanding of crop insurance and

drawn attention of donors to invest in more research and pilot schemes for other crops and geography; establishment and equipping the seed centers and capacity building of MAFF staffs on technical and financial management of the centers led to modernization and expansion of quality rice seed sector; capacity building of contractors and engaging them in providing laser land levelling services led to more private sector investment and establishment of commercial entities; and capacity building of rice seed production groups/ACs in quality seed production and marketing and engaging them in actual seed production and sale created commercial entities and increased the availability and accessibility of quality seeds. All these indicate a positive trajectory for sustainability.

78. The national and subnational stakeholders are confident in their qualifications and training, reflecting strengths in personnel training and readiness. Technical sustainability is strong across the ACs and FWUCs, crediting the training provided by the program. They have access to necessary equipment and facilities, which support their continued technical capabilities and enhance their technical sustainability. Despite heavy rains and floods in late 2020, 2021, and 2022, the rehabilitated irrigation infrastructure remained unaffected, suggesting that construction quality was generally good and resilient to floods. The growing demand for high-quality seeds, expansion of the export market, and potential increases in rice production underscore the program's potential to enhance economic growth and food security. The program's economic impact is substantial, with total benefits of \$137.582 million and net annual benefits of \$57.638 million over 5 years, leading to a total net benefit of \$72.487 million. The implementation cost of \$62.91 million resulted in a favorable NPV of \$18.043 million, an IRR of 36%, and a BCR of 1.4. Even with a 10% decrease in benefits, the program's economic viability remained strong, demonstrating its efficiency and positive return on investment.

79. The MAFF/Cambodian Agricultural Research and Development Institute, rice millers, and ACs have continuously developed their capacities to operate and maintain the SPS facilities, PDS facilities, and storage houses effectively and can, therefore, ensure that the assets will sustain the program investments. The rehabilitated irrigation subprojects have been registered in the asset inventory of MOWRAM, and therefore the operation and maintenance cost requirements may remain unconstrained. The program is assessed to be environmentally sustainable because of a commercial rice value chain that reduces pressure on natural resources and has no adverse environmental impacts. The program is assessed to be socially sustainable as it is contributing to inclusive economic growth.

## **E. Development Impact**

80. The program's impact is rated *highly satisfactory*. The temporal, spatial, and institutional impacts of the program were substantial and contributed to improving household and national food security and expanding rice exports. The program achieved the envisioned impact of increased net incomes of stakeholders along the rice value chain. All four DMF impact indicators were achieved and exceeded the targets.

81. **Impact indicator 1:** Average farming household incomes increased from \$400 in 2010 to \$700 by 2020. The program significantly contributed to improving average farming household incomes, increasing from \$400 in 2010 to \$792 by 2020 based on the Cambodia Socio-economic Survey, which is 113% above the target. The endline survey conducted in 2024 reported average farming household incomes of \$773 in 2023, which is 110% above the target. The endline report revealed that the program beneficiaries earned a substantially higher income (\$9,273 per annum) than that of the non-program areas (\$2,958 per annum), underscoring the effectiveness of the program's interventions.

82. **Impact indicator 2:** Revenue of rice exporters increased from \$100 million in 2012 to \$600 million in 2020. Cambodia's rice export revenue in 2020 reached \$1.26 billion, significantly surpassing the target of \$600 million, achieving 210% of the target. Based on the MAFF report, of the total, 43% came from milled rice exports, valued at \$538.80 million, while 57% was from paddy rice exports, valued at \$723.48 million.<sup>27</sup> The endline survey conducted in 2024 reported Cambodia's rice export revenue in 2023 reached \$1.786 billion, achieving 297% of the target. Of the total, 26% came from milled rice exports, valued at \$466 million, while 74% was from paddy rice exports, valued at \$1.32 billion. The remarkable overachievement highlights the success of strategies implemented to boost revenue generation in the rice export sector.

83. **Impact indicator 3:** Net profit of rice exporters increased from \$30 million in 2012 to \$180 million by 2020. The program aimed to raise the net profit of rice exporters from \$30 million in 2012 to \$180 million by 2020. While specific data for 2020 is unavailable, profit analysis for 2023 provided the insights. In 2023, Cambodia's total rice exports generated \$1.786 billion, with average profit from milled rice estimated at \$81.55 million and average profit from paddy rice estimated at \$99 million. The combined aggregate profit is estimated at \$180.55 million, achieving 100% of the target.

84. **Impact indicator 4:** Average rice yields increased to more than 3.50 t/ha by 2025. The program aimed to raise rice yields from 3.25 tons per hectare in 2020 to 3.50 tons per hectare by 2025. The actual achievement was 6.54 tons per hectare, representing 187% of the target. The average yield achieved in non-program areas was 3.48 tons per hectare. The program's interventions, including improved cultivation practices, use of quality rice seed, and post-harvest infrastructure, significantly boosted the productivity.

85. Besides the DMF impact indicators, the program had a beneficial impact on institutions at the micro level by strengthening ACs, FWUCs, and seed production groups; at the meso level, by improving commune, district, and provincial administration planning processes; and at the macro level, through policy development initiatives. The program promoted public-private partnerships and private sector participation in investment activities such as PDS facilities, SPS facilities, irrigation rehabilitation, the WICI scheme, and land leveling and provided capacity building to them, thus leveraging significant investment from the private sector. For example, the additional investments attracted from the five rice millers due to PDS concessional loans were \$13.37 million, which is 267% of the target. The program incorporated wider development objectives by strengthening stakeholders along the whole value chain and enhancing institutional capacity.

86. **Strategy 2030 Operational Priorities.** Contribution to strategy 2030 operational priorities had been achieved. The contribution to strategy operational priorities is in Appendix 11. The program contributed to the strengthening of women leadership in ACs, FWUCs, and construction committees, and they are now actively participating in the establishment of modern ACs that aim to become independent commercial entities. ADB's succeeding projects are building on the reforms under the program and continuing to strengthen public-private partnerships for agricultural commercialization, agribusiness, and market linkages.<sup>28</sup> The private partners are continuing the practice of prioritizing women farmers under their crop insurance scheme. The government is continuing to address climate change through climate risk instruments such as climate-smart agriculture, land use plans, promotion of local climate-adapted rice seeds, and crop

<sup>27</sup> Press Conference by MAFF Minister, News article from Phnom Penh Post, dated 4 January 2021.

<sup>28</sup> The Climate-Friendly Agribusiness Value Chains Sector Project (CFAVC) was approved on 29 June 2018 and pipeline projects such as the Climate Resilient Smallholder Economic Development Project (CSEDP) and the Agriculture Transformation and Acceleration Project (AgriTAP).

insurance; and promoting rural development and food security through improved access to quality seeds and agricultural technologies, drying and storage facilities, strengthening market linkages, and capacity building.

#### **F. Performance of the Borrower and the Executing Agency**

87. The government, executing agency, and implementing agencies exhibited a high level of ownership of the program, from design through all stages of implementation. The government and executing agency proposed and initiated changes to reorient major project investment activities as these became desirable to address changing conditions. The executing agency initiated changes in consulting services from PIC firm to individual consultants, which proved to be a blessing in disguise as the program implementation took off and even negated the impact of COVID-19 and floods on implementation during 2020-2022, and the program received the AF to implement additional activities from 2022-2024. There were no implementation issues or major problems with procurement or disbursements, despite the involvement of many line ministries, the participation of a diverse range of ACs, FWUCs, private sector entities, insurance companies, and financial institutions, and the broad physical coverage of the program. All covenants were complied with; the extensions needed to complete the program were mainly to accommodate the AF and initial start-up delays. The short period for implementation of the AF, 1.5 years, was compromised due to delays in fund receipt after the AF became effective.

88. The program exceeded almost all performance targets. Counterpart funds were made available on time. The MEF/PMO established a thorough project performance monitoring system, collected gender-disaggregated data, applied comprehensive targeting procedures, and developed appropriate and innovative legal arrangements for engaging with ACs for seed production, with ARDB for concessional loan collection, with rice millers for establishing PDS facilities, with insurance companies for WICI implementation, and with beneficiary households for WICI policy documents. The program completed all staff training and project management capacity development. As the executing agency, MEF had a relatively strong capacity to coordinate and implement multisector interventions, partly because of the commitment and continuity of the senior officials. The performance of the borrower and executing agency is rated *highly satisfactory*.

#### **G. Performance of the Cofinanciers**

89. The GAFSP and SCF's financings were adequate and provided opportunities for innovations such as the incorporation of climate resilience features in civil works, implementation of the WICI scheme and climate risk instruments, strengthening the capacity of private sectors and beneficiary households, improved effectiveness of implementing agencies, substantive cost sharing for training and studies, and other interventions contributing to the achievements of the overall program. GAFSP responded positively and promptly to the request for additional financing under the program. The GAFSP and SCF officials were collaborative and conducted missions and meetings. The cofinancier's performance is rated *highly satisfactory*.

#### **H. Performance of the Asian Development Bank**

90. ADB responded promptly to the government's request to support the Rice Policy and articulate pathways towards enhancing agricultural commercialization. The SDP modality was entirely appropriate to address key legal and regulatory constraints and non-regulatory binding constraints for agricultural commercialization. The financing modality of loan and grant was appropriate in the country's circumstances, and the design and formulation of the program

contained necessary and sufficient interventions to achieve the stated objectives. ADB responded positively to requests for reorientation of major project investment activities to address changing conditions such as revised implementation approaches for PDS facilities, SPS facilities, and the WICI scheme, and to the changes in consulting services from PIC firm to individual consultants. ADB's dialogue with the GAFSP was constructive in the design and formulation of the program, including the AF, and in accessing substantial finance to build upon the objectives and achievements envisioned under the program. ADB supervision missions for the program were timely and frequent, and there was a high level of staffing continuity throughout the 11-year implementation period. Delegation of project administration to the Cambodia Resident Mission in March 2016 helped to build and maintain relationships with the government and other agency staff. ADB's performance is rated *highly satisfactory*.

## I. Overall Assessment

91. The program is rated *highly successful*, based on the ratings of *highly relevant*, *highly effective*, *highly efficient*, and likely sustainable. The program achieved all the outcome targets and most of the output targets despite the COVID-19 pandemic and floods during 2020-2022. It was implemented within the extended schedule and budget.

<b>Overall Ratings</b>	
<b>Criteria</b>	<b>Rating</b>
Relevance	Highly relevant
Effectiveness	Highly Effective
Efficiency	Highly efficient
Sustainability	Likely sustainable
<b>Overall Assessment</b>	Highly successful
Development impact	Highly satisfactory
Borrower and executing agency	Highly satisfactory
Performance of ADB	Highly satisfactory

ADB = Asian Development Bank.  
Source: Asian Development Bank.

92. The program succeeded because of the clear need and the high level of government ownership from the outset. It was executed by an institution with experience working with ADB and overseen by committed MEF officials who were continuously deployed to the tasks. ADB supervision was of high quality and was maintained over a long period, with both personnel continuity and close relations with government agencies sustained throughout implementation. The mobilization of individual consultants also helped to ensure the quality of technical management. The strong performance of the executing agency and ADB more than compensated for the program's relatively complex implementation arrangements and wide geographical scope and the varied stakeholders involved with the program. The government and ADB's willingness to be flexible to reorient major investment activities led to the investment having a greater long-term impact than would otherwise have been the case.

93. The program was efficient and economically viable even after a sensitivity analysis. The impacts of the program underscore its significant contribution to enhancing farmers' income. The program focused on quality paddy rice production and successfully empowered farmers with enhanced knowledge, enabling them to make informed decisions and enhance yields. The capacity-building efforts of rice millers bolstered milled rice production, ensuring a more efficient milling process. The presence of the processing and storage facilities and capable ACs, FWUCs, and the private sector further enhances the rice value chain, facilitating the production,

processing, and export of high-quality rice. Growing demand for quality seeds, expanding export markets, and projected increases in rice production present avenues for growth. Available technologies and growing interest in sustainable practices offer opportunities for enhanced productivity and efficiency. The rising awareness of crop insurance and the stable domestic market for rice further contribute to the program's success. The program supported and accelerated the efficient and effective implementation of the government's Strategy on Agriculture and Water and the Rice Policy.

### **III. ISSUES, LESSONS, AND RECOMMENDATIONS**

#### **A. Issues and Lessons**

94. No major program related issues remain unsolved. The key lessons from implementation of the program are as follows:

- (1) Innovation and putting forward those innovative ideas in proper perspective are important. The program originally had its planned activities but modified itself to cater to the need of evolving situations without compromising its basic principle during the implementation of the program. For example: (i) PDS facilities established through concessional loan and following public-private partnership approach attracted significant additional capital investment by the rice millers, whereas the program was originally supposed to establish the PDS facilities on public land and leased to private sector that generated less interest among the private partners; and (ii) FSMIS database designed and developed is acting as a national online database for the storage, management, and dissemination of CAEA and technical information package data to agricultural extension system stakeholders across Cambodia, which was not originally envisioned under the program. A pool of trained officials is updating the information and maintaining the online database at MAFF.
- (2) Capacity building of private sector and involving them in implementation, supervision and monitoring yields rich dividend by ensuring sustainability and bringing ownership. For example: (i) Capacity building of the land leveling contractors and engaging them in laser land leveling activities resulted in their investment in the laser machinery and continuation of the services at their own initiatives; and (ii) WICI scheme designed benefited farmers as well as insurance companies and created a conducive policy environment that facilitated adoption of WICI. The insurance company is continuing to implement the WICI beyond the program period.
- (3) Efficient and judicious use of available budget not only provides better benefits from an investment but also increases the beneficiary coverage with the same resources. The original target beneficiary for the program including the AF was 72,000 rice farming households. The program was able to cover 100,095 households with 51% women. In addition, the program provided training to raise agricultural productivity to 352,120 farmers and community members with 53% female against the target of 72,000 farmers.
- (4) Strong ownership, initiatives and effective management from the executing agency and positive support from the implementing agencies; full, quick and flexible support of

ADB/co-financiers to comply with real situation and actual demand of the government; and highly effective utilization of human resources greatly enhances success of a program.

## B. Recommendations

95. **Program-specific Recommendations:** To ensure continued success and sustainability of the program, ultimately benefiting stakeholders across the rice value chain, the following recommendations are proposed.

- (1) **Operation and maintenance budget.** MOWRAM, with the annual operation and maintenance budget, and FWUCs, through the collection of irrigation fees and support from subnational authorities, should continue to maintain and upgrade the irrigation schemes; MAFF should continue the semiautonomous business model for the seed centers and operate, maintain, and expand the quality seed sale business utilizing the seed sale proceeds; ACs should continue operation and maintenance of the storage houses; and MAFF should continue to operate, maintain, and expand the FSMIS database to disseminate CAEA and TIPs data to stakeholders across the nation.
- (2) **Promotion of technological adoption.** Continue strengthening community groups such as ACs and FWUCs and promote the adoption of improved technologies to optimize productivity in the rice value chain.
- (3) **Engagement of ACs.** MAFF and PDAFFs should continue collaboration with the ACs and rice seed growers to supply high-quality seeds, ensuring reliable seed management practices and availability, and establishing them as commercial entities.

96. **General Recommendations** are as follows:

- (1) Pursue the closest possible dialogue with government in developing both country sector assistance programs and the content of individual project designs to ensure the highest level of government ownership of investments from the outset.
- (2) To the extent possible, maintain continuity in the project administration of both ADB and the executing agency throughout the implementation period.
- (3) Provide access to affordable loans and capitalization to private partners in adopting state-of-the-art post-harvest technologies to improve storage efficiency, ensuring sustainability in the rice value chain and ultimately contributing to the growth of the rice industry. Improve post-harvest facilities at ACs to address limited capacity and storage challenges, ensuring better post-harvest practices.
- (4) Invest in local climate-resilient rice varieties to adapt to changing climate conditions and ensure sustainable rice production. Make rice seeds of local climate-adapted varieties more accessible, fostering widespread adoption and improving crop yield and quality.
- (5) Incorporate agroindustry processing technology into agricultural engineering curricula in universities to supply local expertise on processing technologies.

- (6) Scale up WICI scheme coverage to other crops and other geographic areas to mitigate risks associated with unpredictable weather patterns, providing financial protection to farmers for better planning on utilization of available resources.
- (7) Mainstreaming the food security concept and climate risk instruments in policy, planning, and implementation at the national and provincial levels is important in the face of growing global climate change, as the smallholders and vulnerable households are expected to become more exposed to shocks and stresses, leading to depletion of their productive assets, increased indebtedness, and reduced investment in health, education, and technology.
- (8) The potential assessment of carbon credit projects in rice cultivation conducted in the program target areas shows opportunities to integrate such projects with future value chain sector projects for reaping rich dividends for the farmers and achieving resource-efficient agribusiness value chains.
- (9) The midterm assessment conducted by the program through deploying artificial intelligence and machine learning-enabled platforms shows potential opportunities to deploy such platforms during normal periods or times of severe restriction (e.g., the COVID-19 pandemic) for the conduct of impact assessment.
- (10) The success of the program is both an acknowledgement of its relevance and of the benefits it has provided to those who participated. There is a need to expand the program benefits by replicating these successful operations, thereby enhancing the resilience of natural resources to climate change, improving national food security, and increasing agricultural commodity exports. The government and ADB/GAFSP should replicate such a well-performing program nationwide.

97. **Gender equality.** The program has adopted comprehensive interventions underpinning increased female participation in all program activities. It is critical to share information on the direct and indirect benefits of the program with women before the start of implementation and subsequent sharing of the results to influence women's participation in the program. It is recommended that good lessons and targeted interventions addressing barriers to women's access to male-dominated occupations be promoted and expanded.

98. **Covenants.** The loan and grant covenants of the program should be maintained in future related operations.

99. **Further action or follow-up.** The collection of seed sale proceeds for the remaining 20% of the 1,800 tons of seed sale (para. 33 (3)) is scheduled to be completed by the first quarter of 2025. Follow-up action is needed to ensure the seed sale proceeds are collected and transferred to the escrow account and used for the intended purposes.

100. **Timing of the project performance evaluation report.** Program implementation was completed in 2024. Thus, it is recommended that the project performance evaluation be scheduled in late 2025 to determine if the program continues to meet its objective.

**Appendix 1 - Summary of Compliance with Policy Actions  
(Completed by August 2022)**

<b>Policy initiative/ objective</b>	<b>Policy Actions for the Release of the First Tranche</b>	<b>Policy Actions for the Release of the Second Tranche</b>	<b>Policy Documents and Status</b>	<b>Accomplishments</b>
<b>Output: 1. Conducive Legal and Regulatory Environment Established to Facilitate Rice Commercialization</b>				
<b>1.1. Promote Local Seed Production and Distribution</b>				
1.1.1. Develop Rice Seed Sector	MAFF shall have drafted the Cambodian Seed Policy.	MAFF shall have issued the Cambodian Seed Policy.	Fully Complied <b>(Copy of the issued Seed Policy for Cambodia)</b>	The Seed Policy for Cambodia was approved by the Minister of MAFF and issued on 30 December 2016. MAFF published the document and carried out dissemination of the Seed Policy among the stakeholders.
1.1.2. Implement the Law on Seed Management and Plant Breeders' Rights (2008)	(a) MAFF shall have drafted the National Seed Standards.	(a) MAFF shall have issued the National Seed Standards.	Fully Complied <b>(Copy of the issued National Seed Standards)</b>	The National Seed Standards was approved by the Director General, GDA of MAFF and issued on 10 July 2017. MAFF carried out dissemination of the National Seed Standards among relevant stakeholders.
	(b) MAFF shall have drafted the Prakas on Procedures for Providing Seed Quality Certification.	(b) MAFF shall have issued the Prakas on Procedures for Providing Seed Quality Certification.	Fully Complied <b>(Copy of the issued Prakas on Procedures for Providing Seed Quality Certification)</b>	The Prakas on Procedures for Providing Seed Quality Certification was issued by the Minister of MAFF on 6 July 2017. MAFF carried out dissemination of the Prakas on Procedures for Providing Seed Quality Certification among relevant stakeholders.

Policy initiative/ objective	Policy Actions for the Release of the First Tranche	Policy Actions for the Release of the Second Tranche	Policy Documents and Status	Accomplishments
	(c) MAFF shall have drafted the General Introduction to the Examination of Distinctiveness, Uniformity and Stability of New Varieties of Plants.	(c) MAFF shall have issued the General Introduction to the Examination of DUS of New Varieties of Plants.	Fully Complied  <b>(Copy of the issued General Introduction to the Examination of DUS of New Varieties of Plants)</b>	The General Introduction to the Examination of DUS of New Varieties of Plants was approved by the Director General, GDA of MAFF and issued on 10 July 2017. GDA/MAFF carried out dissemination of the General Introduction to the Examination of DUS of New Varieties of Plants among relevant stakeholders.
	(d) MAFF shall have drafted the Guidelines for the Conduct of Tests for Distinctiveness, Uniformity and Stability of Rice.	(d) MAFF shall have issued the Guidelines for the Conduct of Tests for DUS of Rice.	Fully Complied  <b>(Copy of the issued Guidelines for the Conduct of Tests for DUS of Rice)</b>	The Guidelines for the Conduct of Tests for DUS of Rice was approved by the Director General, GDA of MAFF and issued on 10 July 2017. GDA/MAFF carried out dissemination of the Guidelines for the Conduct of Tests for DUS of Rice among relevant stakeholders.
<b>1.2. Strengthen Agricultural Land Management</b>				
1.2.1. Strengthen the Legal Framework for Agricultural Land Management.	(a) The Borrower shall have issued the National Policy on Spatial Planning.  (b) The Council for Land Policy shall have drafted the Land Policy “White Paper”, including a chapter on Land and Gender Policy.	(a) The Borrower shall have issued the Land Policy “White Paper”, including a chapter on Land and Gender Policy.	Fully Complied  <b>(Copies of the issued National Policy on Spatial Planning and Land Policy White Paper)</b>	The National Policy on Spatial Planning was adopted by the CoM on 8 April 2011.  The Land Policy White Paper was approved and issued on 28 August 2015 by the MLMUPC. The preface note of the White Paper was issued by the Prime Minister. MLMUPC carried out dissemination of the Land Policy “White Paper” among relevant

Policy initiative/ objective	Policy Actions for the Release of the First Tranche	Policy Actions for the Release of the Second Tranche	Policy Documents and Status	Accomplishments
				stakeholders. In addition to consultations with relevant ministries and stakeholders over 3 years, economic analysis of household data was undertaken by the Supreme National Economic Council to show that poverty risk is reduced by secure land tenure rights of households.
		(b) MAFF shall have drafted the Law on Management and Use of Agricultural Land, focusing inter alia, on (i) women's access to information on land administration, management and distribution; (ii) women's equal participation and representation in all commissions and committees; and (iii) equal benefits for women in land related initiatives.	Fully Complied <b>(Copy of the draft Agricultural Land Law)</b>	MAFF preferred and used the term "Agricultural Land Law" in place of "Law on Management and Use of Agricultural Land".  MAFF prepared the draft Agricultural Land Law incorporating gender aspects specifically containing (i) -(iii) by November 2017. The draft Law was in compliance with other land regulations and gender development in Cambodia.
1.2.2. Promote Sustainable Land Management.		MAFF shall have prepared and the Borrower shall have adopted the national action program to combat land degradation in Cambodia.	Fully Complied <b>(Copy of the national action program to combat land degradation in Cambodia)</b>	MAFF prepared and submitted the draft national action program to combat land degradation in Cambodia to the CoM. The CoM adopted it, and the Prime Minister approved it for nationwide implementation on 2 April 2018.

Policy initiative/ objective	Policy Actions for the Release of the First Tranche	Policy Actions for the Release of the Second Tranche	Policy Documents and Status	Accomplishments
1.2.3. Develop Land-use Zoning		MAFF shall have issued guidelines for establishing agricultural land-use zones, incorporating measures and targets for involving women in planning and decision making.	Fully Complied  <b>(Copy of the issued guideline for establishing agricultural land-use zones)</b>	The guidelines for establishing agricultural land-use zones, incorporating measures and targets for involving women in planning and decision making was approved by the Director General, GDA of MAFF and issued on 22 February 2019.
<b>1.3. Strengthen Farmers' Organizations and Promote Contract Farming</b>				
1.3.1. Regulate Farmers' Organizations	MAFF shall have drafted the Law on Agricultural Cooperatives.	MAFF shall have submitted the draft Law on Agricultural Cooperatives to the National Assembly.	Fully Complied  <b>(Copy of the Law on Agricultural Cooperatives)</b>	<p>The Law on Agricultural Cooperatives was adopted and passed by the National Assembly on 9 May 2013 and by the Senate on 22 May 2013. It was approved and signed in to Law by His Majesty, the King of Cambodia on 6 June 2013. Subsequently, a sub-decree to establish a dedicated department, Department of Agricultural Cooperative Promotion, to establish, strengthen and promote agricultural cooperatives was issued on 12 May 2014.</p> <p>MAFF published the document and actively promoting agricultural cooperatives through the Department of Agricultural Cooperative Promotion.</p>

Policy initiative/ objective	Policy Actions for the Release of the First Tranche	Policy Actions for the Release of the Second Tranche	Policy Documents and Status	Accomplishments
1.3.2. Promote Contract Farming in Rice Production	The Borrower shall have issued the Sub-decree on Contract Farming.		Fully Complied <b>(Copy of the issued Sub-decree on Contract Farming)</b>	The Government issued the Sub-decree on Contract Farming on 24 February 2011.
<b>1.4. Facilitate Domestic Trading and Export of Milled Rice</b>				
1.4.1. Establish Standard Specifications for Cambodian Milled Rice	MIME shall have issued the Cambodian standards on milled rice.	MIME <sup>1</sup> shall have issued the standards for various varieties <sup>2</sup> of Cambodian milled rice.	Fully Complied <b>(Copies of the issued Prakas and Standards for Cambodian milled rice varieties of Phka Rumduol Rice and Phka Chan Sen Sar Rice)</b>	The Prakas on the Establishment of 2 Cambodian Standards, Standard for Phka Rumduol Rice and Standard for Phka Chan Sen Sar Rice was issued by the Senior Minister, Minister of MIH on 19 August 2016. MIH through the Institute of Standards of Cambodia (ISC) carried out dissemination of the Cambodian Standard for Phka Rumduol Rice and Cambodian Standard for Phka Chan Sen Sar Rice among relevant stakeholders.
1.4.2. Establish Phytosanitary Regulations	MAFF shall have drafted the Law on Plant Protection and Phyto-sanitary Measures.	MAFF shall have submitted the draft Law on Plant Protection and	Fully Complied <b>(Copy of the Law on Plant)</b>	MAFF preferred and used the term “Law on Plant Protection and Quarantine” in place of “Law on

<sup>1</sup> Ministry of Industry Mines and Energy (MIME) was included in the original policy matrix. In 2013 MIME was split into two ministries: (i) Ministry of Industry and Handicraft (MIH); and (ii) Ministry of Mines and Energy. Approval Authority is National Standards Council (NSC) chaired by the Minister of Industry and Handicraft, with representatives from relevant technical line ministries including the Ministry of Agriculture, Forestry and Fisheries; the Ministry of Health; and the Ministry of Commerce. Overall, the NSC is the national secretariat, which oversees, regulates, verifies, and adopts or certifies standards proposed by each technical ministry.

<sup>2</sup> During ADB's Loans and Grants Inception Mission (09-13 February 2015), both the Government and ADB agreed to modify the condition to be realistic and focus on issuing standards for two varieties of Cambodian milled rice, Phka Rumduol and Phka Chan Sen Sar, instead of focusing on “standards for various varieties of Cambodian milled rice”. This is reflected in para 13 of the Inception Mission's Memorandum of Understanding (MoU).

Policy initiative/ objective	Policy Actions for the Release of the First Tranche	Policy Actions for the Release of the Second Tranche	Policy Documents and Status	Accomplishments
		Phytosanitary Measures to the National Assembly.	<b>Protection and Quarantine)</b>	Plant Protection and Phytosanitary Measures".  MAFF prepared and submitted the draft Law on Plant Protection and Quarantine to CoM. The draft law was adopted by CoM through its plenary session on 4 February 2022. On the same day, the government submitted the draft law to the National Assembly for review and adoption. The draft law was passed by the National Assembly and by the Senate, and approved and signed into law by His Majesty, the King of Cambodia on 3 May 2022.
1.4.3. Regulate Distribution and Use of Pesticides and Fertilizers	The Borrower shall have issued the Law on the Management of Pesticides and Fertilizers.		Fully Complied <b>(Copy of the Law on the Management of Pesticides and Fertilizers)</b>	The draft Law on the Management of Pesticides and Fertilizers was prepared by MAFF, passed by the National Assembly and by the Senate, and approved and signed into law by His Majesty, the King of Cambodia on 14 January 2012. MAFF carried out dissemination of the Law among the stakeholders.

ADB = Asian Development Bank, CoM = Council of Ministers, DUS = Distinctiveness, Uniformity and Stability, GDA = General Directorate of Agriculture, ISC = Institute of Standards of Cambodia, MAFF = Ministry of Agriculture Forestry and Fisheries, MEF = Ministry of Economy and Finance, MIH = Ministry of Industry and Handicraft, MIME = Ministry of Industry Mines and Energy, MLMUPC = Ministry of Land Management, Urban Planning and Construction.

**Appendix 2 - Design and Monitoring Framework including GASFP Results Framework & SCF Results Framework**

Indicator	Source of Data	Target	Achievement	% Achievement	Remarks
<b>I. DESIGN AND MONITORING FRAMEWORK (DMF)</b>					
<b>A. IMPACT INDICATORS</b>					
a. Average farming household incomes increased from \$400 in 2010 to \$700 by 2020	Cambodia Socio-economic Survey (CSES 2013) report (Average agriculture HH income)	2020 = \$700 (75% increase over 2010 baseline)	2019/20 = \$792 (98% increase over 2010 baseline)  2023 = \$773 (93% increase over 2010 baseline)	<b>113%</b>  <b>110%</b>	Achieved.  Cambodia Socio-economic Survey (CSES 2019/20) report (Average agriculture HH income).  Endline Survey in 2024.
b. Revenue of rice exporters increased from \$100 million in 2012 to \$600 million in 2020	Ministry of Commerce Annual Report (AR) 2012	2020 = \$600 million (600% increase over 2012 baseline)	2020, MAFF = \$1.26 billion (\$538.80 million from milled rice and \$723.48 million from paddy)  (1260% increase over 2012 baseline)  2023, Endline Survey = \$1.786 billion (\$466 million from milled rice and \$1.32 billion from paddy)  (1786% increase over 2012 baseline)	<b>210%</b>  <b>297%</b>	Achieved.  MAFF Report (Press Conference by MAFF Minister, News article from Phnom Penh Post, dated 4 January 2021).  Endline Survey in 2024 (Phnom Penh Post, <a href="#">FAOHome</a> ).
c. Net profit of rice exporters increased from \$30 million in 2012 to \$180 million by 2020	BL - Key Informant Interviews (KIIs) with rice millers and rice	2020 = \$180 million	2023, Endline Survey = \$180.55 million	<b>100%</b>	Achieved.  Endline survey in 2024.
d. Average rice yields increased to more than 3.50 t/ha by 2025	MAFF 2026 Annual Report.	>3.50 t/ha	6.54 t/ha	<b>187%</b>	Achieved.  Endline survey in 2024.

Indicator	Source of Data	Target	Achievement	% Achievement	Remarks
<b>B. OUTCOME INDICATORS</b>					
a. Paddy production increased from 8.0 million tons in 2012 to 9.5 million tons by 2018	MAFF Annual Report 2013	2018 = 9.5 million tons (19% increase over the baseline)	2020 = 10.93 million tons (37% increase over the baseline)  2023 = 12.6 million tons (57% increase over the baseline)	<b>115%</b>  <b>133%</b>	Achieved.  MAFF Annual Report 2020.  Endline survey in 2024 ( <a href="#">Phnom Penh Post</a> , <a href="#">FAOHome</a> ).
b. Milled rice exports increased from 200,000 tons in 2011 to 0.7 million tons in 2023	MAFF - Annual Report 2013 (with 2012 data)	2023 = 0.7 million tons (350% increase over the baseline)	2020 = 690,829 tons (345% increase over the baseline)  In 2020, Cambodia also exported 2.89 million tons of paddy, which is equivalent to 1.85 million tons of milled rice.  2023 = 656,323 tons (328% increase over the baseline)  In 2023, Cambodia also exported 4 million tons of paddy, which is equivalent to 2.56 million tons of milled rice.	<b>363%</b>  ( <b>99%</b> if only milled rice)	Achieved.  MAFF Annual Report 2023          Endline survey in 2024 ( <a href="#">FAOHome</a> , <a href="#">Kiripost</a> ).
c. Guidelines for establishing agricultural land use zones completed by 2020	Government project completion report	By 2020 guidelines for establishing agricultural land use zones is completed	Guidelines for establishing agricultural land use zones completed on 22 February 2019	<b>100%</b>	Achieved.  Approved policy-based loan completion report, 2022.

Indicator	Source of Data	Target	Achievement	% Achievement	Remarks
d. Commune land-use plan incorporating agro-ecosystems analysis developed for all target communes by 2022		By 2022 Commune land-use plan incorporating agro-ecosystems analysis is developed	Commune land-use plan incorporating agro-ecosystems analysis is developed for all 90 target communes.	<b>100%</b>	Achieved.  Quarterly Progress Reports and approved CLUP for all 90 target communes.
<b>C. OUTPUT INDICATORS</b>					
<b>Output 1: A Conducive Legal and Regulatory Environment Established to Facilitate Climate Resilient Rice Commercialization</b>					
By 2021, (1a) Policy and regulatory framework for local seed production are in place.	Tranche Compliance Reports prepared by the EA	5 policies and regulations relating to seed	First Tranche and Second Tranche conditions were complied with. First tranche was released on 19 December 2013 and second tranche was released on 26 August 2022. The policy-based loan (L-3006) was closed on 31 August 2022.	<b>100%</b>	Achieved.  Approved policy-based loan completion report, 2022.
(1b) Guidelines for establishing agricultural land use zones are completed	Tranche Compliance Reports prepared by the EA	1 policy relating to guidelines for establishing agricultural land use zones	First Tranche and Second Tranche conditions were complied with. First tranche was released on 19 December 2013 and second tranche was released on 26 August 2022. The policy-based loan (L-3006) was closed on 31 August 2022.	<b>100%</b>	Achieved.  Approved policy-based loan completion report, 2022.
(1c) Legislation on sustainable management and use of agricultural land are operational	Tranche Compliance Reports prepared by the EA	4 policies and legislations relating to agricultural land management	First Tranche and Second Tranche conditions were complied with. First	<b>100%</b>	Achieved.

Indicator	Source of Data	Target	Achievement	% Achievement	Remarks
			tranche was released on 19 December 2013 and second tranche was released on 26 August 2022. The policy-based loan (L-3006) was closed on 31 August 2022.		Approved policy-based loan completion report, 2022.
(1d) Regulatory systems for farmer's organizations and contract farming are functional	Tranche Compliance Reports prepared by the EA	2 policies and regulations relating to farmers organization	First Tranche and Second Tranche conditions were complied with. First tranche was released on 19 December 2013 and second tranche was released on 26 August 2022. The policy-based loan (L-3006) was closed on 31 August 2022.	<b>100%</b>	Achieved.  Approved policy-based loan completion report, 2022.
(1e) Milled rice standards and trade facilitation measures in place	Tranche Compliance Reports prepared by the EA	4 policies and regulations relating to milled rice standards and trade facilitation	First Tranche and Second Tranche conditions were complied with. First tranche was released on 19 December 2013 and second tranche was released on 26 August 2022. The policy-based loan (L-3006) was closed on 31 August 2022.	<b>100%</b>	Achieved.  Approved policy-based loan completion report, 2022.

Indicator	Source of Data	Target	Achievement	% Achievement	Remarks
<b>Output 2: Agricultural Land-use Zoning Improved</b>					
2a. 90 rice growing communes in target provinces complete CAEAs and incorporate into CLUPs by 2021					
1. 90 rice growing communes in target provinces complete CAEAs	NIO/MAFF	90 communes	90	<b>100%</b>	Achieved.  Completed in all respect. CAEA data entry into FSMIS database was completed.
2. CAEA Incorporated into CLUPs	NIO/MLMUPC	90 communes	Chapter 1: 90 communes completed  Chapter 2: 90 communes completed  Chapter 3: 90 communes completed/integrated	<b>100%</b>  <b>100%</b>  <b>100%</b> (integrated)	Achieved.  There are 3 chapters, and the integration occurs after Chapter 3. All 90 CLUPs and Hotspot Maps in Prey Veng, Kampong Thom and Battambang have been adopted.
2b. 90 groups of farmers consulted (with at least 40% female representation) during the preparation of CLUPs by 2021	NIO/MLMUPC & NIO/MAFF	90 groups and 40% female	90 groups consulted with at least 56% female representation  11,314 (F = 6,336, 56% female)	<b>100%</b>	Achieved.  The combined (CAEA+CLUPs) farmers participation achieved was 24,768 (F = 11,592, 47% Female).  MLMUPC (CLUPs) - 11,314 (F = 6,336, 56%); and MAFF (CAEA) - 13,454 (F = 5,256, 39%).
<b>Output 3: Climate Resilient Rice Value Chain Infrastructure Developed</b>					
3ai. 18,586 hectares (ha) of command area served by climate-	NIO/MOWRAM	18,586 ha	18,586	<b>100%</b>	Achieved.

Indicator	Source of Data	Target	Achievement	% Achievement	Remarks
resilient rehabilitated irrigation structures by 2021					9 sub-projects were fully rehabilitated.
3a.ii. 40% unskilled laborers employed in the rehabilitation are women	NIO/MOWRAM & PMO	40% women	40.4% women  (3,259 females among 8,057 total unskilled laborers)	<b>100%</b>	Achieved.  Irrigation Scheme = 8,057 (F = 3,259, 40.4%).  In addition, PDS facilities = 854 (F = 361, 42%), SPS facilities = 563 (F = 181, 32%), AC Storage & FWUC building by MEF= 126 (F=83, 66%), and Seed storage warehouse by MAFF = 177 (F = 105, 59%).  Total 3,989 (41%) females among 9,777 total unskilled laborers employed in the rehabilitation.
3a.iii. 50% of construction subcommittee members are women	PIOs	50% women	55% women  (113 females among 204 total members)	<b>110%</b>	Achieved.
3a.iv. One (1) FWUC established in each irrigation scheme, with women occupying 30% of the management positions					
1. Total number of irrigation schemes	NIO/MOWRAM	9	9	<b>100%</b>	Achieved.  Rehabilitation of 9 subprojects completed 100% in all respects.
2. Number of FWUCs established	PIOs	9	9	<b>100%</b>	Achieved.

Indicator	Source of Data	Target	Achievement	% Achievement	Remarks
					Based on the Statute of FWUC establishment only 1 FWUC per scheme is established. So, 9 FWUCs for 9 schemes were established.
3. Women occupying 30% of the management positions in FWUCs	PIOs	30% women	48% women (106 females among 223 total members)	<b>160%</b>	Achieved. - FWUC Committee= 223 (F= 106, 48%)  -FWUC Advisory Committee = 84 (F= 45, 54%)  The total Members of FWUC Committee + Advisory Committee= 307 (F= 151, 49%)
3b. Two seed drying and storage facilities constructed by 2021 with a combined storage capacity of 6,400 tons (30% unskilled laborers and 50% administrative staff are women)	NIO/MAFF				Achieved.  Construction of 2 SPS facilities at Battambang and Prey Veng were completed (100%) and made operational. The two SPS facilities were able to process at least 1,200 tons rice seed per season and store 6,400 tons rice seed.
1. 2 seed drying and storage facilities constructed		2	2	<b>100%</b>	
2. Total storage capacity (6,400 tons)		6,400 tons	6,400	<b>100%</b>	
3. 30% unskilled laborers are women		30% women	44%	<b>147%</b>	
4. 50% administrative staff are women		50% women	57%	<b>114%</b>	Unskilled labor during operation phase total = 61 (F = 27, 44%) Admin staff during operation phase total = 23 (F = 13, 57%).

Indicator	Source of Data	Target	Achievement	% Achievement	Remarks
3c. Capacity for drying paddy in target provinces extended by 2,000 tons per day and capacity for paddy storage in target provinces extended by 40,000 tons by 2021	PMO				Achieved.
1. Capacity for drying paddy in target provinces extended by 2,000 tons per day by 2021		2,000 tons/day	2,780 tons/day	<b>139%</b>	Construction of 5 PDS facilities at Lim Heng Leap Rice Mill, 1688 Rice Mill, Chhun Thom Rice Mill, Phou Poy Rice Mill and City Rice Mill were completed (100%) and made operational.  Unskilled labor during operation phase total = 1,110 (F = 365, 33%)  Admin staff during operation phase total = 144 (F = 75, 52%).
2. Capacity for paddy storage in target provinces extended by 40,000 tons by 2021		40,000 tons	62,850 tons	<b>157%</b>	
3d. Six rice seed DSF (including storage warehouses and drying yards) constructed (2021 baseline: 0) by 2023	NIO/MAFF & PMO	6	11	<b>183%</b>	Achieved. (AF activity)  Constructed 11 paddy/rice seed storage houses and drying floors for 11 ACs (2 in Prey Veng; 4 in Battambang; and 5 in Kampong Thom).  NIO/MAFF constructed 6 paddy/rice seed storage houses and drying floors for 6 ACs using AF budget and PMO constructed 5 paddy/rice seed storage houses and drying floors for 5 ACs using budget savings under original project.
3e. 500 days of training to raise agricultural productivity provided to 22,000 farmers and community	PIOs, NIO/MAFF & PMO				

Indicator	Source of Data	Target	Achievement	% Achievement	Remarks
members (at least 50% of participants are women) (2021 baseline: 0) by 2023					
1. 500 days of training to raise agricultural productivity		500	1,522	<b>304%</b>	Achieved. (AF activity)  (Note: As indicated under indicator no. 2 of GAFSP M&E below, the project provided a total of 13,992 days of training to raise agricultural productivity (12,470 days under original project and 1,522 days under the AF project) for extension agents, agro-dealers, farmers, and community members. A grand total of 373,176 participants, including 193,412 (52%) females, received the training.
2. training to raise agricultural productivity provided to 22,000 farmers and community members (at least 50% of participants are women)		22,000  50% women	72,160  54% women (38,692 women out of 72,160 farmers)	<b>328%</b>  <b>107%</b>	Achieved. (AF activity)  PIOs capacity building activities under topics land leveling, soil nutrients management, sustainable rice production, certified seed production, post-harvest technology, etc. + MAFF NIO + PMO.  (Note: As indicated above, the project provided 13,992 days of training to raise agricultural productivity (12,470 days under original project and 1,522 days under the AF project) and

Indicator	Source of Data	Target	Achievement	% Achievement	Remarks
					<i>covered 352,120 farmers and community members, including 188,164 (53%) females (Original project =279,960 farmers including 149,472 females and AF project = 72,160 farmers including 38,692 females).</i>
<b>Output 4: Rice Value Chain Support Services to Improve Quality of Cambodian Rice Enhanced</b>					
4a. 2,400 tons of fragrant rice seed produced per annum in target provinces by 2021	NIO/MAFF	2,400 tons per annum	2,493 tons per annum	<b>104%</b>	Achieved.  The grand total of fragrant certified and registered seed production was 9,971.63 tons (9,740.98 tons certified seeds and 230.65 tons registered seeds) with an annual average production of 2,493 tons.
4b. 70% of farmers (disaggregated by sex) in target provinces using commercial seed every 2 years by 2021 (2012 baseline: 10%)	NIO/MAFF based on Household Survey	70% of farmers	71.3% farmers (27.2% FHH)	<b>101%</b>	Achieved.  Endline Survey in 2024 found 71.3% of farmers including 27.2% female farmers in target provinces using certified rice seed every 2 years. The survey found a total of 84.3% of farmers adopted certified seeds.
4c. 30% of farmers (disaggregated by sex) have leveled their paddy fields by 2021 (2012 baseline: 5%)	PIOs	30% of farmers	63.9% of farmers (65.6% of female farmers)	<b>213%</b>	Achieved.  Endline Survey in 2024 found that 63.9% of farmers adopted land levelling

Indicator	Source of Data	Target	Achievement	% Achievement	Remarks
					<p>(65.6% of Female Farmers).</p> <p>Through direct intervention, the project covered 304,861 farmers, including 154,819 (51%) females (Original project =270,813 farmers including 137,738 females and AF project = 34,048 farmers including 17,081 females) under the land levelling activities.</p> <p>Farmers who adopted land levelling in the Rice SDP target area =304,861/665,520 = 45.8%.</p> <p><i>Thus, achievement through direct coverage was 153% (45.8%/30%).</i></p>
4d. 50% of farmers in target provinces (disaggregated by sex) obtain technical advice through trained input suppliers by 2021 (2012 baseline: 10%)	NIO/MAFF based on Household Survey	50% of farmers	65% (28% FHH)	<b>130%</b>	<p>Achieved.</p> <p>Endline Survey in 2024.</p> <p>Crop Survey in 2021 by MAFF.</p> <p>A total of 2,267 agricultural input suppliers, including 738 (33%) females from target areas received training from the program.</p>
4e. 10 rice millers in target provinces use independent financial	NIO/MAFF	10	10	<b>100%</b>	Achieved.

Indicator	Source of Data	Target	Achievement	% Achievement	Remarks
management advisory services by 2021 (2012 baseline: 0)					<p>10 rice millers in target provinces have started to use independent financial management advisory services.</p> <p>A Rice Millers Capacity Development (RMCD) Service Provider was engaged in developing technical and financial capacities of rice millers. 34 rice millers (F=3, 9%) from target provinces received capacity building training.</p> <p>10 local firms were selected and trained for providing advisory services to rice millers.</p>
4f. At least 1,800 tons of quality rice seeds produced and made accessible to farmers (2021 baseline: 0) by 2023	NIO/MAFF	1,800 tons	1,800 tons	<b>100%</b>	<p>Achieved. <i>(AF activity)</i></p> <p>MAFF-NIO signed LOAs with 4 agriculture stations and 15ACs and produced 1,800 tons of certified rice seed under the Additional Financing (AF) budget. The seeds produced were sold to 23,545 target farmers.</p>
4g. 19 agricultural cooperatives equipped with better pre- and postharvest technologies (2021 baseline: 0 agricultural cooperatives equipped) by 2023	MAFF NIO	19 ACs	19 ACs	<b>100%</b>	<p>Achieved. <i>(AF activity)</i></p> <p>19 rice seeders were procured and distributed to 19 ACs and training on their use was provided. The ACs participated in pre- and post-harvest capacity building activities.</p>

Indicator	Source of Data	Target	Achievement	% Achievement	Remarks
4h. Market facilitation activities conducted for 35 agricultural cooperatives (2021 baseline: 0 market facilitation activities conducted) by 2023	PIOs	35 ACs	144 ACs	411%	<p>Achieved. (AF activity)</p> <p>49 market facilitation activities conducted for 144 ACs (57 ACs in Prey Veng, 45 ACs in Kampong Thom, and 42 ACs in Battambang) under the AF project. A total of 3,584 participants, including 1,665 (46%) females participated in the facilitation activities.</p> <p>Note: Under the original project, 37 market facilitation activities conducted for 97 ACs (41 ACs in Prey Veng, 34 ACs in Kampong Thom, and 22 ACs in Battambang). A total of 1,422 participants, including 367 (26%) females participated in the facilitation activities.</p> <p>Thus, a total of 86 market facilitation activities conducted for 144 ACs with the participation of 5,006 participants, including 2,032 (41%) females.</p>
<b>Output 5: Weather Indexed Crop Insurance (WICI) Piloted</b>					
5a & 5c. 120,000 ha of rice producing areas covered by WICI by 2023 (at least 50% of the policy holders are women) (2012 baseline: 0) (2021 baseline: 0 ha covered by WICI)					

Indicator	Source of Data	Target	Achievement	% Achievement	Remarks
1. 120,000 ha of rice producing areas covered by WICI by 2023 (2012 baseline: 0)	PMO	120,000 ha.	160,376 ha	134%	<p>Achieved.</p> <p>Feasibility Study, Detailed Design (DD), and pilot testing from 2021 to 2024 completed. Normally the sale of WICI Policy to farmers is conducted between 1 April to 30 June every year and the insurance coverage is up to 31 October.</p> <p>WICI scheme awareness raising activities were conducted by the PMO from 2021 to 2024 covering a total of 1,403 participants including 485 (35%) females from regulator office, insurance companies, meteorological and weather data agencies, agriculture research institutes, MFIs, agriculture input suppliers, provincial officials and others.</p> <p>Farmers' awareness raising activities were conducted by the PMO, PIOs, FORTE and WICI team from 2021 to 2024 covering a total of 112,827 farmers (female = 60,226 - 53%).</p> <p>A total of 160,376 hectares have been covered under</p>

Indicator	Source of Data	Target	Achievement	% Achievement	Remarks
					WICI scheme (2021= 887ha; 2022= 2,424 ha; 2023= 80,962 ha; and 2024= 76,103 ha).
<i>2. at least 50% of the policy holders are women (2012 baseline: 0)</i>	PMO	50% women	53% (133,198 Farmer households, F = 71,156)	<b>106%</b>	Achieved.  2021= 675/336F; 2022= 1,620/797F; 2023= 54,800/28,336F; and 2024= 76,103/41,687F
5b. 15 Agricultural Cooperatives (ACs), 2 Insurance Companies, 1 Local Financial Institution, and 1 Local Agribusiness Entity participating in the pilot tests in three provinces by 2023 (2012 baseline: 0)					
<i>1. 15 ACs participating in the pilot tests in three provinces by 2023 (2012 baseline: 0)</i>	PMO	15	22  (22 Agriculture Cooperatives)	<b>147%</b>	Achieved.
<i>2. 2 Insurance Companies and 1 Local Financial Institution participating in the pilot tests in three provinces by 2023 (2012 baseline: 0)</i>	PMO	3	6	<b>200%</b>	Achieved.  Insurance Company: FORTE Insurance (Cambodia) Plc. and Ly Hour Insurance Plc.  Local Financial Institution: AMK Microfinance Institution, LOLC Microfinance Institution, AMRET Microfinance Institution, and ACLEDA Bank Plc..
<i>3. 1 Local Agribusiness Entity participating in the pilot tests in three</i>	PMO	1	1	<b>100%</b>	Achieved.  Nelida Co Ltd.

Indicator	Source of Data	Target	Achievement	% Achievement	Remarks
<i>provinces by 2023 (2012 baseline: 0)</i>					
<b>Output 6: Efficient Program Management and Implementation</b>					
6a. Rice-SDP performance monitoring system disaggregated by sex, designed and operational within 6 months of effectiveness	PMO	Disaggregated by sex	Completed in February 2018 and databases were established in April 2018.	<b>100%</b>	Achieved.
6b. Baseline surveys completed within 12 months of loans and grants effectiveness and end-line impact evaluation undertaken 6 months before Rice-SDP completion date	PMO	Within 12 months	Baseline Survey completed and final report submitted by the firm in September 2018.  Endline Survey completed and final report submitted by the firm in September 2024.	<b>100%</b>	Achieved.  The Baseline Survey was conducted by the Firm in July and August 2018.  The Endline Survey was conducted by the Firm in February 2024 and the Final Report was submitted in September 2024.
6c. For PMO, NIOs, and PIOs, 30% of administrative and technical positions are filled by women by Q3 2013; progress of gender actions included as part of Rice-SDP progress reports					
<i>1. For PMO, NIOs and PIOs, 30% of administrative and technical positions are filled by women by Q3 2013</i>	PMO	30% women	22% women  (46 females among 212 total admin and technical staffs)	<b>73%</b>	Substantially Achieved.
<i>2. progress of gender actions included as part of Rice-SDP progress reports</i>	PMO	GAP included in Progress Reports	GAP included in the Quarterly Progress Reports	<b>100%</b>	Achieved.

Indicator	Source of Data	Target	Achievement	% Achievement	Remarks
<b>II. GAFSP- RESULTS FRAMEWORK</b>					
1. Six technical information procedures for lowland rice production upgraded by 2021	NIO/MAFF	6 procedures/ packages	8 procedures/ packages  (8 TIPs developed and printed out for dissemination.)	<b>100%</b>	Achieved.  The topics covered under TIPs (Technical Information Package) are Rice Production in wet season, Rice Production in early wet season, Rice Production in dry season, Rice Seed Production, Insect Pest and Diseases on Rice, Laser Land Levelling, Rice Post Harvest Technology, and Agro-ecosystem Analysis Manual.
2. 11,500 days of training to raise agricultural productivity provided to extension agents, agro-dealers, farmers, community members etc. (disaggregated by gender)	All NIO and PIOs	11,500 days	13,992 days	<b>122%</b>	Achieved.  193,412 females (52%) out of 373,176 participants participated in the capacity building activities of PMO, NIOs and PIOs. Legal Covenants target is 50% female, and the achievement is 52% (104% achievement).  The 13,992 days includes 1,152 days of training on (1) land levelling; (2) soil nutrient management; (3) sustainable rice production; and (4) Certified Paddy Production provided to extension agents, agro-dealers, farmers, community members, etc.

Indicator	Source of Data	Target	Achievement	% Achievement	Remarks
					provided under the AF project.
3. 30 subproject contracts providing extension services executed between Rice-SDP and participating provincial department of agriculture (PDAs) by 2021, covering an estimated 30,000 households	NIO/MAFF and PIOs	30 contracts and 30,000 household beneficiaries	108 contracts 235,399 household beneficiaries	Contract = <b>360%</b> Households = <b>785%</b>	Achieved.  PDAFFs extension training activities - 108 contracts. PIOs = 219,655 farm households and MAFF = 15,744 farm households.
4. An increment of 30,000 hectares of paddy land on which modern production technology has been adopted by 2021	NIOs of MAFF and MOWRAM and PIOs	30,000 ha	178,730 ha	<b>596%</b>	Achieved.  Under original project = 161,470 ha, and under the AF project = 17,260 ha.
5. An estimated 1,800 tons of quality rice seeds produced and sold to farmers/ACs at an affordable price	NIO/MAFF	1,800 tons	1,800 tons	<b>100%</b>	Achieved.  Same as ADB DMF.  MAFF-NIO signed LOAs with 4 agriculture stations and 15ACs and produced 1,800 tons of certified rice seed under the Additional Financing (AF) budget. The seeds produced were sold to 23,545 target farmers.
6. 19 agricultural cooperatives equipped with better pre- and postharvest technologies	MAFF NIO	19 ACs	19 ACs	<b>100%</b>	Achieved.  Same as ADB DMF.  19 rice seeders were procured and distributed to 19 ACs and training on their use was provided. The ACs participated in pre- and post-harvest capacity building activities.

Indicator	Source of Data	Target	Achievement	% Achievement	Remarks
7. At least 30,000 households will adopt water saving technology by land leveling promoted by Rice-SDP by 2021	PIOs	30,000 households	91,172 Households (F=13,465 female farmers - 15% female)	<b>304%</b>	Achieved.  Under original project = 82,495 households including 12,113 (15%) females, and under the AF project = 8,677 households including 1,352 (16%) females.  The project covered a total of 91,172 HHs (F = 13,465, 15%), which is 46.5% of the total HHs in Rice SDP coverage that is 196,082 HHs.
8. 90 communes will have completed commune land use plans (CLUPs) based on the ecosystem analyses performed in these communes by 2021	NIO/MLMUPC	90 communes	Chapter 1: 90 communes completed  Chapter 2: 90 communes completed  Chapter 3: 90 communes completed/integrated	<b>100%</b>  <b>100%</b>  <b>100%</b> (integrated)	Achieved.  Same as ADB-DMF  There are 3 chapters, and the integration occurs after Chapter 3. All 90 CLUPs and Hotspot Maps in Prey Veng, Kampong Thom and Battambang have been adopted.
9. Paddy area with improved/rehabilitated irrigation and drainage services will be 18,586 ha by 2021	NIO/MOWRAM	18,586 ha	18,586	<b>100%</b>	Achieved.  Same as ADB-DMF  9 sub-projects were fully rehabilitated.
10. Number of water users provided with improved /new/rehabilitated irrigation and drainage services	NIO/MOWRAM	50,000 water users	100,095 (F=51,053, 51%)	<b>200%</b>	Achieved.  Same as SCF Results Framework.

Indicator	Source of Data	Target	Achievement	% Achievement	Remarks
(disaggregated by gender) estimated to be 50,000 by 2021					
11. Number of operational FWUCs estimated to be 9 by 2021 within the subproject areas	PIOs	9	9	<b>100%</b>	Achieved.  Same as ADB-DMF  One FWUC per irrigation scheme established following the Sub-Decree on FWUC establishment.
12. 26,000 farming households become members of production association and water user community members (30% are women) by 2021	PIOs	26,000 households and 30% women	26,320 (F = 8,257, 31%)	<b>101%</b>  <b>105%</b> for women target	Achieved.  <i>FWUC Members Total = 17,870 households (Female HH = 3,181, 18%)</i>  <i>Agriculture Cooperative Members = 8,450 Households (Female HH = 5,076, 60%)</i>
13. Market facilitation activities are conducted for 35 agricultural cooperatives	PIOs	35 ACs	144 ACs	<b>411%</b>	Achieved.  Same as ADB-DMF  49 market facilitation activities conducted for 144 ACs (57 ACs in Prey Veng, 45 ACs in Kampong Thom, and 42 ACs in Battambang) under the AF project. A total of 3,584 participants, including 1,665 (46%) females participated in the facilitation activities.  Note: Under the original project, 37 market facilitation activities

Indicator	Source of Data	Target	Achievement	% Achievement	Remarks
					<p>conducted for 97 ACs (41 ACs in Prey Veng, 34 ACs in Kampong Thom, and 22 ACs in Battambang). A total of 1,422 participants, including 367 (26%) females participated in the facilitation activities.</p> <p>Thus, a total of 86 market facilitation activities conducted for 144 ACs with the participation of 5,006 participants, including 2,032 (41%) females.</p>
14. Volume of paddy under improved post-harvest management increased by 30,000 tons (in terms of storage capacity) by 2021	PMO	30,000 tons	62,850 tons	<b>210%</b>	<p>Achieved.</p> <p>Same as ADB-DMF but target was 40,000 tons. Construction of 5 PDS facilities at Lim Heng Leap Rice Mill, 1688 Rice Mill, Chhun Thom Rice Mill, Phou Poy Rice Mill and City Rice Mill were completed (100%) and made operational.</p> <p>Unskilled labor during operation phase total = 1,110 (F = 365, 33%)</p> <p>Admin staff during operation phase total = 144 (F = 75, 52%).</p>
15. Capacity for drying paddy in target provinces extended by 2,000 tons per day by 2021	PMO	2,000 tons	2,780 tons	<b>139%</b>	<p>Achieved.</p> <p>Same as ADB-DMF</p>

Indicator	Source of Data	Target	Achievement	% Achievement	Remarks
16. 6 public-private paddy and seed processing facilities (grading, drying and storage) installed by 2021	PMO and NIO/MAFF	6 public-private paddy and seed processing facilities	7	117%	Achieved.  Construction of 7 facilities, 2 seed processing and storage (SPS) facilities and 5 paddy drying and storage (PDS) facilities, are completed (100%) and made operational.
17. 50,000 client days of training on better post-harvest procedures provided (50% of participants being women)	NIO/MAFF and PIOs	50,000 (50% female)	Client Days = 592,395 (F=342,944- 58%)  Participants= 41,461 (F=23,966 - 58%)	Client days = 1,185%  Women participants = 116%	Achieved.  Under original project = 569,929 client days (F= 329,569, 58%) and under the AF project = 22,466 client days (F= 13,375, 60%).  Under original project = 29,124 participants (F= 16,762, 58%), and under the AF project = 12,337 participants (F= 7,204, 58%)
18. A weather-indexed crop insurance scheme introduced to improve weather-related risks by 2021 (co-financed by PPCR)	PMO	Introduction of weather-indexed crop insurance scheme	Introduced	100%	Achieved.  Feasibility Study, Detailed Design (DD), and pilot testing from 2021 to 2024 completed. Normally the sale of WICI Policy to farmers is conducted between 1 April to 30 June every year and the insurance coverage is up to 31 October.  Several capacity building and awareness generation

Indicator	Source of Data	Target	Achievement	% Achievement	Remarks
					<p>activities for Insurance Companies, MFIs, Government Officials, subnational/local Authorities, ACs, Farmers, etc. are conducted covering a total of 114,230 participants (female = 60,711 - 53%).</p> <p>The project printed 65,000 WICI booklets and distributed them to farmers through PIOs, MFIs and agricultural inputs merchants.</p>
19. 120,000 ha of rice producing areas covered by a WICI scheme directed towards vulnerable groups (co-financed by Pilot Program for Climate Resilience - PPCR)	PMO	120,000 ha.	160,376 ha	<b>134%</b>	<p>Achieved.</p> <p>Same as ADB-DMF</p> <p>A total of 160,376 hectares have been covered under WICI scheme (2021= 887ha; 2022= 2,424 ha; 2023= 80,962 ha; and 2024= 76,103 ha).</p>
20. 10 rice millers trained through advisory services by 2021	NIO/MAFF	10	10	<b>100%</b>	<p>Achieved.</p> <p>Same as ADB-DMF</p> <p>10 rice millers in target provinces have started to use independent financial management advisory services.</p> <p>A Rice Millers Capacity Development (RMCD) Service Provider was</p>

Indicator	Source of Data	Target	Achievement	% Achievement	Remarks
					<p>engaged in developing technical and financial capacities of rice millers. 34 rice millers (F=3, 9%) from target provinces received capacity building training.</p> <p>10 local firms were selected and trained for providing advisory services to rice millers.</p>
21. 80,000 FWUC members trained in group management and irrigation scheme operations and maintenance by 2021	NIO/MOWRAM and PIOs	80,000 FWUC members	84,659 (F - 44,321 - 52%)	<b>106%</b>	Achieved.
22. 100 staff of financial institutions in participating provinces receive training on the needs of farmers wishing to diversify their livelihood sources by 2021	NIO/MAFF	100 staff	124 (F=4, 3%)	<b>124%</b>	<p>Achieved.</p> <p>The RMCD service provider conducted capacity building of 124 staff of financial institutions.</p>
23. 1,000 farmers trained in requirements of financial institutions to assist in gaining access to credit by 2021 (with 30% women participants)	NIO/MAFF	1000 farmers (30% female)	1,249 (F = 566, 45%)	<p><b>125%</b></p> <p>Female achieved+ <b>151%</b></p>	<p>Achieved.</p> <p>The RMCD service provider and staff of financial institutions with MAFF/NIO conducted capacity building of 1,249 farmers.</p>
24. 10 rice millers in target provinces use independent financial management advisory services by 2021 (2012 baseline: 0)	NIO/MAFF	10	10	<b>100%</b>	<p>Achieved.</p> <p>Same as ADB-DMF</p> <p>10 rice millers in target provinces have started to use independent financial management advisory services.</p>

Indicator	Source of Data	Target	Achievement	% Achievement	Remarks
					<p>The RMCD Service Provider was engaged in developing technical and financial capacities of rice millers. 34 rice millers (F=3, 9%) from target provinces received capacity building training.</p> <p>10 local firms were selected and trained for providing advisory services to rice millers.</p>
25. Five legal and regulatory frameworks will be in place by 2021 to promote rice commercialization	PMO	5	5	<b>100%</b>	Achieved.
26. 300 participants in M&E workshops, training events, seminars, conferences etc. (disaggregated by gender and affiliation)	NIO, PIOs, and PMO capacity building activities for M&E	300	2,067 (Female = 477, 23%)	<b>689%</b>	<p>Achieved.</p> <p>A total of 2,067 participants from EA and IAs, including 477 (23%) females, participated in the M &amp; E capacity building activities.</p>
27. Gender targets are mainstreamed into each of the component outputs under Rice-SDP	Progress Reports		Done	<b>100%</b>	<p>Achieved.</p> <p>GAP included in the Quarterly Progress Reports and AWPB.</p>
28. Food security aspects of the Rice Policy are fully accommodated under Rice-SDP by 2021	PMO		Done	<b>100%</b>	Achieved.

Indicator	Source of Data	Target	Achievement	% Achievement	Remarks
<b>III. SCF- RESULTS FRAMEWORK</b>					
1. 50,000 farmers will benefit from climate resilient irrigation structures by 2021 (2012 baseline: 0)	NIO/MOWRAM	50,000	100,095 (F=51,053, 51%)	<b>200%</b>	Achieved.
2. Enhanced gender mainstreaming (2012 baseline: 0) - a. 30% unskilled laborers employed in the rehabilitation are women by 2021, b. 30% of construction sub-committee members are women, and c. 2 Farmer water user committees established in each irrigation scheme, with women occupying 30% of the management positions	NIO/MOWRAM and PIOs				
<i>a. 30% unskilled laborers employed in the rehabilitation are women by 2021</i>	NIO/MOWRAM	30%	40.4% women  (3,259 females among 8,057 total unskilled laborers)	<b>133%</b>	Achieved.  40% in ADB DMF  Irrigation Scheme = 8,057 (F = 3,259, 40.4%).  In addition, PDS facilities = 854 (F = 361, 42%), SPS facilities = 563 (F = 181, 32%), AC Storage & FWUC building by MEF= 126 (F=83, 66%), and Seed storage warehouse by MAFF = 177 (F = 105, 59%).  Total 3,989 (41%) females among 9,777 total unskilled laborers.
<i>b. 30% of construction sub-committee members are women</i>	PIOs	30%	55% women	<b>183%</b>	Achieved.  50% in ADB DMF

Indicator	Source of Data	Target	Achievement	% Achievement	Remarks
			(113 females among 204 total members)		
<i>c. 1 Farmer water user committees established in each irrigation scheme, with women occupying 30% of the management positions</i>	PIOs	one (1) FWUC per irrigation scheme; and  30% women in management positions	one (1) FWUC per irrigation scheme established (a total of 9 FWUCs for 9 schemes established)  48% women (106 females among 223 total members)	<b>100%</b>  <b>160%</b>	Achieved.  Same as ADB DMF  - FWUC Committee= 223 (F= 106, 48%)  -FWUC Advisory Committee 84 (F= 45, 54%)  The total Members of FWUC Committee + Advisory Committee= 307 (F= 151, 49%)
3. At least 5 local engineering firms will practice commercial design and construction of irrigation system that incorporated climate resilience options by 2021 (baseline: 0)	NIO/MOWRAM	At-least 5 local firms	7	<b>140%</b>	Achieved.
4. 120,000 ha of rice producing areas covered by WICI within the three participating provinces by 2023 (50% of the policy-holders is women) (2012 baseline: 0)	PMO	120,000 ha  50% policy holders women	160,376 ha.  53% (133,198 Farmer households, F = 71,156)	<b>134%</b>  <b>106%</b>	Achieved.  120,000 ha in ADB DMF and GAFSP  2021= 887ha; 2022= 2,424 ha; 2023= 80,962 ha; and 2024= 76,103 ha.  2021= 675/336F; 2022= 1,620/797F; 2023=

Indicator	Source of Data	Target	Achievement	% Achievement	Remarks
					54,800/28,336F; and 2024= 76,103/41,687F
5. 15 agricultural cooperatives (ACs), 2 insurance companies, 1 local financial institution, and 1 local agribusiness entity participating in the pilot tests in target provinces (2012 baseline: 0)	PMO	15 ACs	22 ACs	<b>147%</b>	Achieved.
		3 local financial institutions	6 (FORTE Insurance (Cambodia) Plc., Ly Hour Insurance Plc., AMK Microfinance Institution, LOLC Microfinance Institution, AMRET Microfinance Institution, and ACLEDA Bank Plc.)	<b>200%</b>	Same as ADB DMF
		1 local marketing agencies	1 (Nelida Co Ltd.)	<b>100%</b>	
6. Two seed drying and storage facilities constructed by 2021 with a combined storage capacity of 6,400 tons (30% unskilled laborers and 50% administrative staff are women)	NIO/MAFF	2	2	<b>100%</b>	Achieved.
		6,400 tons	6,400 tons	<b>100%</b>	Same as ADB DMF
		30% unskilled women	44%	<b>147%</b>	Construction of 2 SPS facilities at Battambang and Prey Veng were completed (100%) and made operational. The two SPS facilities were able to process at least 1,200 tons rice seed per season and store 6,400 tons rice seed.
		50% administrative staff women	57%	<b>114%</b>	Unskilled labor during operation phase total = 61 (F = 27, 44%)

Indicator	Source of Data	Target	Achievement	% Achievement	Remarks
					Admin staff during operation phase total = 23 (F = 13, 57%).
7. Capacity for drying paddy in target provinces extended by 2,000 tons per day by 2021	PMO	2,000 tons/day	2,780 tons/day	<b>139%</b>	Achieved.  Same as ADB DMF
8. Capacity for paddy storage in target provinces extended by 40,000 tons by 2021	PMO	40,000 tons	62,850 tons	<b>157%</b>	Construction of 5 PDS facilities at Lim Heng Leap Rice Mill, 1688 Rice Mill, Chhun Thom Rice Mill, Phou Poy Rice Mill and City Rice Mill were completed (100%) and made operational.  Unskilled labor during operation phase total = 1,110 (F = 365, 33%)  Admin staff during operation phase total = 144 (F = 75, 52%).
9. 30% of farmers (disaggregated by sex) have leveled their paddy fields in target provinces by 2021 (2012 baseline: 0)	PIOs	30%	63.9% of farmers (65.6% of female farmers)	<b>213%</b>	Achieved.  Same as ADB DMF  Endline Survey in 2024 found that 63.9% of farmers adopted land levelling (65.6% of Female Farmers).  Through direct intervention, the project covered 304,861 farmers, including 154,819 (51%) females (Original project =270,813 farmers including 137,738

Indicator	Source of Data	Target	Achievement	% Achievement	Remarks
					<p>females and AF project = 34,048 farmers including 17,081 females) under the land levelling activities.</p> <p>Farmers who adopted land levelling in the Rice SDP target area = 304,861/665,520 = 45.8%.</p> <p><i>Thus, achievement through direct coverage was 153% (45.8%/30%)</i></p>
10. At least nine private contractors in three project provinces engaged and trained to offer land leveling services by 2021 (2012 baseline: 0)	PIOs	9 private contractors	12 private contractors engaged	<b>133%</b>	<p>Achieved.</p> <p>A total of 12 contractors were employed, including 4 (33%) female contactors.</p>
11. Twenty private contractors, including 5 led by female entrepreneurs, replicated offering land leveling services at their own initiatives in three participating provinces by 2021 (2012 baseline: 0).	PIOs	20 private contractors, including 5 led by female entrepreneurs	24 private contractors including 7 led by female entrepreneurs (29% female)	<b>120%</b>  Female = <b>140%</b>	<p>Achieved.</p> <p>MAFF-NIO provided 3 capacity building training to potential LLL contractors. A total of 41 contractors including 7 Females, 17% participated in the trainings. Out of these trained contractors, 24 participated in all 3 trainings, 6 participated in 2 trainings and, 11 participated in only 1 training.</p> <p>The 24 contractors including 7 led by female entrepreneurs replicated offering land leveling</p>

Indicator	Source of Data	Target	Achievement	% Achievement	Remarks
					services at their own initiatives
12. Strengthened capacity of provincial departments in Project provinces in improving efficiency of irrigation water use through land leveling - baseline: 0% paddy land area leveled, target: 15% paddy land area leveled by 2021	PIOs	15% paddy land area leveled	28.4% paddy land area leveled	<b>189%</b>	Achieved.  Endline Survey in 2024 found that 28.4% paddy land area leveled.  Through direct intervention, the project covered 155,535 ha (original project = 138,869 ha, and AF project= 16,666 ha under the land levelling activities.  Total land area levelled in the Rice SDP target area = 155,535/609,136 = 25.5%.  <i>Thus, achievement through direct coverage was 170% (25.5%/15%).</i>
13. A joint working group including female representatives established by the government to develop agricultural land-use zoning as a climate adaptation strategy; developed and issued a framework providing procedures for establishing agricultural land-use zones, incorporating measures and targets for involving women in planning and decision making	NIO/MLMUPC	No quantitative target	808 (F=133, 16%)	<b>100%</b>	Achieved.  A joint working group including female representatives was established by the government (MLMUPC) to develop agricultural land-use zoning as a climate adaptation strategy; developed and issued a framework
14. 30% of rice mills in three project provinces equipped with knowledge to address change in paddy supply	NIO/MAFF	30% of rice mills in target provinces	62%	<b>207%</b>	Achieved.

Indicator	Source of Data	Target	Achievement	% Achievement	Remarks
patterns induced by climate change by 2021 (2012 baseline: 0)			(8 out of 13 rice mills)		<p>Survey Report in September 2018 found 8 out of 13 (62%) Rice Millers confident of managing paddy supply even if supply affected by climate change.</p> <p>Several rice millers participated in the study tours on modern rice processing technology in Cambodia, Thailand, and Malaysia and in the workshops conducted in Cambodia.</p> <p>The project implemented the Rice Millers Capacity Development initiative and strengthened the financial and technical management capacity of 34 rice millers, including 3 (9%) female rice millers.</p>
15. Post-harvest losses reduced from 15% of crop yield in 2012 to 10% of crop yield by 2021.	NIO/MAFF	Loss reduced from 15% of crop yield in 2012 to 10%	Post-harvest losses reduced from 15% to 9.9%	<b>102%</b>	<p>Achieved.</p> <p>Endline Survey in 2024.</p> <p>Crop survey in 2021 found that the post-harvest loss was 23.42%. Thus, losses reduced from 23.42% to 9.9%, means 270% achievement.</p>
16. 10 Local firms participating in providing advisory services to rice millers by 2021 (2012 baseline: 0)	NIO/MAFF	10 local firms	10	<b>100%</b>	<p>Achieved.</p> <p>Same as ADB DMF.</p>

Indicator	Source of Data	Target	Achievement	% Achievement	Remarks
					<p>A Rice Millers Capacity Development (RMCD) Service Provider was engaged in developing technical and financial capacities of rice millers. 34 rice millers (F=3, 9%) from target provinces received capacity building training.</p> <p>10 local firms were selected and trained by RMCD for providing advisory services to rice millers.</p>
17. Increased leverage factor of PPCR funding, reflected by an estimated \$5 million from private sector mills by 2021 to address change in paddy supply patterns induced by climate change (2012 baseline: 0)	PMO	US \$ 5 million	US \$13.37 million	<b>267%</b>	<p>Achieved.</p> <p>Based on the additional capital investment of each rice miller after installment of PDS Facilities.</p>
18. 120,000 ha of paddy areas in three Project provinces covered by WICI by 2023 (2012 baseline: 0).	PMO	120,000 ha.	160,376 ha	<b>134%</b>	<p>Achieved.</p> <p>DMF and GAFSP (120,000 ha)</p> <p>Same as SCF (Indicator 4)</p> <p>2021= 887ha; 2022= 2,424 ha; 2023= 80,962 ha; and 2024= 76,103 ha.</p>
19. 50% of insured rice farmers (i.e., policy-holders) is women	PMO	50% insured are women	53% (133,198 Farmer households, F = 71,156)	<b>106%</b>	<p>Achieved.</p> <p>2021= 675/336F; 2022= 1,620/797F; 2023= 54,800/28,336F; and 2024= 76,103/41,687F</p>

Indicator	Source of Data	Target	Achievement	% Achievement	Remarks
20. Enhanced capacities and participation of the private sector in paddy crop risk mitigation, reflected by a. 15 agricultural cooperatives (ACs), b. 2 insurance companies and 1 local financial institution, and c. 1 local agribusiness entity participating in the pilot tests in target provinces (2012 baseline: 0)	PMO				
a. 15 agricultural cooperatives (ACs)		15	22	<b>147%</b>	Achieved. Same as ADB DMF and SCF (Indicator 5)
b. 2 insurance companies and 1 local financial institution		3	6	<b>200%</b>	Achieved. Same as ADB DMF and SCF (Indicator 5)  Insurance Company: FORTE Insurance (Cambodia) Plc. and Ly Hour Insurance Plc.  Local Financial Institution: AMK Microfinance Institution, LOLC Microfinance Institution, AMRET Microfinance Institution, and ACLEDA Bank Plc..
c. 1 local agribusiness entity		1	1	<b>100%</b>	Achieved. Same as ADB DMF and SCF (Indicator 5)  Nelida Co Ltd.
21. 3 important legal documents (a law, a policy and an action program)	MAFF/NIO	3	3	<b>100%</b>	Achieved.

Indicator	Source of Data	Target	Achievement	% Achievement	Remarks
will be in place by 2016 to address climate change risks and/or adjusted to incorporate climate change risks, including (i) Law on Management and Use of Agricultural Land (ii) Framework providing procedures for establishing agricultural land-use zones; and (iii) National action program to combat land degradation in Cambodia.					(i) Law on Management and Use of Agricultural Land completed in November 2017; (ii) Framework providing procedures for establishing agricultural land-use zones completed in February 2019; and (iii) National action program to combat land degradation in Cambodia completed in April 2018.

### Appendix 3 - Summary of Project Performance Monitoring

#### 1A. CAPACITY BUILDING - 11,500 MAN-DAYS

By Organization	Total					% by Number of Programs	% by Number of Days
Total – Original Project (Rice-SDP)	6,422	12,470	298,806	154,019	52	100	100
Total - Additional Financing (AF)	1,806	1,522	74,370	39,393	53	100	100
<b>Total Rice-SDP + AF</b>	<b>8,228</b>	<b>13,992</b>	<b>373,176</b>	<b>193,412</b>	<b>52</b>	<b>100</b>	<b>100</b>

Target = 11,500 man-days

Achievement = 13,992 man-days

% Achievement = 122%

Female % achievement =  $52/50 \times 100 = 104\%$

#### 1B. CAPACITY BUILDING

Organization	Farmers + Community Members			Officials			Private Sector + Others			GRAND TOTAL		
	Total	Female	% Female	Total	Female	% Female	Total	Female	% Female	Total	Female	% Female
Total - Rice-SDP	279,960	149,472	53	16,027	3,697	23	2,819	850	30	298,806	154,019	52
Total - AF	72,160	38,692	54	1,332	332	25	878	369	42	74,370	39,393	53
<b>Total Rice-SDP + AF</b>	<b>352,120</b>	<b>188,164</b>	<b>53</b>	<b>17,359</b>	<b>4,029</b>	<b>23</b>	<b>3,697</b>	<b>1,219</b>	<b>33</b>	<b>373,176</b>	<b>193,412</b>	<b>52</b>
<b>% by participants</b>	<b>94</b>	-----	-----	<b>5</b>	-----	-----	<b>1</b>	-----	-----	<b>100</b>	-----	-----

**2. POSTHARVEST TECHNOLOGY CAPACITY BUILDING (50,000 MAN-DAYS)**

Organization	Number of capacity building programs	Total days	Total participants	Total Client days	Total female participants	Female Client days	% Female Client Days	% Female Participants
<b>1. Rice-SDP</b>								
A. MAFF	96	211	3,099	6,793	1,575	3,388	50	51
B. PIOs	429	576	26,025	563,136	15,187	326,181	58	58
<b>Total RICE-SDP</b>	<b>525</b>	<b>787</b>	<b>29,124</b>	<b>569,929</b>	<b>16,762</b>	<b>329,569</b>	<b>58</b>	<b>58</b>

Organization	Number of capacity building programs	Total days	Total participants	Total Client days	Total female participants	Female Client days	% Female Client Days	% Female Participants
<b>2. AF</b>								
A. MAFF	6	6	243	243	56	56	23	23
B. PIOs	320	190	12,094	22,223	7,148	13,319	60	59
<b>Total AF</b>	<b>326</b>	<b>196</b>	<b>12,337</b>	<b>22,466</b>	<b>7,204</b>	<b>13,375</b>	<b>60</b>	<b>58</b>

**3. Rice-SDP + AF**

Organization	Number of capacity building programs	Total days	Total participants	Total Client days	Total female participants	Female Client days	% Female Client Days	% Female Participants
A. MAFF	102	217	3,342	7,036	1,631	3,444	49	49
B. PIOs	749	766	38,119	585,359	22,335	339,500	58	59
<b>GRAND TOTAL (Rice-SDP +AF)</b>	<b>851</b>	<b>983</b>	<b>41,461</b>	<b>592,395</b>	<b>23,966</b>	<b>342,944</b>	<b>58</b>	<b>58</b>

Target = 50,000 client days

Achievement = 592,395 client days

% Achievement = 489%

Female % achievement =  $58/50 \times 100 = 116\%$

### 3. APPLICATION OF MODERN PRODUCTION TECHNOLOGY

Project	Area in Ha.
1. Rice-SDP	161,470
2. AF	17,260
<b>3. Total</b>	<b>178,730</b>

Target	30,000
Achievement	178,730
% Achievement	596

### 4.FARMER FIELD SCHOOL (FFS)

Organization	Number of FFSs Planned	Number of FFSs completed	Total No. of Training Days	Participants Attended		
				Total	Female	% Female
1. MAFF NIO	265	265	3,180	8,459	5,160	61
2. PIOs	33	33	396	7,316	4,390	60
<b>GRAND TOTAL</b>	<b>298</b>	<b>298</b>	<b>3,576</b>	<b>15,775</b>	<b>9,550</b>	<b>61</b>

Note: Only under Rice-SDP. No FFS under AF.

### 5A. LAND LEVELLING (FARM HOUSEHOLDS)

Province	Farm Households	Female Headed Farm Households	% FHH	Total Households in the Rice-SDP coverage area	% Farm Households under LL to Total Farm Households in the Rice-SDP coverage area
1. Rice-SDP	82,495	12,113	15%	196,082	46.5
2. AF	8,677	1,352	16%		
<b>Total (Rice-SDP + AF)</b>	<b>91,172</b>	<b>13,465</b>	<b>15</b>		

Target (Households):	30,000
Achievement (Households):	91,172
% Achievement:	304%

Remarks:Rice-SDP

- Rice-SDP laser land levelling (LLL) = 2,689 farm households (F=369, 14%)
- Voluntary LLL = 179 (F=36, 20%)

Sub-total LLL = 2,868 (F = 405, 14%)

- Modern (mechanized) Land Levelling = 79,627 (F=11,708, 15%)

Total (LLL + Modern LL) for Rice-SDP= 82,495 (F=12,113, 15%).

Under AF, only Modern LL = 8,677 (1,352, 16%)

Grand total (Rice-SDP + AF) = 91,172 HHs (F = 13,465, 15%). It is 46.5% of the total HHs in Rice-SDP coverage that is 196,082 HHs.

- Notes: 1. Through the "Agriculture Productivity Training", LLL and modern land levelling are promoted.  
2. Modern LL is done using tractor and hand-tractor in the rehabilitated irrigation areas under the project.

**5B. LAND LEVELLING (FARMERS)**

Province	Farmers (Total)	Female Farmers	% Female Farmers	Total Paddy Farmers in the Rice-SDP coverage area	% Farmers under LL to Total Farmers in the Rice-SDP coverage area
1. Rice-SDP	270,813	137,738	51	<b>665,520</b>	<b>45.8</b>
2. AF	34,048	17,081	50		
<b>Total (Rice-SDP +AF)</b>	<b>304,861</b>	<b>154,819</b>	<b>51</b>		

Target (Farmers): 665,520  
Achievement (Farmers): 304,861  
% Achievement: 45.8%

Target (30% of the farmers covered in Rice-SDP target area): 30.0%  
Achievement (% covered): 45.8%  
% Achievement: 153%

Remarks:Rice-SDP

- LLL = 9,718 farmers (F=5,351, 55%);
- Voluntary LLL = 316 (F=99, 31%);
- Modern LL = 260,779 (F=132,288, 51%)
- Total (LLL + Modern LL) = 270,813 (F=137,738, 51%).

Under AF, Modern LL only = 34,048 (F = 17,081, 50%)

Grand Total (Rice-SDP + AF), 45.8% of the farmers in the Rice-SDP coverage area have adopted LLL + Modern LL (304,861/665,520 = 45.8%). Female is 154,819 (51%).

*The achievement is 153% (45.8%/30%).*

**5C. LAND LEVELLING (AREA COVERAGE)**

Province	Area in Ha.	Total Area in the Rice-SDP coverage area (Ha.)	% Area under LL to total area in the Rice-SDP coverage area
1. Rice-SDP	138,869	<b>609,136</b>	<b>25.5</b>
2. AF	16,666		
<b>Total (Rice-SDP +AF)</b>	<b>155,535</b>		

- Notes: 1. Through the "Agriculture Productivity Training", LLL and modern land levelling are promoted.  
2. Modern LL is done using tractor and hand-tractor in the rehabilitated irrigation areas under the project.

Total Target Area (Hectares): 609,136  
Achievement (Hectares): 155,535  
% Achievement: 25.5%

Target (15% of the paddy area covered in Rice-SDP target area): 15.0%  
Achievement (% covered): 25.5%  
% Achievement: 170%

Remarks:Rice-SDP

LLL = 2,077.67 ha.

Voluntary LLL = 890.28 ha.

Sub-total LLL = 2967.95 ha.

Modern LL = 135,901 ha.

Total (LLL + Modern LL) = 138,869 ha.

Under AF, Modern LL= 16,666 ha.

Grand total land (Rice-SDP + AF) =138,869+16,666=155,535 ha.

The *total Rice-SDP coverage area for all the 3 provinces* (609,136 ha.), the achievement is 25.5% (155,535/609,136). *Net achievement is 25.5% / 15% x 100 = 170%.*

## 6. FWUC + AC HOUSEHOLD MEMBERS

### A. FWUC ONLY

Province	Total	FHH	% F
1. Battambang	5,519	976	18
2. Kampong Thom	5,447	845	16
3. Prey Veng	6,904	1,360	20
<b>Total</b>	<b>17,870</b>	<b>3,181</b>	<b>18</b>

### B. AC ONLY

Province	Total	Female	% F
1. Battambang	5,681	3,295	58
2. Kampong Thom	874	568	65
3. Prey Veng	1,895	1,213	64
<b>Total</b>	<b>8,450</b>	<b>5,076</b>	<b>60</b>

### C. GRAND TOTAL

Province	Total	FHH	% F
1. Battambang	11,200	4,271	38
2. Kampong Thom	6,321	1,413	22

<b>3. Prey Vemg</b>	8,799	2,573	29
<b>Total</b>	<b>26,320</b>	<b>8,257</b>	<b>31</b>

Target (Households): 26,000  
 Achievement (Households): 26,320  
 % Achievement: 101%

### 7A. SEED PRODUCTION (Rice-SDP)

Project	Registered Seed			Certified Seed			Total Seeds		
	Area in Ha.	Production in tons	Yield (Ton /ha)	Area in Ha.	Production in tons	Yield (Ton /ha)	Area in Ha.	Production in tons	Yield (Ton /ha)
<b>Total</b>	<b>98.50</b>	<b>230.65</b>	<b>2.34</b>	<b>3,901.68</b>	<b>9,740.98</b>	<b>2.50</b>	<b>4,000.18</b>	<b>9,971.63</b>	<b>2.49</b>

#### Rice-SDP

Target (Tons): Total: 9600.00 ton Per Annum: 2400 ton  
 Achievement (Tons): Total: 9971.63 ton Per Annum: 2493 ton  
 % Achievement: 104% 104%

#### REGISTERED SEED PRODUCTION DETAILS (Rice-SDP)

Agriculture Stations	Year	PLAN (TARGET)			ACHIEVEMENT		
		Cultivated area as per the Contract (Ha.)	Quantity of Seed Produced as per the Contract (Tons)	Yield Tons/Ha	Harvested Area (Ha.)*	Quantity of Seed Produced (Tons)	Yield Tons/Ha
<b>Battambang - Toul Samroung Stations</b>	2016-2017	13.00	29.50	2.27	13.00	29.50	2.27
	2017-2018	8.00	18.80	2.35	8.00	18.80	2.35
	2018-2019	22.00	52.60	2.39	22.00	52.60	2.39
	2019-2020	80.00	176.00	2.38	7.00	15.40	2.20
<b>Sub Total</b>		<b>123.00</b>	<b>276.90</b>	<b>2.37</b>	<b>50.00</b>	<b>116.30</b>	<b>2.33</b>
<b>Kampong Thom - Balang Station</b>	2016-2017	3.00	6.60	2.20	3.00	6.60	2.20
	2017-2018	4.00	9.40	2.35	4.00	9.40	2.35
	2018-2019	8.00	18.80	2.35	8.00	18.80	2.35

Agriculture Stations	Year	PLAN (TARGET)			ACHIEVEMENT		
		Cultivated area as per the Contract (Ha.)	Quantity of Seed Produced as per the Contract (Tons)	Yield Tons/Ha	Harvested Area (Ha.)*	Quantity of Seed Produced (Tons)	Yield Tons/Ha
	2019-2020	10.00	24.40	2.44	10.00	24.40	2.44
<b>Sub Total</b>		<b>25.00</b>	<b>59.20</b>	<b>2.37</b>	<b>25.00</b>	<b>59.20</b>	<b>2.37</b>
<b>Prey Veng - Prey Kandieng Station</b>	2016-2017	2.00	4.40	2.20	2.00	4.40	2.20
	2017-2018	3.00	7.20	2.40	3.00	7.20	2.40
	2018-2019	10.00	23.80	2.38	10.00	23.80	2.38
	2019-2020	8.50	19.75	2.32	8.50	19.75	2.32
<b>Sub Total</b>		<b>23.50</b>	<b>55.15</b>	<b>2.35</b>	<b>23.50</b>	<b>55.15</b>	<b>2.35</b>
<b>TOTAL OF 3 STATIONS</b>	<b>2016-2017</b>	<b>18.00</b>	<b>40.50</b>	<b>2.25</b>	<b>18.00</b>	<b>40.50</b>	<b>2.25</b>
	<b>2017-2018</b>	<b>15.00</b>	<b>35.40</b>	<b>2.36</b>	<b>15.00</b>	<b>35.40</b>	<b>2.36</b>
	<b>2018-2019</b>	<b>40.00</b>	<b>95.20</b>	<b>2.38</b>	<b>40.00</b>	<b>95.20</b>	<b>2.38</b>
	<b>2019-2020</b>	<b>98.50</b>	<b>220.15</b>	<b>2.38</b>	<b>25.50</b>	<b>59.55</b>	<b>2.34</b>
<b>GRAND TOTAL</b>		<b>171.50</b>	<b>391.25</b>	<b>2.36</b>	<b>98.50</b>	<b>230.65</b>	<b>2.34</b>

Note: \* Significantly impacted during flood 2020

#### REGISTERED SEED PRODUCTION - BY SOURCE OF FUNDS - Rice-SDP

Agriculture Stations	Year	Number of Contracts with the Station	Harvested Area per Contract (Ha.)	Quantity of Seed Produced per Contract (Tons)	Source of Fund
<b>TOTAL OF 3 STATIONS</b>	2016-2017	3	18.00	40.50	Grant 0349 (90%), Govt.(10%)
	2017-2018	3	15.00	35.40	Grant 0349 (90%), Govt.(10%)
	2018-2019	3	40.00	95.20	Grant 0349 (90%), Govt.(10%)
	2019-2020	3	25.50	59.55	Grant 0349 (90%), Govt.(10%)
<b>GRAND TOTAL</b>		<b>12</b>	<b>98.50</b>	<b>230.65</b>	

The *fragrant certified seed production* was 9740.98 tons which was produced covering 3,901.68 ha. The production of certified seeds by Agriculture Cooperatives (ACs) and farmers were given in the Table below. In total, from 2016-2020, there were 56 contracts.

The grand total of *fragrant certified + registered fragrant seed production* was 9971.63 tons for 4 years covering 4000.18 ha (*annual average production was 2493 tons*). This is *104% of the DMF Target of 2400 tons per annum (2400 tons x 4 years = 9600 tons) of fragrant seed production of registered and certified seeds*.

#### CERTIFIED SEED PRODUCTION - DETAILS BY AGRICULTURAL COOPERATIVES (Rice-SDP)

PRODUCTION PROVINCE	Year	Number of Contracts with AC	Harvested Area per Contract (Ha.)	Quantity of Seed Produced per Contract (Tons)	Source of Fund
<b>BATTAMBANG PROVINCE</b>	2016-2017	0	0.00	0.00	
	2017-2018	4	8.00	19.40	Grant 0349 (90%), Govt.(10%)
	2018-2019	8	52.00	155.90	Grant 0349 (90%), Govt.(10%)
	2019-2020	5	11.00	25.33	Grant 0349 (90%), Govt.(10%)
<b>Sub Total</b>		<b>17</b>	<b>71.00</b>	<b>200.63</b>	
<b>KAMPONG THOM PROVINCE</b>	2016-2017	0	0.00	0.00	
	2017-2018	6	7.00	16.60	Grant 0349 (90%), Govt.(10%)
	2018-2019	5	50.00	110.95	Grant 0349 (90%), Govt.(10%)
	2019-2020	3	30.00	66.00	Grant 0349 (90%), Govt.(10%)
<b>Sub Total</b>		<b>14</b>	<b>87.00</b>	<b>193.55</b>	
<b>PREY VENG PROVINCE</b>	2016-2017	0	0.00	0.00	
	2017-2018	4	5.00	12.05	Grant 0349 (90%), Govt.(10%)
	2018-2019	6	50.00	118.70	Grant 0349 (90%), Govt.(10%)
	2019-2020	3	33.00	76.84	Grant 0349 (90%), Govt.(10%)
<b>Sub Total</b>		<b>13</b>	<b>88.00</b>	<b>207.59</b>	
<b>TOTAL OF 3 PROVINCES</b>	<b>2016-2017</b>	<b>0</b>	<b>0.00</b>	<b>0.00</b>	
	<b>2017-2018</b>	<b>14</b>	<b>20.00</b>	<b>48.05</b>	Grant 0349 (90%), Govt.(10%)
	<b>2018-2019</b>	<b>19</b>	<b>152.00</b>	<b>385.55</b>	Grant 0349 (90%), Govt.(10%)

PRODUCTION PROVINCE	Year	Number of Contracts with AC	Harvested Area per Contract (Ha.)	Quantity of Seed Produced per Contract (Tons)	Source of Fund
	2019-2020	11	74.00	168.17	Grant 0349 (90%), Govt.(10%)
<b>GRAND TOTAL</b>		<b>44</b>	<b>246.00</b>	<b>601.77</b>	

#### CERTIFIED SEED PRODUCTION - DETAILS BY FARMERS (Rice-SDP)

PRODUCTION PROVINCE	Year	Number of Contracts with Farmers	Harvested Area per Contract (Ha.)	Quantity of Seed Produced per Contract (Tons)	Source of Fund
<b>BATTAMBANG PROVINCE</b>	2016-2017		368.75	921.88	Not applicable
	2017-2018		235.00	587.50	
	2018-2019		657.50	1643.75	
	2019-2020		965.06	2412.66	
<b>Sub Total</b>		<b>0</b>	<b>2226.31</b>	<b>5565.79</b>	
<b>KAMPONG THOM PROVINCE</b>	2016-2017		82.50	206.25	Not applicable
	2017-2018		117.50	293.75	
	2018-2019		235.00	587.50	
	2019-2020		305.00	762.50	
<b>Sub Total</b>		<b>0</b>	<b>740.00</b>	<b>1850.00</b>	
<b>PREY VENG PROVINCE</b>	2016-2017		55.00	137.50	Not applicable
	2017-2018		90.00	225.00	
	2018-2019		297.50	743.75	
	2019-2020		246.87	617.18	
<b>Sub Total</b>		<b>0</b>	<b>689.37</b>	<b>1723.43</b>	
<b>TOTAL OF 3 PROVINCES</b>	<b>2016-2017</b>	<b>0</b>	<b>506.25</b>	<b>1265.63</b>	Not applicable
	<b>2017-2018</b>	<b>0</b>	<b>442.50</b>	<b>1106.25</b>	

PRODUCTION PROVINCE	Year	Number of Contracts with Farmers	Harvested Area per Contract (Ha.)	Quantity of Seed Produced per Contract (Tons)	Source of Fund
	2018-2019	0	1190.00	2975.00	
	2019-2020	0	1516.93	3792.34	
<b>GRAND TOTAL</b>		<b>0</b>	<b>3655.68</b>	<b>9139.21</b>	

#### SUMMARY OF ACs INVOLVED IN CERTIFIED SEED PRODUCTION (Rice-SDP)

No.	Name of provinces	Name of ACs
1.	Battambang	8
2.	Kampong Thom	9
3.	Prey Veng	6
<b>GRAND TOTAL</b>		<b>23</b>

#### SUMMARY OF CERTIFIED SEED PRODUCTION SALE BY THE AGRICULTURAL COOPERATIVES TO THE FARMERS (Rice-SDP)

No.	Province	Qty of Certified Seeds Sold (Tons)
1	Battambang	5857.11
2	Kampong Thom	1868.49
3	Prey Veng	2015.38
<b>TOTAL</b>		<b>9740.98</b>

**7B. SEED PRODUCTION DETAILS - ADDITIONAL FINANCING (AF)****Seed Production (AF)**

Seed Categories	Production Season	Number of Contracts	Harvested Area (Ha.)	Quantity of Seed Produced (Tons)	Source of Fund
<b>A. CERTIFIED SEEDS</b>					
- Agriculture Stations	2023	4	378.00	1245.00	Grant 0818 (90%), Govt.(10%)
<b>Sub-total Agriculture Stations</b>		<b>4</b>	<b>378.00</b>	<b>1245.00</b>	
<b>B. CERTIFIED SEEDS</b>					
- Agriculture Cooperatives	2023	15	216.00	555.00	Grant 0818 (90%), Govt.(10%)
<b>Sub-total Agriculture Cooperatives</b>		<b>15</b>	<b>216.00</b>	<b>555.00</b>	
- Farmers	2023	0	0.00	0.00	Not applicable
<b>Sub-total Farmers</b>		<b>0</b>	<b>0.00</b>	<b>0.00</b>	
<b>Grand Total certified seeds</b>	-----	<b>19</b>	<b>594.00</b>	<b>1800.00</b>	

Target (tons): 1,800  
Achievement (tons) 1,800  
% Achievement: 100%

**Sale of Seeds (AF)**

Province	Number of Farmers Receiving Good Quality Seeds	Qty of Seeds purchased (Tons)
<b>1. Prey Veng</b>	2,914	147.00
<b>2. Kampong Thom</b>	7,651	271.60
<b>3. Battambang</b>	12,980	1024.40
<b>Total</b>	<b>23,545</b>	<b>1443.00</b>

Note:

1. Target was 1,800 tons of quality rice seeds through contract farming by government seed centers and ACs (100% achieved).
2. Out of 1,800 tons produced, 1,443 tons were sold and the balance 357 tons retained

Target (Farmers)	22,000
Achievement (Farmers)	23,545
% Achievement	107

**8. WICI INSURANCE BY FARMERS**

1. *At least 120,000 ha of rice producing areas covered by WICI (at least 50% of the policy holders are women) (2021 baseline: 0 ha covered by WICI) (OP 2.5.3, OP 3.2.3)*

**NUMBER OF FARMERS PURCHASED THE WICI POLICY BY PRODUCT OPTIONS - CUMULATIVE (Rice-SDP + AF)**

No.	Policy Purchased by Options	Number of Farmers (HH) Purchased WICI Product	Female	% Female	Total Rice Land Size, Ha
1	A	44,103	20,949	48	58,347
2	B	31,183	15,972	51	37,798
3	C	26,659	14,275	54	28,970
4	D	31,253	19,960	64	35,261
<b>Total</b>		<b>133,198</b>	<b>71,156</b>	<b>53</b>	<b>160,376</b>

**NUMBER OF FARMERS PURCHASED THE WICI POLICY BY PROVINCES - CUMULATIVE (Rice-SDP + AF)**

No.	Policy Purchased by Provinces	Number of Farmers (HH) Purchased WICI Product			Total Rice Land Size, Ha	% By Province (Number of Farmers)	% By Province (Area Covered)
		Total	Female	% Female			
1	Prey Veng	39,587	21,853	55	44,923	30	28
2	Kampong Thom	42,391	23,030	54	50,717	32	32
3	Battambang	51,220	26,273	51	64,736	38	40
<b>Total</b>		<b>133,198</b>	<b>71,156</b>	<b>53</b>	<b>160,376</b>	<b>100</b>	<b>100</b>
<b>ADB/GAFSP/SCF Target</b>					<b>ADB Target (ha)</b>	<b>GAFSP Target (ha)</b>	<b>SCF Target (ha)</b>
					<b>120,000</b>	<b>120,000</b>	<b>100,000</b>
<b>% Women Target</b>	<b>50</b>	<b>Total Households Target</b>	<b>100,000</b>	<b>Achievement</b>	<b>Achievement</b>	<b>Achievement</b>	
				<b>160,376</b>	<b>160,376</b>	<b>160,376</b>	
<b>Achievement</b>	<b>53</b>	<b>Achievement</b>	<b>133,198</b>	<b>% Achievement</b>	<b>% Achievement</b>	<b>% Achievement</b>	
				<b>133.6</b>	<b>133.6</b>	<b>160.4</b>	
<b>% Achievement</b>	<b>107</b>	<b>% Achievement</b>	<b>133</b>				

**NUMBER OF FARMERS PURCHASED THE WICI POLICY BY YEAR- CUMULATIVE (Rice-SDP + AF)**

No.	By Year	Number of Farmers (HH) Purchased WICI Product			Total Rice Land Size, Ha
		Total	Female	% Female	
1	2021	675	336	50	887
2	2022	1,620	797	49	2,424
3	2023	54,800	28,336	52	80,962
4	2024	76,103	41,687	55	76,103
<b>TOTAL (Rice-SDP + AF)</b>		<b>133,198</b>	<b>71,156</b>	<b>53</b>	<b>160,376</b>

**By Premiums and Payout (Rice-SDP + AF)**

No.	Provinces	Premium Paid (US \$)	Claims			
			Number of Farmers of Claiming	Cultivated rice (ha) under claims	Claim amount (US \$)	Loss Ratio is Claim Amount/Premium Paid (%)
1	Prey Veng	449,230	1,176	1,457	15,870	3.5
2	Kampong Thom	507,170	19,657	20,628	260,070	51.3
3	Battambang	647,360	19,080	23,831	465,199	71.9
<b>Total</b>		<b>1,603,760</b>	<b>39,913</b>	<b>45,916</b>	<b>741,139</b>	<b>46.2</b>

**2. 15 ACs participated in WICI.**

22 Cs (147%) against target of 15 ACs participated in WICI.

**9. WICI CAPACITY BUILDING DETAILS****WICI TRAINING – Rice-SDP + ADDITIONAL FINANCING****(i) CAPACITY BUILDING - FARMERS ONLY**

Source	Total	Female	% Female	Total Target	% Female
1. PIOs	46,418	28,089	61	-----	-----
2. WICI Firm	2,883	1,550	54	-----	-----
3. PMO	1,054	171	16	-----	-----
<b>Sub-total</b>	<b>50,355</b>	<b>29,810</b>	<b>59</b>	-----	-----
4. FORTE Insurance	62,472	30,416	49	-----	-----
<b>GRAND TOTAL</b>	<b>112,827</b>	<b>60,226</b>	<b>53</b>	-----	-----

**(ii) CAPACITY BUILDING – OFFICIALS AND REPRESENTATIVES ONLY**

Type of Trainees	Total	Female	% Female	Target	% Achievement
1. Provincial Officers	1,105	436	39	-----	-----

2. Insurance regulator office, insurance companies, Agric. Research Institutes, MFIs etc.	298	49	16	-----	-----
<b>TOTAL</b>	<b>1,403</b>	<b>485</b>	<b>35</b>	-----	-----

**(iii) CAPACITY BUILDING – Total (Farmers + Officials + Others)**

Category	Total	Female	% Female	Target	% Achievement
1. Farmers	112,827	60,226	53	-----	-----
2. Provincial Officers	1,105	436	39	-----	-----
3. Insurance regulator office, insurance companies, Agric. Research Institutes, MFIs etc.	298	49	16	-----	-----
<b>TOTAL</b>	<b>114,230</b>	<b>60,711</b>	<b>53</b>	-----	-----

**10. AGRICULTURE INPUT SUPPLIER TRAINING - RICE-SDP AND AF**

Province	No. of Programs	Number of Days	Districts Covered	Input Suppliers Trained		
				Total	Female	% Female
1. Rice-SDP	45	119	21	1,398	425	30
2. AF	44	49	47	869	313	36
<b>Total (Rice-SDP +AF)</b>	<b>89</b>	<b>168</b>	<b>68</b>	<b>2,267</b>	<b>738</b>	<b>33</b>

### 11. LAND LEVELING TRAINING

Province	Number of Training Programs	Number of Days	Number of Participants	Number of Female Participants	% Female Participants	Land area covered (Ha) under Training
1. Rice-SDP	1,829	1,513	79,627	40,533	51	135,901
2. AF	180	180	8,677	4,001	46	16,666
<b>Total (Rice-SDP +AF)</b>	<b>2,009</b>	<b>1,693</b>	<b>88,304</b>	<b>44,534</b>	<b>50</b>	<b>152,567</b>

### 12. RICE MILLER CAPACITY DEVELOPMENT

Indicator	No. of training/ workshops conducted	Total Trained	Female	% Female	ADB Target	% achievement to Target
1. 10 rice millers trained through advisory services	3	34	3	9	10	340
2. 100 staff of financial institutions in participating provinces receive training on the needs of farmers wishing to diversify their livelihood sources	3	124	4	3	100	124
3. 1,000 farmers trained in requirements of financial institutions to assist in gaining access to credit by 2018 (with 30% women participants)	16	1,249	566	45	1,000	125

### 13. SUBPROJECTS SUPPORTING EXTENSION CONTRACTS

Province	PIOs		MAFF (Farmer Training)		Total PIOs + MAFF Households
	No. of Contracts	Number of Households	No. of Contracts	Number of Households	
1. Battambang	29	30,056	0	15,744	235,399
2. Kampong Thom	55	154,003			
3. Prey Veng	24	35,596			
<b>Total</b>	<b>108</b>	<b>219,655</b>	<b>0</b>	<b>15,744</b>	<b>235,399</b>

	CONTRACTS	HOUSEHOLDS			
Target	30	30,000			
Achievement	108	235,399			
% Achievement	360	785			

#### 14A. SEED PROCESSING AND STORAGE FACILITIES (SPSF)

##### STATUS OF SPSF AND STORAGE CAPACITY

No.	Name of the Facility Owner	Drying Building Size	Storage Building Size	Storage capacity in Tons			Remarks (include % physical construction completed)
				Target	Plan	Actual	
1.	Prey Kandieng agricultural station. Prey Veng	540 m <sup>2</sup>	1260 m <sup>2</sup>	3,200	3,200	3,200	100.0%
	<b>Total</b>			<b>3,200</b>	<b>3,200</b>	<b>3,200</b>	
2.	Ang Por agricultural station, Battambang	540 m <sup>2</sup>	1260 m <sup>2</sup>	3,200	3,200	3,200	100.0%
	<b>Total</b>			<b>3,200</b>	<b>3,200</b>	<b>3,200</b>	
	<b>Overall of Provinces</b>			<b>6,400</b>	<b>6,400</b>	<b>6,400</b>	<b>100.0%</b>

**Note:** Targets:

2a. DMF Target: 2 seed drying and storage facilities constructed (GAFSP = 6 public-private SPSF and PDSF installed)

2b. Total storage capacity (6,400 tons)

2c. 30% unskilled laborers are women

2d. 50% administrative staff are women

Achievements: 100% completed (Prey Veng = 100% and Battambang = 100%) with a combined capacity of 6,400 tons.

**14B. SPSF FARMER AND HOUSEHOLD BENEFICIARIES**

Provinces	Farmers (persons) benefited from the storage facilities			Farm Households (HH) benefited from the storage facilities		
	Total Persons	Female	% Female	Total HH	Female headed HH	% Female HH
1. Prey Veng	2,500	1,000	40	500	45	9.0
2. Battambang	2,500	900	36	500	50	10.0
<b>Total</b>	<b>5,000</b>	<b>1,900</b>	<b>38</b>	<b>1,000</b>	<b>95</b>	<b>9.5</b>

**14C. CIVIL WORKS EMPLOYMENT DATA FOR SPSF**

Provinces	Total (Skilled + Unskilled)			Unskilled Employment			Skilled Employment		
	Total	Female	% Female	Total	Female	% Female	Total	Female	% Female
1. Prey Veng	333	75	23	258	75	29	75	0	0
2. Battambang	450	106	24	305	106	35	145	0	0
<b>Total</b>	<b>783</b>	<b>181</b>	<b>23</b>	<b>563</b>	<b>181</b>	<b>32</b>	<b>220</b>	<b>0</b>	<b>0</b>

Achievements: 783 have been employed under civil works (F = 181, 23%). Under the unskilled category, 563 were employed (F = 181, 32%).

**14 D. OPERATIONS EMPLOYMENT DATA FOR SPSF****SKILLED AND UNSKILLED LABOR**

Provinces	Total (Skilled + Unskilled)			Unskilled Employment			Skilled Employment		
	Total	Female	% Female	Total	Female	% Female	Total	Female	% Female
1. Prey Veng	48	21	44	33	14	42	15	7	47
2. Battambang	42	19	45	28	13	46	14	6	43
<b>Total</b>	<b>90</b>	<b>40</b>	<b>44</b>	<b>61</b>	<b>27</b>	<b>44</b>	<b>29</b>	<b>13</b>	<b>45</b>

DMF and GAFSP Target

Unskilled Labor Target 30%

Achievement 44%

% Change 148

**ADMINISTRATIVE STAFF IN THE SPSF OPERATION**

Provinces	Administrative Staff		
	Total	Female	% Female
1. Prey Veng	11	6	55
2. Battambang	12	7	58
<b>Total</b>	<b>23</b>	<b>13</b>	<b>57</b>

DMF and GAFSP Target

Administrative Staff Target 50%

Achievement 57%

% Change 114

**15A. PADDY DRYING AND STORAGE FACILITIES (PDSF)  
STORAGE CAPACITY**

Province	Total Storage Capacity (Tons)	Target (Tons)	Achievement %	Target Source
1. Prey Veng	15,200			
2. Kampong Thom	15,750			
3. Battambang	31,900			
<b>Total</b>	<b>62,850</b>	<b>40,000</b>	<b>157</b>	<b>DMF</b>
		<b>30,000</b>	<b>210</b>	<b>GAFSP/SCF</b>

**DRYING CAPACITY**

Millers	Drying Capacity (tons/day)	Target (Tons) per Day	Achievement %	Target Source
1. City Rice Mill (Battambang)	480			
2. Phou Poy Rice Mill (Battambang)	500-800			
3. 1688 Rice Mill (Kampong Thom)	500-800			
4. Lim Heng Leap Rice Mill (Kampong Thom)	300-500			
5. Chhun Thom Rice Mill (Prey Veng)	500-800			
<b>Total</b>	<b>2,280-3,380</b>			
<b>Average</b>	<b>2,780</b>	<b>2,000</b>	<b>139</b>	<b>DMF/GAFSP/SCF</b>

**15B. LABOR EMPLOYMENT FOR PDSF - CIVIL WORK**

Provinces	Name of the Facility Owner	Grand Total (Skilled + Unskilled)			Unskilled Employment			Skilled Employment		
		Total	Female	% Female	Total	Female	% Female	Total	Female	% Female
<b>I. Prey Veng Province</b>										
	Chhun Thom Rice Mill	327	88	27	180	68	38	147	20	14
<b>II. Kampong Thom Province</b>										
	1688 Rice Mill	453	131	29	292	117	40	161	14	9
	Lim Heng Leap Rice Mill	131	59	45	78	59	76	53	0	0
	<b>Sub-total Kampong Thom</b>	<b>584</b>	<b>190</b>	<b>33</b>	<b>370</b>	<b>176</b>	<b>48</b>	<b>214</b>	<b>14</b>	<b>7</b>
<b>III. Battambang Province</b>										
	Phou Poy Rice Mill	420	100	24	217	86	40	203	14	7
	City Rice Mill	132	36	27	87	31	36	45	5	11
	<b>Sub-total Battambang</b>	<b>552</b>	<b>136</b>	<b>25</b>	<b>304</b>	<b>117</b>	<b>38</b>	<b>248</b>	<b>19</b>	<b>8</b>
<b>Total</b>		<b>1,463</b>	<b>414</b>	<b>28</b>	<b>854</b>	<b>361</b>	<b>42</b>	<b>609</b>	<b>53</b>	<b>9</b>

## Unskilled Employment

Target	40%
Achievement	42%
% Change	106

**15 C. LABOR EMPLOYMENT FOR PDSF - OPERATION PHASE**

Provinces	Name of the Facility Owner	Grand Total (Skilled + Unskilled)			Unskilled Employment			Skilled Employment		
		Total	Female	% Female	Total	Female	% Female	Total	Female	% Female
<b>I. Prey Veng Province</b>										
	Chhun Thom Rice Mill	275	84	31	230	75	33	45	9	20
<b>II. Kampong Thom Province</b>										
	1688 Rice Mill	285	80	28	240	70	29	45	10	22
	Lim Heng Leap Rice Mill	178	61	34	160	55	34	18	6	33
<b>Sub-total Kampong Thom</b>		<b>463</b>	<b>141</b>	<b>30</b>	<b>400</b>	<b>125</b>	<b>31</b>	<b>63</b>	<b>16</b>	<b>25</b>
<b>III. Battambang Province</b>										
	Phou Poy Rice Mill	290	74	26	240	65	27	50	9	18
	City Rice Mill	360	160	44	240	100	42	120	60	50
<b>Sub-total Battambang</b>		<b>650</b>	<b>234</b>	<b>36</b>	<b>480</b>	<b>165</b>	<b>34</b>	<b>170</b>	<b>69</b>	<b>41</b>
<b>Total</b>		<b>1,388</b>	<b>459</b>	<b>33</b>	<b>1,110</b>	<b>365</b>	<b>33</b>	<b>278</b>	<b>94</b>	<b>34</b>

Target Unskilled employment      30%  
Achievement                      33%  
% Change                              110

**15D. ADMINISTRATIVE STAFF FOR PDSF - OPERATION PHASE**

Provinces	Name of the Facility Owner	Administrative Staff		
		Total	Female	% Female
<b>I. Prey Veng Province</b>				
	Chhun Thom Rice Mill	9	6	67
<b>II. Kampong Thom Province</b>				
	1688 Rice Mill	25	13	52
	Lim Heng Leap Rice Mill	10	5	50
<b>Sub-total Kampong Thom</b>		<b>35</b>	<b>18</b>	<b>51</b>

Provinces	Name of the Facility Owner	Administrative Staff		
		Total	Female	% Female
<b>III. Battambang Province</b>				
	Phou Poy Rice Mill	45	22	49
	City Rice Mill	55	29	53
	<b>Sub-total Battambang</b>	<b>100</b>	<b>51</b>	<b>51</b>
	<b>Total</b>	<b>144</b>	<b>75</b>	<b>52</b>

Target	50%
Achievement	52%
% Change	104

## 16. FWUC CAPACITY BUILDING

At program completion, **44,321 women (52%) out of total 84,659 FWUC members** were trained in group management and irrigation scheme operations and maintenance. The main training topics were: FWUC formation, RGCs' law, Sub-degree No.31, Construction sub-committee (CSC), Statute Sub-committee (SSC), Financial Management/Accounting, Basic Administration, Repairs/Maintenance, Conflict Resolution and meetings were held on FWUC orientation.

In addition, there were meetings and study tours by PIOs (Rice-SDP +AF) with 9,974 participants (F = 3,881, 39%).

## 17. PROVISION OF RICE SEEDERS (Under AF)

<i>Target (22 rice seeders distributed to 19 ACs and 3 govt. seed centers)</i>	= 22
<i>Achievement</i>	= 22
<i>% Achievement</i>	= 100

## 18. PRE-HARVEST AND POST-HARVEST TECHNOLOGY TO 19 ACS (UNDER AF)

All 19 ACs were covered under the pre-harvest (agricultural productivity enhancement) and post-harvest technology training

<i>Target =</i>	19
<i>Achievement =</i>	19
<i>% Achievement =</i>	100

### 19. MARKET FACILITATION ACTIVITIES IN 35 ACS (UNDER AF)

Province	ACs with Market Facilitation Activities Conducted
1. Prey Veng	57
2. Kampong Thom	45
3. Battambang	42
<b>Total</b>	<b>144</b>

Note: ACs-Millers business matching activities.

AF Target	35
Achievement	144
% Achievement	411

### 20A. SIX RICE SEED STORAGE WAREHOUSES (INCLUDING DRYING YARDS) CONSTRUCTED – UNDER AF

Seed Storage Warehouse/ Drying Yards	Province	Target	Physical Achievement %	Date of Hand-over
1. BansaiTreng AC	Battambang	1	100	August 2024
2. MokRea AC	Battambang	1	100	August 2024
3. KdeySannkhemKaksekorKhmer AC	Battambang	1	100	August 2024
4. TraPangReousy AC	Kampong Thom	1	100	August 2024
5. SlaMeancheyKdeysangkhem AC	Kampong Thom	1	100	August 2024
6. ChhamroslosthmeySvayteab	Prey Veng	1	100	August 2024
<b>OVERALL</b>	-----	<b>6</b>	<b>100</b>	

**20B. SIX RICE SEED STORAGE WAREHOUSES (INCLUDING DRYING YARDS) - EMPLOYMENT – Under AF**

Seed Storage Warehouse/ Drying Yards	Province	Grand Total (Skilled + Unskilled)			Unskilled Employment			Skilled Employment		
		Total	Female	% Female	Total	Female	% Female	Total	Female	% Female
1. BansaiTreg AC	Battambang	44	26	59	32	20	63	12	6	50
2. MokRea AC	Battambang	38	29	76	28	25	89	10	4	40
3. KdeySannkhem KaksekorKhmer AC	Battambang	44	24	55	30	16	53	14	8	57
4. TraPangReousy AC	Kampong Thom	45	22	49	33	16	48	12	6	50
5. SlaMeanchey Kdeysangkhem AC	Kampong Thom	44	18	41	28	10	36	16	8	50
6. Chhamroslosthmey Svayteab	Prey Veng	38	24	63	26	18	69	12	6	50
<b>TOTAL DRYING YARDS</b>	-----	<b>253</b>	<b>143</b>	<b>57</b>	<b>177</b>	<b>105</b>	<b>59</b>	<b>76</b>	<b>38</b>	<b>50</b>

**21A. FIVE RICE SEED STORAGE WAREHOUSES (INCLUDING DRYING YARDS) AND ONE FWUC BUILDING CONSTRUCTED – UNDER RICE-SDP (USING SAVINGS)**

Seed Storage Warehouse/ Drying Yards and FWUC Building	Province	Target	Physical Achievement %	Date of Hand- over
<b>A. Seed Storage Warehouse/ Drying Yards</b>				
1. AC Metapheap Preah Srey	Kampong Thom	1	100	14 Dec 2023
2. AC San Kor Meanchey	Kampong Thom	1	100	13 Dec 2023
3. AC Srolao Samki Chouk Chey	Kampong Thom	1	100	11 Dec 2023
4. AC Bopea Senchey	Prey Veng	1	100	18 Dec 2023
5. AC Teuk Chet Kasekor Kear Meanchey	Battambang	1	100	15 Dec 2023
<b>Average Seed Storage Warehouse/ Drying Yards</b>		<b>5</b>	<b>100</b>	-----
<b>B. FWUC Building</b>	Kampong Thom	<b>1</b>	<b>100</b>	<b>20 Dec 2023</b>
<b>OVERALL</b>		<b>6</b>	<b>100</b>	-----

**21B. FIVE RICE SEED STORAGE WAREHOUSES (INCLUDING DRYING YARDS) & ONE FWUC BUILDING- EMPLOYMENT –Under Rice-SDP**

Paddy/Rice Seed Storage and Drying floor and FWUC building	Province	Grand Total (Skilled + Unskilled)			Unskilled Employment			Skilled Employment		
		Total	Female	% Female	Total	Female	% Female	Total	Female	% Female
<b>A. Storage and dring floor</b>										
1. AC Metapheap Preah Srey	Kampong Thom	49	14	29	18	14	78	31	0	0
2. AC San Kor Meanchey	Kampong Thom	48	13	27	19	13	68	29	0	0
3. AC Srolao Samki Chouk Chey	Kampong Thom	62	26	42	20	18	90	42	8	19
4. AC Bopea Senchey	Prey Veng	61	12	20	21	9	43	40	3	8
5. AC Teuk Chet Kasekor Kear Meanchey	Battambang	73	24	33	21	12	57	52	12	23
<b>SUB-TOTAL storage and DRYING floors</b>		<b>293</b>	<b>89</b>	<b>30</b>	<b>99</b>	<b>66</b>	<b>67</b>	<b>194</b>	<b>23</b>	<b>12</b>
<b>B. Chhouk Ksach Farmer Water User Community</b>	<b>Kampong Thom</b>	<b>70</b>	<b>17</b>	<b>24</b>	<b>27</b>	<b>17</b>	<b>63</b>	<b>43</b>	<b>0</b>	<b>0</b>
<b>GRAND TOTAL</b>		<b>363</b>	<b>106</b>	<b>29</b>	<b>126</b>	<b>83</b>	<b>66</b>	<b>237</b>	<b>23</b>	<b>10</b>

**22. SIX (6) PADDY AND SEED PROCESSING FACILITIES (GRADING, DYING AND STORAGE) INSTALLED- UNDER RICE-SDP**

Provinces	Total Target	By 2022			% Achievement to Project Target
		PDSF (grading, dying and storage) installed	SPSF (grading, dying and storage) installed	Total Facilities (grading, dying and storage) installed	
1. Prey Veng	2	1	1	2	100
2. Kampong Thom	2	2	0	2	100
3. Battambang	2	2	1	3	150
<b>TOTAL</b>	<b>6</b>	<b>5</b>	<b>2</b>	<b>7</b>	<b>117</b>

**23. CONTRACTORS TRAINED IN LLL - UNDER RICE-SDP**

Province	LLL Contractors Trained		
	Total	Female	% Female
1. Battambang	43	3	7
2. Kampong Thom	33	2	6
3. Prey Veng	36	2	6
<b>Total</b>	<b>112</b>	<b>7</b>	<b>6</b>

Note: total number of contractors that participated in 3 training courses along with field demonstrations.

Province	LLL Contractors Trained		
	Total	Female	% Female
1. Battambang	20	3	15
2. Kampong Thom	10	2	20
3. Prey Veng	11	2	18
<b>Total</b>	<b>41</b>	<b>7</b>	<b>17</b>

Note: Number of contractors that participated in all 3 training courses with field demonstrations.

#### 24. PRIVATE CONTRACTORS ENGAGED TO OFFER LLL SERVICES – UNDER RICE-SDP

No.	Province Name	Rice-SDP Project			Voluntary			Rice-SDP + Voluntary			Number of contracts		
		No. of contractor	Female contractor	% female contractor	No. of contractor	Female contractor	% female contractor	No. of contractor	Female contractors	% female contractors	Rice-SDP	Voluntary	Total
1	Prey Veng	2	1	50	2	1	50	4	2	50	7	2	9
2	Kampong Thom	1	0	0	2	1	50	3	1	33	4	3	7
3	Battambang	3	1	33	2	0	0	5	1	20	6	2	8
<b>TOTAL</b>		<b>6</b>	<b>2</b>	<b>33</b>	<b>6</b>	<b>2</b>	<b>33</b>	<b>12</b>	<b>4</b>	<b>33</b>	<b>17</b>	<b>7</b>	<b>24</b>

*Target: At least nine private contractors in three project provinces engaged and trained to offer land leveling services*

Achievement = 12 private contractors (133%)

*Target: Twenty private contractors, including 5 led by female entrepreneurs, replicated offering land leveling services at their own initiatives in three participating provinces*

Target = 21 private contractors

Achievement = 24 contractors (120%) (at completion of the program)

Female Target = 5

Achievement = 7 (140%)

**25. INCREASED LEVERAGE FACTOR OF PPCR FUNDING, REFLECTED BY AN ESTIMATED \$5 MILLION FROM PRIVATE SECTOR MILLS – UNDER RICE-SDP**

**New capital investment of each rice miller after installment of PDS Facilities**

No	Name of Rice Miller	Province	New capital investment		
			Item	Amount	
1	1688 Rice Mill	Kampong Thom	1. Rice polish machine (set)	<b>\$1,000,000</b>	
			2. new warehouse		
			3. storage facility (cylo)		
			<b>Sub-total</b>	<b>\$1,000,000</b>	
2	Lim Heng Leap Rice Mill	Kampong Thom	1. Folklift: 02 sets	\$120,000	
			2. Electricity connection	\$100,000	
			3. Warehouse	\$1,010,000	
			4. Hush-warehouse	\$70,000	
			5. Rice Mill Machine (Rice Mill, Color and polish..)	\$1,200,000	
			<b>Sub-total</b>	<b>\$2,500,000</b>	
3	Chhun Thom Rice Mill	Prey Veng	1. Rice polish machine (set)	\$650,000	
			2. Expand warehouse		
			3. Sasor		
			<b>Sub-total</b>	<b>\$650,000</b>	
4	City Rice Mill	Battambang	1. warehouse for rice storage	\$1,900,000	
			2. new dryer (160 tons x 2sets)		
			3. Warehouse for paddy		
			4. New Dryer		\$1,500,000
			5. new storage building (120mx30m)		\$500,000
			6. 3 hectares land size		\$400,000
			<b>Sub-total</b>	<b>\$4,300,000</b>	
5	Phou Poy Rice Mill	Battambang	1. Rice mill machine	\$4,800,000	
			2. weight scale		
			3. Warehouse		
			4. cylo for rice storage		
			5. office building		\$50,000

No	Name of Rice Miller	Province	New capital investment	
			Item	Amount
			6. Expand business land size	\$65,000
			<b>Sub-total</b>	<b>\$4,915,000</b>
			<b>GRAND TOTAL</b>	<b>\$13,365,000</b>

Target: US\$ 5 million  
Achievement: US\$ 13.37 million  
% Achievement: 267%

## 26. GAP INDICATORS RELATED TO THE AC COMMITTEE MEMBERS TRAINING ON SELECTED TOPICS

*These indicators are only under AF and related to GAP.*

At least 40 percent of AC committee members (50% of whom are female) are trained in business plan development, report writing, general concepts of financial management, GBV awareness

At least 40% of AC committee members receive training on access to finance and reducing financing cost (out of 40% AC member, 50% are female)

Of the AC committee members that participate in paddy market facilitation activities and seed business forum, 50% are women.

### Overall - Training Activities for the AC Committee Members - GAP Indicator

Province	Number of ACs Covered as of Date	Total AC Committee Members (AC Board Members trained + Not trained)			AC Committee Members trained in Business plan development and report writing			
		Total	Female	% Female	Total	Female	% Female	% of Total Committee Members Trained
<b>1. Prey Veng</b>	57	482	221	46	208	103	50	43
<b>2. Kampong Thom</b>	45	483	301	62	481	297	62	100
<b>3. Battambang</b>	42	253	102	40	152	52	34	60
<b>TOTAL</b>	<b>144</b>	<b>1,218</b>	<b>624</b>	<b>51</b>	<b>841</b>	<b>452</b>	<b>54</b>	<b>69</b>

Province	Number of ACs Covered as of Date	Total AC Committee Members (AC Board Members trained + Not trained)			AC Committee Members trained in Business plan development and report writing			
		Total	Female	% Female	Total	Female	% Female	% of Total Committee Members Trained
% AC Committee Members Trained Achievement (40% Target)	-----	-----	-----	-----	-----	-----	-----	173
% Female Achievement (50% Target)	-----	-----	-----	102	-----	-----	107	-----

**Overall - Training Activities for the AC Committee Members - GAP Indicator (Continued)**

Province	AC Committee Members trained in Financial Management, Access to Finance, and Reduction in Financing Cost				AC Committee Members trained in Gender based Violence (GBV)			
	Total	Female	% Female	% of Total Committee Members Trained	Total	Female	% Female	% of Total Committee Members Trained
1. Prey Veng	439	198	45	91	166	96	58	34
2. Kampong Thom	460	292	63	95	481	297	62	100
3. Battambang	218	94	43	86	152	52	34	60
<b>TOTAL</b>	<b>1,117</b>	<b>584</b>	<b>52</b>	<b>92</b>	<b>799</b>	<b>445</b>	<b>56</b>	<b>66</b>
% AC Committee Members Trained Achievement (40% Target)	-----	-----	-----	229	-----	-----	-----	165
% Female Achievement (50% Target)	-----	-----	105	-----	-----	-----	112	-----

**Overall - Training Activities for the AC Committee Members - GAP Indicator (Continued)**

Province	AC Committee Members Participating in Paddy Market Facilitation Activities and Seed Business Forum				TOTAL TRAINED IN ALL THE TOPICS			
	Total	Female	% Female	% of Total Committee Members Trained	Total	Female	% Female	Overall % of Total Committee Members Trained (weighted by total trained)
1. Prey Veng	40	20	50	8	938	466	50	
2. Kampong Thom	481	297	62	100	1,903	1,183	62	
3. Battambang	182	97	53	72	552	243	44	
<b>TOTAL</b>	<b>703</b>	<b>414</b>	<b>59</b>	<b>58</b>	<b>3,393</b>	<b>1,892</b>	<b>56</b>	<b>72</b>
% AC Committee Members Trained Achievement (40% Target)	-----	-----	-----	<b>144</b>			-----	<b>181</b>
% Female Achievement (50% Target)	-----	-----	<b>118</b>	-----			<b>112</b>	

*GAP Targets: 1. At least 40 percent of AC committee members, 50% of whom are female, are trained in (1) business plan development, (2) report writing, general concepts of financial management, (3) GBV awareness, (4) access to finance and reducing financing cost, and (5) paddy market facilitation and seed business forum.*

(i) Achievement against at-least 40% of the AC Committee Members trained:

- (1) Business plan development/report writing = 69% (173% achievement)
- (2) General concepts of financial management, Access to finance and reducing financing cost = 92% (229% achievement)
- (3) GBV awareness = 66% (165% achievement)
- (4) Paddy market facilitation and seed business forum = 58% (144% achievement)

OVERALL WEIGHTED AVERAGE = 72% (181% achievement)

(ii) Achievement against 50% female among trained AC Committee Members:

- (1) Business plan development/report writing = 54% (107% achievement)

(2) General concepts of financial management, access to finance and reducing financing cost	= 52% (105% achievement)
(3) GBV awareness	= 56% (112% achievement)
(4) Paddy market facilitation and seed business forum	= 59% (118% achievement)
OVERALL	= 56% (112% achievement)

## 27. TOTAL EMPLOYMENT

By Sources	Total Labor Employment			Unskilled Labor Employment			Skilled Labor Employment		
	Total	Female	% female	Total	Female	% female	Total	Female	% female
<b>A. Original Project (RICE-SDP)</b>									
<b>1. Irrigation rehabilitation (MOWRAM)</b>	<b>10,475</b>	<b>3,360</b>	<b>32</b>	<b>8,057</b>	<b>3,259</b>	<b>40</b>	<b>2,418</b>	<b>101</b>	<b>4</b>
<b>2. Seed Processing and Storage Facility (MAFF NIO)</b>									
- Civil works	783	181	23	563	181	32	220	0	0
- Facilities and Operations (including Admin Staff)	113	53	47	61	27	44	52	26	50
<b>Sub-total Seed Processing and Storage Facility</b>	<b>896</b>	<b>234</b>	<b>26</b>	<b>624</b>	<b>208</b>	<b>33</b>	<b>272</b>	<b>26</b>	<b>10</b>
<b>3 Paddy Storage and Drying Facility (PMO)</b>									
- Civil works	1,463	414	28	854	361	42	609	53	9
- Facilities and Operations (including Admin Staff)	1,532	534	35	1,110	365	33	422	169	40
<b>Sub-total Paddy Drying and Storage Facility</b>	<b>2,995</b>	<b>948</b>	<b>32</b>	<b>1,964</b>	<b>726</b>	<b>37</b>	<b>1,031</b>	<b>222</b>	<b>22</b>
<b>4. Seed production</b>	<b>20,832</b>	<b>13,884</b>	<b>67</b>	<b>7,803</b>	<b>5,665</b>	<b>73</b>	<b>13,029</b>	<b>8,219</b>	<b>63</b>
<b>5. Paddy Storage and Drying Floor/Yards for ACs + FWUC Building (PMO)</b>	<b>363</b>	<b>106</b>	<b>29</b>	<b>126</b>	<b>83</b>	<b>66</b>	<b>237</b>	<b>23</b>	<b>10</b>
<b>6. Laser Land Levelling</b>	<b>269</b>	<b>44</b>	<b>16</b>	<b>145</b>	<b>38</b>	<b>26</b>	<b>124</b>	<b>6</b>	<b>5</b>
<b>Total Original Project (Rice-SDP)</b>	<b>35,830</b>	<b>18,576</b>	<b>52</b>	<b>18,719</b>	<b>9,979</b>	<b>53</b>	<b>17,111</b>	<b>8,597</b>	<b>50</b>
<b>B. Additional Financing</b>									
<b>1. Seed Storage Warehouse for ACs (MAFF NIO)</b>	<b>253</b>	<b>143</b>	<b>57</b>	<b>177</b>	<b>105</b>	<b>59</b>	<b>76</b>	<b>38</b>	<b>50</b>
<b>2. Quality Seed Production</b>	<b>2,411</b>	<b>1,604</b>	<b>67</b>	<b>930</b>	<b>556</b>	<b>60</b>	<b>1,481</b>	<b>1,048</b>	<b>71</b>
<b>Total Additional Financing</b>	<b>2,664</b>	<b>1,747</b>	<b>66</b>	<b>1,107</b>	<b>661</b>	<b>60</b>	<b>1,557</b>	<b>1,086</b>	<b>70</b>
<b>Grand Total (Rice-SDP + AF)</b>	<b>38,494</b>	<b>20,323</b>	<b>53</b>	<b>19,826</b>	<b>10,640</b>	<b>54</b>	<b>18,668</b>	<b>9,683</b>	<b>52</b>

Note: Admin staff is only Skilled.

By Sources	Total Labor Employment			Unskilled Labor Employment			Skilled Labor Employment		
	Total	Female	% female	Total	Female	% female	Total	Female	% female
<b>Total Seed Production Employment - RICE-SDP + AF</b>	<b>23,243</b>	<b>15,488</b>	<b>67</b>	<b>8,733</b>	<b>6,221</b>	<b>71</b>	<b>14,510</b>	<b>9,267</b>	<b>64</b>

## 28. TOTAL CAPACITY BUILDING -BY EA/IAs

By Organization	Total					% by Number of Programs	% by Number of Days
	No. of programs	No. of days	Total Participants	Female	% Female		
<b>A. Original Project (Rice-SDP)</b>							
1. MAFF	1,341	5,412	35,895	14,603	41	21	43
2. PIOs including WICI activities	4,112	6,169	232,827	127,429	55	64	49
3. PMO Capacity Building	177	149	7,664	1,916	25	3	1
4. PMO (WICI Firm)	172	141	4,286	2,035	47	3	1
5. MOWRAM	108	162	3,359	449	13	2	1
6. MLMUPC	512	437	14,775	7,587	51	8	4
<b>Total - Original Project (RICE-SDP)</b>	<b>6,422</b>	<b>12,470</b>	<b>298,806</b>	<b>154,019</b>	<b>52</b>	<b>100</b>	<b>100</b>
<b>B. Additional Financing</b>							
1. MAFF	46	100	2,227	837	38	3	7
2. PIOs	1,757	1,419	71,667	38,489	54	97	93
3. PMO Capacity Building	3	3.0	476	67	14	0	0
4. PMO (WICI Firm)	0	0	0	0	0	0	0
<b>Total - Additional Financing</b>	<b>1,806</b>	<b>1,522</b>	<b>74,370</b>	<b>39,393</b>	<b>53</b>	<b>100</b>	<b>100</b>
<b>C. Original Project + Additional Financing</b>							
1. MAFF	1,387	5,512	38,122	15,440	41	17	39
2. PIOs including WICI activities	5,869	7,588	304,494	165,918	54	71	54
3. PMO Capacity Building	180	152	8,140	1,983	24	2	1
4. PMO (WICI Firm)	172	141	4,286	2,035	47	2	1
5. MOWRAM	108	162	3,359	449	13	1	1

6. MLMUPC	512	437	14,775	7,587	51	6	3
<b>Grand Total (Rice-SDP +AF)</b>	<b>8,228</b>	<b>13,992</b>	<b>373,176</b>	<b>193,412</b>	<b>52</b>	<b>100</b>	<b>100</b>

### CAPACITY BUILDING BY TYPE (Rice-SDP + AF)

Organization	Farmers + Community Members			Officials			Private Sector + Others			GRAND TOTAL		
	Total	Female	% <i>Female</i>	Total	Female	% <i>Female</i>	Total	Female	% <i>Female</i>	Total	Female	% <i>Female</i>
<b>A. Original Project (Rice-SDP)</b>												
1. MAFF	28,729	13,020	45	6,385	1,338	21	781	245	31	35,895	14,603	41
2. PIOs including WICI activities	231,067	126,873	55	20	0	0	1,740	556	32	232,827	127,429	23
3. PMO Capacity Building	839	310	0	6,825	1,606	23	0	0	0	7,664	1,916	55
4. PMO (WICI Firm)	2,883	1,550	54	1,105	436	39	298	49	16	4,286	2,035	54
5. MOWRAM	2,396	192	8	963	257	27	0	0	0	3,359	449	13
6. MLMUPC	14,046	7,527	54	729	60	8	0	0	0	14,775	7,587	51
<b>Total - Original Project (Rice-SDP)</b>	<b>279,960</b>	<b>149,472</b>	<b>53</b>	<b>16,027</b>	<b>3,697</b>	<b>23</b>	<b>2,819</b>	<b>850</b>	<b>30</b>	<b>298,806</b>	<b>154,019</b>	<b>52</b>
<b>B. Additional Financing</b>												
1. MAFF	1,269	485	38	655	225	34	303	127	42	2,227	837	38
2. PIOs	70,891	38,207	54	201	40	20	575	242	42	71,667	38,489	54
3. PMO Capacity Building	0	0	0	476	67	14	0	0	0	476	67	14
4. PMO (WICI Firm)	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total - Additional Financing</b>	<b>72,160</b>	<b>38,692</b>	<b>54</b>	<b>1,332</b>	<b>332</b>	<b>25</b>	<b>878</b>	<b>369</b>	<b>42</b>	<b>74,370</b>	<b>39,393</b>	<b>53</b>
<b>C. Original Project + Additional Financing</b>												
1. MAFF	29,998	13,505	45	7,040	1,563	22	1,084	372	34	38,122	15,440	41
2. PIOs including WICI activities	301,958	165,080	55	221	40	18	2,315	798	34	304,494	165,918	54
3. PMO Capacity Building	839	310	37	7,301	1,673	23	0	0	0	8,140	1,983	24

<b>4. PMO (WICI Firm)</b>	2,883	1,550	54	1,105	436	39	298	49	16	4,286	2,035	47
<b>5. MOWRAM</b>	2,396	192	8	963	257	27	0	0	0	3,359	449	13
<b>6. MLMUPC</b>	14,046	7,527	54	729	60	8	0	0	0	14,775	7,587	51
<b>Grand Total (Rice-SDP+ AF)</b>	<b>352,120</b>	<b>188,164</b>	<b>53</b>	<b>17,359</b>	<b>4,029</b>	<b>23</b>	<b>3,697</b>	<b>1,219</b>	<b>33</b>	<b>373,176</b>	<b>193,412</b>	<b>52</b>
<b>% BY PARTICIPANTS</b>	<b>94</b>	<b>-----</b>	<b>-----</b>	<b>5</b>	<b>-----</b>	<b>-----</b>	<b>1</b>	<b>-----</b>	<b>-----</b>	<b>100</b>	<b>-----</b>	<b>-----</b>

29. Breakdown of capacity building details of two significant contributing sources (MAFF and PIOs) are given below:

**29A. CAPACITY BUILDING DETAILS- MAFF Component only**

**Rice-SDP**

Type	Number	No. of days	Total Persons Attended	Female Persons Attended	% Female
<b>1. Workshops</b>	<b>41</b>	<b>66</b>	<b>2,686</b>	<b>541</b>	<b>20</b>
<b>2. Training</b>	<b>309</b>	<b>3,758</b>	<b>17,582</b>	<b>8,450</b>	<b>48</b>
<b>3. Study Tour/Exchange Visits</b>					
- Foreign	3	17	89	8	9
- Local	5	14	198	55	28
<b>Sub-total - Study Tour/Exchange Visits</b>	<b>8</b>	<b>31</b>	<b>287</b>	<b>63</b>	<b>22</b>
<b>Total - Workshop, Training, and Study Tours/Exchange Visits</b>	<b>358</b>	<b>3,855</b>	<b>20,555</b>	<b>9,054</b>	<b>44</b>
<b>4a. Meetings (excluding CAEA)</b>	149	131	2,153	352	16
<b>4b. Meeting on CAEA only</b>	834	1,426	13,187	5,197	39
<b>Total Meetings</b>	<b>983</b>	<b>1,557</b>	<b>15,340</b>	<b>5,549</b>	<b>36</b>
<b>Grand Total (Rice-SDP)</b>	<b>1,341</b>	<b>5,412</b>	<b>35,895</b>	<b>14,603</b>	<b>41</b>

**Additional Financing**

Type	Number	No. of days	Total Persons Attended	Female Persons Attended	% Female
<b>1. Workshops</b>	12	30	763	257	34

Type	Number	No. of days	Total Persons Attended	Female Persons Attended	% Female
2. Training	22	58	1,356	552	41
<b>Sub-total</b>	<b>34</b>	<b>88</b>	<b>2,119</b>	<b>809</b>	<b>38</b>
3. Meetings	12	12	108	28	26
<b>Grand Total (AF)</b>	<b>46</b>	<b>100</b>	<b>2,227</b>	<b>837</b>	<b>38</b>

### CAPACITY BUILDING DETAILS- MAFF Component – BY TOPICS

#### 1. Workshop- Rice-SDP (MAFF only)

Topics	No. of Programs	No. of days	Total Persons Attended	Female Persons Attended	% Female
1. Seed Production	3	6	186	48	26
2. Rice ecosystem mapping	15	20	1,067	244	23
3. Soil classification mapping	3	6	186	20	11
4. Post-harvest Technology	1	1	86	12	14
5. Gender	3	3	185	54	29
6. Land Leveling	1	1	57	7	12
7. Drying & Storage	1	1	66	6	9
8. Sanitary and phytosanitary (SPS) measure awareness	3	6	120	24	20
9. Financial access to rice production	3	3	190	16	8
10. Rice Miller related including selection	3	9	133	12	9
11. EMP, CEMP, and GRM	2	4	251	57	23
12. Seed law and regulations	3	6	159	41	26
<b>Total</b>	<b>41</b>	<b>66</b>	<b>2,686</b>	<b>541</b>	<b>20</b>

**2. Training- Rice-SDP (MAFF only)**

<b>Topics</b>	<b>No. of Training Programs</b>	<b>No. of days</b>	<b>Total Persons Attended</b>	<b>Female Persons Attended</b>	<b>% Female</b>
<b>1. Commune Agro-Ecosystem Analysis (TOTs)</b>	7	51	267	59	22
<b>2. Seed Production</b>	73	3,093	7,498	3,889	52
<b>3. Farming System (Agriculture productivity)</b>	5	14	147	36	24
<b>4. GIS</b>	7	23	212	29	14
<b>5. Soil classification mapping</b>	3	15	81	16	20
<b>6. Post-harvest Technology</b>	89	190	2,809	1,515	54
<b>7. Agri Machinery</b>	2	10	40	8	20
<b>8. Gender</b>	10	28	357	167	47
<b>9. Land Leveling</b>	10	43	246	7	3
<b>10. M&amp;E</b>	5	11	163	42	26
<b>11. Rice quality inspection</b>	11	39	409	147	36
<b>12. Rice Milling Technology</b>	3	9	93	10	11
<b>13. Sustainable Rice Production</b>	4	52	1,530	771	50
<b>14. Environment and Climate Change</b>	55	89	2,222	1,115	50
<b>15. Farming MIS</b>	9	27	259	73	28
<b>16. Market Principles and Financial Management</b>	16	64	1,249	566	45
<b>TOTAL</b>	<b>309</b>	<b>3,758</b>	<b>17,582</b>	<b>8,450</b>	<b>48</b>

**3. Workshop– Additional Financing (MAFF only)**

<b>Topics</b>	<b>No. of Workshops</b>	<b>No. of days</b>	<b>Total Persons Attended</b>	<b>Female Persons Attended</b>	<b>% Female</b>
<b>1. Training on raising awareness on seed law &amp; regulations</b>	6	18	432	129	30
<b>2. EMP, CEMP, and GRM</b>	6	12	331	128	39

Topics	No. of Workshops	No. of days	Total Persons Attended	Female Persons Attended	% Female
<b>Total</b>	<b>12</b>	<b>30</b>	<b>763</b>	<b>257</b>	<b>34</b>

#### 4. Training– Additional Financing (MAFF only)

Topics	No. of Training Programs	No. of days	Total Persons Attended	Female Persons Attended	% Female
1. Training on seed inspection for inspectors	6	18	442	192	43
2. Training on seed certification scheme	5	21	358	162	45
3. Field demonstration and field day on paddy production	3	3	265	140	53
4. Training on agricultural machinery utilization	2	10	48	2	4
5. Post-harvest technology	6	6	243	56	23
<b>TOTAL</b>	<b>22</b>	<b>58</b>	<b>1,356</b>	<b>552</b>	<b>41</b>

#### 29B. CAPACITY BUILDING DETAILS- PIOs only

##### CAPACITY BUILDING BY PIOs UNDER Rice-SDP

Type	No. of Programs	Days	Total Participants	Female	% Female
1. Capacity Building of ACs	166	553	7,851	2,582	33
2. Agricultural Extension	2,957	2,456	90,007	52,847	59
3. Market Facilitation	37	60	1,422	367	26
4. Land Leveling	483	1,513	79,627	40,533	51
5. FWUC	36	362	7,664	3,042	40
6. WICI Sensitization	433	1,225	46,256	28,058	61
<b>TOTAL</b>	<b>4,112</b>	<b>6,169</b>	<b>232,827</b>	<b>127,429</b>	<b>55</b>

**% PROGRAMS AND DAYS BY PROVINCES (Under Rice-SDP)**

Province	Number of Programs	% by Programs	Number of Days	% by Days
1. Prey Veng	1,276	31	1,955	32
2. Kampong Thom	1,834	45	2,459	40
3. Battambang	1,002	24	1,755	28
<b>TOTAL</b>	<b>4,112</b>	<b>100</b>	<b>6,169</b>	<b>100</b>

**CAPACITY BUILDING BY PIOs UNDER AF**

Activities	No. of programs	No. of days	Total Participants	Female	% Female
<b>I. Associated Initiatives</b>					
1. Land Leveling	180	180	8,677	4,001	46
2. Soil Nutrient Management	503	353	19,066	10,654	56
3. Sustainable Rice Production	500	370	19,603	10,906	56
4. Improved Paddy Agronomic Practices)	22	59	2,267	842	37
5. Post-harvest Technology	320	190	12,094	7,148	59
<b>Sub-Total - Associated Initiatives</b>	<b>1,525</b>	<b>1,152</b>	<b>61,707</b>	<b>33,551</b>	<b>54</b>
<b>II. OTHERS</b>					
1. Market Facilitation	49	54	3,584	1,665	46
2. FM, Access to Finance, and Reduced Cost of Financing	74	110	2,527	1,195	47
3. Business Plan Development and Report Writing	63	68	2,782	1,522	55
4. Gender Based Violence	44	29	905	532	59
5. FWUC	2	6	162	24	15
<b>Sub-Total - OTHERS</b>	<b>232</b>	<b>268</b>	<b>9,960</b>	<b>4,938</b>	<b>50</b>
<b>Total (Associated Initiatives + OTHERS)</b>	<b>1,757</b>	<b>1,419</b>	<b>71,667</b>	<b>38,489</b>	<b>54</b>

**% PROGRAMS AND DAYS BY PROVINCES (Under AF)**

Province	Number of Programs	% by Programs	Number of Days	% by Days
1. Prey Veng	301	17	403	28

<b>2. Kampong Thom</b>	1,125	64	615	43
<b>3. Battambang</b>	331	19	401	28
<b>TOTAL</b>	<b>1,757</b>	<b>100</b>	<b>1,419</b>	<b>100</b>

### 30. MARKET FACILITATION

#### ACs with Market Facilitation (Under AF)

Province	ACs with Market Facilitation Activities Conducted
<b>1. Prey Veng</b>	57
<b>2. Kampong Thom</b>	45
<b>3. Battambang</b>	42
<b>Total</b>	<b>144</b>

Note: ACs-Millers business matching activities.

AF Target	35
Achievement	144
% Achievement	411

#### PROGRAMS AND PARTICIPANTS (MARKET FACILITATION)

Category	ACs Covered	Districts Covered	No. of Programs	No. of days	GRAND TOTAL PARTICIPANTS	FEMALE PARTICIPANTS	% Female
<b>1. Rice-SDP</b>	57	21	37	60	1,422	367	26
<b>2. AF</b>	144	71	49	54	3,584	1,665	46
<b>Total</b>	<b>144</b>	<b>92</b>	<b>86</b>	<b>114</b>	<b>5,006</b>	<b>2,032</b>	<b>41</b>

**MARKET FACILITATION DETAILS BY TYPE OF PARTICIPANTS – RICE-SDP**

Category	Total Farmer Attended	Female Farmer	% Female Farmer	Rice Miller/Trader	Female Rice Miller/Trader	% Female Rice Miller/Trader	Govt.	Female Govt.	% Female Govt.	Business Sector	Female Business	% Female Business	Others	Female	% Female	Grand Total	Female	% Female
Total	1,140	276	24%	32	6	19%	185	71	38%	19	4	21%	46	10	22%	1,422	367	26%

**MARKET FACILITATION DETAILS BY TYPE OF PARTICIPANTS – ADDITIONAL FINANCING**

Category	Total farmers	Female farmers	% Female	Total Govt official	Female Govt official	% Female	Total Rice Millers	Female Rice Millers	% Female	Total Input Suppliers	Female Input Suppliers	% Female	Grand Total	Female Total	% Female
Total	2,457	1,307	53	191	32	17	67	13	19	869	313	36	3,584	1,665	46

**NOTE:** AC=Agriculture Cooperative; ARDB= Agricultural and Rural Development Bank; CAEA=commune agro-ecosystem analysis; CARDI=Cambodian Agricultural Research and Development Institute; CLUP=commune land use plan; FFS=farmers field school; FGD=focus group discussion; FWUC=farmer water users community, GAP=gender action plan; GBV=gender based violence; GDA=General Directorate of Agriculture; GFP=gender focal person; HH=household; ISSs=implementation support specialists; M &E=monitoring and evaluation; MAFF=Ministry of Agriculture, Forestry and Fisheries; MEF=Ministry of Economy and Finance; MFI=micro-finance institution; MIH= Ministry of Industry and Handicrafts; MLMUPC=Ministry of Land Management, Urban Planning and Construction; MOWRAM=Ministry of Water Resources and Meteorology; NIO=National Implementation Office; PDA=Provincial Department of Agriculture; PDS=paddy drying and storage; PIC=project implementation consultants; PIO=provincial implementation office, PMO=Program Management Office; PWDRAM= Provincial Department of Water and Resources and Meteorology; RMCD=Rice Millers Capacity Development; SPS=seed processing and storage; TIP= Technical Information Package; ToT=training of trainers; WICI= weather-indexed crop insurance.

## Appendix 4 - Summary of Project Endline Impact Assessment (Counterfactual Study by an Independent Firm)

### 1. Introduction.

1. The evaluation highlights the critical role of Cambodia's rice sub-sector, contributing significantly to national agriculture output and GDP. Paddy farming supports millions of jobs and is vital for food security. Challenges such as climate change, infrastructure issues, and the effects of COVID-19 prompted the Asian Development Bank (ADB) to initiate the Climate Resilient Rice Commercialization Sector Development Program (Rice-SDP). The program aims to commercialize rice farming, enhance food security, and boost exports through strategies addressing climate change risks, improving productivity, and removing legal constraints. Additional Financing (AF) was introduced to address COVID-19 pandemic-related disruptions. The endline assessment focuses on measuring outcomes and impacts, assessing changes in farmer production, seed supply sustainability, and the project's effects on vulnerability and food security.

2. The methodology involves various data collection methods, including focus group discussions, household interviews, and key informant interviews. Structured questionnaires cover demographics, education, climate change exposure, agricultural practices, and food insecurity. The methodology employs statistical analyses such as Propensity Score Matching, Difference-in-Difference Method, and others to evaluate program impacts on areas like post-harvest losses, land leveling technology adoption, gender mainstreaming, crop insurance, and sustainability. The assessment focuses on contributions from paddy and seed processing infrastructure, land leveling technologies, seed producers, combined harvesters, and irrigation structures to overall program impact.

### 2. Findings.

3. **Program Outputs. Output 1: Conducive Legal and Regulatory Environment.** The program successfully achieved its targets in creating a favorable legal and regulatory environment, meeting 100% of its goals. By 2019, it developed and implemented 3 critical legal documents addressing climate change risks, including the Law on Management and Use of Agricultural Land (completed in 2017), a framework for land-use zones (completed in 2019), and a National Action Program (completed in 2018) against land degradation. Five (5) legal and regulatory frameworks were established by 2022 to promote rice commercialization, including quality seed production and trade facilitation, with all targets met. The program also achieved full compliance with policy conditions for local seed production, sustainable land management, and trade standards for milled rice. Additionally, food security aspects were integrated into the Rice Policy, and the national action program for land degradation was completed, leading to the successful closure of the policy-based loan. Last Policy action achieved was Law on Plant Protection and Quarantine on 3 May 2022 which is linked to trade facilitation.

4. **Output 2: Agricultural Land-Use Zoning Improved.** Under Output 2 of the Rice-SDP, significant achievements were realized. Commune Agro-ecosystem Analysis (CAEA) was successfully completed for 90 rice-growing communes, meeting 100% of the target. These CAEAs were integrated into Commune Land Use Plans (CLUPs), with all 90 communes adopting Hotspot Maps and completing their CLUPs by 2021. The program consulted 90 farmer groups,

exceeding the target with 56% female representation. Additionally, 16 (3 provincial and 13 districts) Rice Ecosystem maps, Soil Classification maps and Land Use maps were finalized and disseminated by MAFF/NIO. A Joint Working Group with 808 representatives, including 16% female participation, was established to develop a framework for agricultural land-use zoning as a climate adaptation strategy, fully meeting its targets.

5. **Output 3: Climate-Resilient Rice Value Chain Infrastructure Developed.** Rice-SDP has completed developing climate-resilient rice value chain infrastructure. The project surpassed its goals by expanding paddy land with modern production technology by 178,730 hectares (596% of the target) and fully meeting its target for climate-resilient irrigation structures, improving irrigation access for 18,586 hectares (100%) of the target area. Gender inclusivity targets were exceeded with 55% female representation in construction subcommittees and 40.4% female participation in rehabilitation efforts. The project rehabilitated 9 irrigation sub-projects, engaged 7 local engineering firms, and benefited 82 villages and 20,510 households. It also constructed 7 paddy and seed processing facilities, provided extensive support to millers, and conducted training programs to enhance farmers' skills in land preparation, water management, and fertilizer use, with notable success in adopting land leveling technology and promoting gender inclusivity.

6. **Output 4: Rice Value Chain Support Services Enhanced to Improve Quality of Cambodian Rice.** Rice-SDP exceeded the goal of producing quality rice seeds annually. It exceeded seed production targets by producing 2,493 tons of fragrant rice seeds (602 tons certified seeds and around 9,139 tons certified rice seed utilizing 171 tons of registered rice seed) achieving 104% of the target. In addition, Rice-SDP AF produced and distributed 1800 tons of certified seeds. Based on the survey, 71.3% of farmers adopting commercial seeds exceeding the target of 70% adopters or an achievement of 102%, the beneficiaries include female-headed households. Key achievements include rehabilitating seed testing facilities inside the National Agriculture Laboratory (NAL) for quality assurance and expanding technical extension services through training and workshops. The program also engaged 144 agricultural cooperatives, surpassing its market facilitation target. However, high regional demand led to reliance on imports from Vietnam, highlighting challenges such as higher costs of locally produced seeds, supply availability and ready market.

7. **Output 5: Feasibility Study and Design and Pilot Testing of WICI.** Output 5 successfully introduced the Weather-Indexed Crop Insurance (WICI) scheme to mitigate weather-related risks. The feasibility study, detailed design, and pilot testing were completed from 2021 to 2024, with WICI policy sales completing by June 30, 2024. The initiative has reached 133,198 farmers, including 53% women, and demonstrated effectiveness in compensating for climatic shocks, thus building trust among farmers despite initial skepticism. Piloted in 3 provinces, the project evaluated the marketability and potential upscaling, attracting new investors like Blue Orchard and KfW. The WICI covers a \$100 insurance payout for a \$10 premium, and the project's success is promising, with ongoing dissemination efforts by the PMO, FORTE, and the Provincial Governor's office. The program achieved 100% of its target for introducing the WICI scheme.

8. **Output 6: Efficient Program Management and Implementation.** Rice-SDP has made progress in monitoring and reporting efforts. It successfully implemented a Performance Monitoring System, completed Baseline Survey, and surpassed goals for Workshop Information

Dissemination, engaging stakeholders. Emphasized gender inclusivity, knowledge dissemination, and commitment to Monitoring & Evaluation (M&E) capacity building.

9. The program achieved progress in promoting gender diversity and mainstreaming. It has improved joint decision-making in the control group, exceeded targets for women in management roles in Farmer Water User Committees (FWUCs) and achieved gender diversity in PDS and SPS Facilities and construction sub-committees. There is also varied female participation in Agricultural Cooperatives. The program established gender policies, focal persons, and task forces and demonstrated commitment to gender equality and inclusivity in decision-making, management positions, and program implementation.

10. **Program Outcomes.** The program aimed to boost Cambodia's paddy production from 8.0 million tons in 2012 to 9.5 million tons by 2018. By 2023, Cambodia's paddy production reached 12.6 million tons (achieving 132.6% against the target), and over 4 million tons were exported, generating \$1.786 billion in revenue. These accomplishments were driven by strategic investments in irrigation, post-harvest infrastructure, improved seeds, fertilizers, and advanced farming techniques. Additionally, agricultural cooperatives (ACs) played a crucial role in supporting production, post-harvest management, and quality seed production. In collaboration with provincial authorities, the program established and strengthened 19 ACs across Kampong Thom, Prey Veng, and Battambang, equipping them with storage and drying facilities and enhancing their ability to meet market demands. These cooperatives have contributed significantly to contract farming, particularly with rice millers, for key rice varieties such as Phka Rumduol and Sen Kraob, improving their production efficiency and market competitiveness. Further, the introduction of improved and high-yielding rice varieties like Sen Kraob and OM varieties<sup>1</sup> has led to greater resilience and adaptability to agro-ecological conditions, allowing farmers to increase productivity. This diversification, combined with better practices, has resulted in notable yield improvements, from 2.5 tons to 4-5 tons per hectare in some areas. These combined efforts have strengthened Cambodia's rice sector, ensuring sustainable growth and resilience in both domestic and export markets.

11. **Increased Milled Rice Exports.** Cambodia's milled rice exports reached 690,829 tons in 2020 before COVID-19 pandemic. This is 99% of the DMF target of 700,000 tons. In 2023, Cambodia's milled rice exports reached 656,323 tons, marking a 3% growth compared to previous years. While this is 94% of the DMF target, it still contributed significantly, generating \$466 million in export revenue, or 26% of the total rice export value. China remained the largest market, accounting for 45% of exports, followed by Europe at 32%, and other international markets at 23%. Driven by improved production practices, adherence to quality standards, and expanded market access, Cambodia also strengthened trade ties with Indonesia and the Philippines in 2023. The selling price of rice on the international market rose to \$700/ton, reflecting a 20% increase, while fragrant rice dominated exports, accounting for 81.79% of total shipments. However, challenges such as rising paddy prices, higher electricity costs, and disrupted shipping routes due to global conflicts have affected competitiveness.

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<sup>1</sup> OM varieties are not the target of Rice-SDP as this is promoted by traders in Vietnam. The rising demand of rice has led to the aggressive marketing of OM varieties promoted by Vietnam. This unintended outcome of the project has improved the revenue of the farmers.

12. **Completion of Guidelines for Establishing Agricultural Land Use Zones.** The program aimed to complete guidelines for establishing agricultural land use zones by 2020, achieving 100% completion of this goal on February 22, 2019.
13. **Commune Land Use Plans Incorporating Agro-Ecosystem Analysis.** The program developed commune land-use plans incorporating agro-ecosystem analysis for all 90 target communes by 2022, achieving 100% accomplishment.
14. **Reduced Post-Harvest Losses.** Post-harvest losses significantly decreased within the Treatment Group from 15% to 9.9%, achieving a 5.1% reduction, or 102% of the target (the target is to reduce by 5%, from 15% loss. This reduction was higher compared to the target post-harvest reduction of 5%. Comparing the Treatment Group to the Control Group, farmers in the Treatment Group had lower post-harvest losses.
15. **Program Impacts. Increased Average Farming Household Incomes.** The program significantly improved average farming household incomes, increasing from \$400 in 2010 to \$773 per month by 2023 based on the Endline Survey in early part of 2024, which is 110% above the target of \$700. A more conservative estimate indicates an annual income of \$9,273, which aligns with the 110% accomplishment. Households in the Treatment Group experienced an increase in income of \$2,958 per year compared to the baseline. The Difference-in-Difference (DID) analysis confirmed that the Treatment Group's income was substantially higher than that of the Control Group, underscoring the effectiveness of the program's interventions.
16. **Increased Revenue of Rice Exporters.** Cambodia's rice export revenue in 2023 reached \$1.786 billion, significantly surpassing the DMF target of \$600 million set for 2020, achieving 297% of the goal. Of this total, 26% came from milled rice exports, valued at \$466 million, while 74% was from paddy rice exports, valued at \$1.32 billion. The remarkable overachievement highlights the success of strategies implemented to boost revenue generation in the rice export sector.
17. **Increased Net Profit of Rice Exporters.** The program aimed to raise the net profit of rice exporters from \$30 million in 2012 to \$180 million by 2020. While specific data for 2020 is unavailable, profit analysis for 2023 provides insights. In 2023, Cambodia's total rice exports generated \$1.786 billion, with average profit from milled rice estimated at \$81.55 million and average profit from paddy rice estimated at \$99 million. The combined aggregate profit is estimated at \$180.55 million, achieving 100% of the target. However, challenges such as rising costs and limited empirical data impact the accuracy of these estimates.
18. **Increased Yield of Rice.** The program's target was to raise rice yields from 3.25 tons per hectare in 2020 to 3.50 tons per hectare by 2025. The actual achievement was 6.54 tons per hectare, representing 187% of the target. The Treatment Group's average annual yield increased from 4.68 tons per hectare to 6.54 tons per hectare, outpacing the Control Group's yield of 3.48 tons per hectare. The program's interventions, including improved rice varieties and cultivation techniques, significantly boosted productivity.
19. **Reduced Vulnerability to Climate Change.** The program's impact on reducing vulnerability to climate change was notable. The Treatment Group's vulnerability index was lower than that of the Control Group, despite heightened exposure to climate-related impacts such as

typhoons and droughts. The DID analysis revealed a reduction in vulnerability by -4.847, highlighting the effectiveness of the program's climate resilience measures. The Treatment Group's Climate Change Vulnerability Index of 23.82 was lower compared to the Control Group's 30.03, indicating better climate resilience due to the program's interventions.

20. **Improved Food Security.** The Treatment Group experienced a significant increase in rice surplus, reaching 118.8 kg per household by the endline evaluation, compared to a rice shortage of -63.4 kg at baseline. The Control Group, on the other hand, saw a decline in rice surplus from 287.3 kg to 114.4 kg. The program's impact on rice surplus was estimated at 355 kg, showing substantial improvements in food security. The Food Insecurity Experience Scale (FIES) analysis demonstrated a significant reduction in food insecurity within the Treatment Group, with FIES scores decreasing from 1.03 at baseline to 0.07 at endline. The program's interventions were effective in enhancing food security and mitigating the effects of climate change on rice production. In response to rice shortages, 32.4% of households in the Treatment Group reported buying rice from the market due to high paddy prices, while some consumed remaining rice from previous seasons. This adaptation reflects the program's role in helping households manage rice shortages and highlights the resilience of the Treatment Group in coping with food security challenges.

21. **Program Efficiency.** The program's efficiency was examined through a Benefit-Cost Analysis (BCA) from 2017 to 2024. It considered costs and benefits adjusted to 2024 levels, using Cambodia's Consumer Price Index. Financial criteria like Net Present Value (NPV), Internal Rate of Return (IRR), and Benefit Cost Ratio (BCR) were used, applying a 15% interest rate for discounting. A sensitivity analysis checked the program's viability against changes in NPV, IRR, and BCR criteria. Implementation costs were \$65.095 million. Net annual benefits ranged from \$14.849 million to \$57.638 million in different phases, resulting in a total net benefit of \$72.487 million. Benefits, valued at \$137.582 million, came from increased paddy rice production and other factors. Discounted net benefits were \$18.043 million, showing a positive NPV, an IRR of 36%, and a favorable BCR of 1.4. The project proved resilient in the sensitivity analysis, maintaining positive results even with a 10% decrease in benefits and 10% increase on costs. This evaluation confirms the project's efficiency, substantial net benefits, and positive impact on investment returns, indicating its economic viability.

Criteria	Normal BCA	Result of Sensitivity Analysis
Net Present Value (NPV) (in thousand \$)	18,043	7,472
Internal Rate of Return (IRR)	36%	23%
Benefit Cost Ratio (BCR)	1.4	1.15

22. **Sustainability.** The sustainability assessment is focused on staff preparedness, institutional readiness, and economic viability. Key to the phasing-out strategy is the establishment of Public-Private Partnerships (PPP) for PDSF, SPSF and WICI, which ensure continuity by strengthening stakeholder capacity. Investments in private partners and community services have stimulated ongoing engagement and self-sustaining activities. Concessional loans to rice millers have also led to modernization and expansion, indicating a positive trajectory for sustainability.

23. The institutional readiness assessment reveals mixed results. PIOs are confident in their staff's qualifications and training but express concerns about workload and resource limitations.

The average scores on a 4-point Likert scale reflect strengths in personnel training and readiness but highlight weaknesses in logistics and funding. Strategic resource allocation and addressing workload challenges are necessary to ensure continued support for the Rice-SDP post-completion.

24. Technical sustainability is strong across the FWUC Advisory Committees in Battambang, Prey Veng, and Kampong Thom, credited to the training provided by the program. All committees have access to necessary equipment and facilities, which support their continued technical capabilities. The evaluations confirm that the training and resources have effectively enhanced the technical sustainability of these committees.

25. The program's economic impact is substantial, with total benefits of \$137.582 million and net annual benefits of \$57.638 million over 5 years, leading to a total net benefit of \$72.487 million. The implementation cost of \$65.095 million resulted in a favorable Net Present Value (NPV) of \$18.043 million, an Internal Rate of Return (IRR) of 36%, and a Benefit Cost Ratio (BCR) of 1.4. Even with a 10% decrease in benefits, the program's economic viability remains strong, demonstrating its efficiency and positive return on investment.

26. **Opportunities and Challenges.** Rice-SDP, during its endline evaluation, reveals significant opportunities and challenges essential for understanding its performance, sustainability, and future potential. Opportunities such as the growing demand for high-quality seeds, expansion of the export market, and potential increases in rice production underscore the program's potential to enhance economic growth and food security. However, the program faces critical challenges, including limited capacity in drying facilities, challenges of rice millers to access loans from ARDB, and implementation hurdles with Weather Indexed Crop Insurance (WICI). Additionally, issues such as capital constraints for land leveling, high costs of farm inputs and electricity, and difficulties in seed processing and storage highlight areas needing targeted interventions. By addressing these challenges while leveraging opportunities, Rice-SDP can ensure continuous improvement, adaptability, and long-term success in a dynamic agricultural environment.

27. **Lessons Learned.** The program endline evaluation reveals several valuable lessons that can guide the implementation of future agricultural projects. Firstly, aligning development program with private property, particularly using rice millers' private lands for PDSF, can enhance investor confidence and streamline access to financial resources. Strategic partnerships with financial institutions like the Agricultural and Rural Development Bank (ARDB) are crucial for successful program implementation. The program's innovation in pilot testing Weather Indexed Crop Insurance (WICI) underscores the importance of regulatory frameworks and forward-thinking planning. Increased production and investments by rice millers demonstrate the positive economic impact of program interventions. The Rice Millers' constraint of accessing loans from the ARDB to expand their paddy rice procurement is constrained by the latter's policy on collaterals. Addressing challenges in accessing capital by revisiting valuation policies of ARDB to include infrastructure and technological advancements can unlock greater financial support. The success in transferring technical knowledge highlights the role of input suppliers as key information sources, emphasizing collaborative efforts. The influence of Vietnam in seed trading underscores the need to understand regional market dynamics. Empowering marginalized communities and promoting gender inclusivity are vital for sustainable community-based

initiatives. Continuous training programs to reduce post-harvest losses and effective communication strategies for promoting innovative insurance schemes like WICI are essential for maximizing agricultural efficiency and mitigating climate-related risks.

28. **Conclusions.** The evaluation of the program reveals commendable success, reflecting an overall rating of 3.88, indicative of excellent performance across critical areas. Notably, the project has consistently progressed towards its objectives, achieving a rating of 3.88 (Excellent) signifying commendable achievement. Efficiency-wise, the program has excelled with a perfect rating of 4.00, showcasing economic viability even after subjecting to sensitivity analysis. Moreover, the impacts of the program, also rated at 4.00, underscore its significant contribution to enhancing farmers' income. However, lingering concerns persist regarding exporters' vulnerability to global rice market fluctuations, and sustainability issues, rated at 2.89, hint at operational challenges within the SPSF and moderate concerns about the capability of the Provincial Implementing Office (PIO) on logistics and funding. While the program has performed exceptionally well, continuous efforts are vital to address specific improvement areas and ensure sustained success in the future.

29. The program is capitalizing on its strengths that contribute to its effectiveness and positive impact. Through initiatives focused on paddy rice production, the program has successfully empowered farmers with enhanced knowledge, enabling them to make informed decisions and enhance yields. Additionally, capacity-building efforts have bolstered milled rice production, ensuring a more efficient milling process. The presence of the Seed Processing and Storage Facility (SPSF) and capable agricultural cooperatives further enhances the seed value chain, facilitating the production and distribution of high-quality rice seeds.

30. The evaluation noted a few challenges such as costly farming operations, and reliance on foreign technicians to maintain and adjust the modern rice milling machinery. Additionally, limitations in the WICI system such as the limited number of weather stations are some hurdles that need to be addressed.

31. Despite these challenges, numerous opportunities exist for the Rice-SDP. Growing demand for quality seeds, expanding export markets, and projected increases in rice production present avenues for growth. Moreover, available technologies and growing interest in sustainable practices offer opportunities for enhanced productivity and efficiency. The rising awareness of crop insurance and the stable domestic market for rice further contribute to the program's potential for success.

32. The program faces threats such as competition from rice varieties from neighboring countries, and challenges in the export market due to global conflicts and climate change. Addressing these threats requires strategic mitigation strategies to ensure the program's resilience and sustained impact.

33. Continued dedication and adaptive strategies will be essential to ensuring the program's long-term success and positive impact on rice production and livelihoods.

Evaluation Area	Average Rating	Weight	Weighted Score	Remarks
I. Achieving the Target	4.00	0.29	1.18	Successfully achieved most of the targets, showcasing commendable progress.
II. Efficiency	4.00	0.29	1.18	The program has surpassed the Benefit-Cost Analysis (BCA) criteria, demonstrating financial viability. It remains stable even after subjecting to sensitivity analysis.
II. Impacts	4.00	0.29	1.18	The program has significantly enhanced farmers' income, as evidenced by the positive outcomes in the Difference-in-Difference (DID) analysis. Yet, attention is required to address the vulnerability of exporters to the global rice market fluctuations.
IV. Sustainability	2.89	0.11	0.34	While the PIOs are technologically equipped to assume responsibility for post-Rice-SDP operations, they remain concerned about the limited operational budget after the program phases out. They worry that the logistical needs for post-program operations will not receive adequate support.
<b>Average</b>			<b>3.88</b>	<b>Descriptive Rating: Excellent</b>

34. **Recommendations.** To further enhance the program's impact and address identified challenges, the following recommendations are proposed. The recommendations aim to address current challenges and ensuring the continued success and sustainability of the program, ultimately benefiting stakeholders across the rice value chain.

- **Continue Promoting Technological Adoption:** Promote the adoption of state-of-the-art technologies among farmers to optimize practices and increase productivity in the rice value chain.
- **Continue Supporting and Address Evolving Needs of Rice Millers:** Provide affordable loans and capitalization to rice millers to enhance their procurement capabilities, contributing to the growth of the rice industry.
- **Assist Rice Millers with Rice Silo Technologies:** Aid rice millers in adopting rice silo technologies to improve storage efficiency and sustainability in the rice value chain.
- **Intensify the Engagement of Agricultural Cooperatives:** Collaborate with agricultural cooperatives and rice seed growers to supply high-quality seeds, ensuring reliable seed management practices and availability.
- **Provide Subsidy of Rice Seed Prices:** Reduce seed prices through subsidies or alternative mechanisms to make quality seeds more accessible, fostering widespread adoption and improving crop yield and quality.
- **Expand Post-Harvest Infrastructure:** Increase the establishment of Post-Harvest and Drying facilities to minimize losses and support the efficiency of the rice production process.

- **Support the Expansion of Drying Facilities:** Provide support for drying facilities to agricultural cooperatives to address limited capacity and storage challenges, ensuring better post-harvest practices.
- **Develop Educational Curricula for Rice Processing:** Incorporate rice milling into agricultural engineering curricula in universities to supply local expertise on rice processing technologies.
- **Expand Insurance Coverage:** Expand the WICI scheme coverage to mitigate risks associated with unpredictable weather patterns, providing financial protection to farmers.
- **Invest in Climate-Resilient Rice Varieties:** Invest in climate-resilient rice varieties to adapt to changing climate conditions and ensure sustainable rice production.
- **Expand the Irrigation Infrastructure:** Invest in irrigation infrastructure to mitigate the impact of changing precipitation patterns and ensure consistent water availability for rice cultivation.
- **Promote Alternative Energy Sources:** Support alternative energy sources such as hydropower plants to reduce reliance on conventional electricity and enhance sustainability in rice production.
- **Evaluate the Potential of Financial Hedging for Milled Rice Exporters:** Evaluate feasibility of financial hedging and implement risk management strategies to address global conflicts affecting transport costs and market price volatility.
- **Promote Land Management Efficiency through Land Consolidation:** Promote the consolidation of land to achieve economies of scale, streamline technology adoption, and modernize land management practices in rice farming.

*(Source: Project Endline Report, Rice-SDP & Rice-SDP AF, Submitted by CRCC Co., Ltd.)*

## Appendix 5 - Project Cost at Approval and Actual

Project Cost at Approval and Actual (\$'000)						
	Estimate at Approval			Actual		
	Original Project	Additional Financing (Grant 0818)	Total Cost	Original Project	Additional Financing (Grant 0818)	Total Cost
<b>A. Investment Costs</b>						
<b>1. Subprojects</b>						
<b>a. Civil Works</b>						
Civil Works (Irrigation)	12,938.8	-	12,938.8	13,829.4	-	13,829.4
Civil Works (Grain Handling)	7,020.0	590.0	7,610.0	6,536.8	312.9	6,849.7
Survey, Design and Supervision	1,995.9	-	1,995.9	2,947.3	-	2,947.3
<b>Subtotal</b>	<b>21,954.6</b>	<b>590.0</b>	<b>22,544.6</b>	<b>23,313.5</b>	<b>312.9</b>	<b>23,626.4</b>
<b>b. Specialized Equipment</b>						
Grain Drying Equipment	7,020.0	-	7,020.0	8,392.4	-	8,392.4
Laboratory Equipment	147.4	-	147.4	251.8	-	251.8
Farm Machinery (G0818)	0.0	660.0	660.0	-	511.3	511.3
<b>Subtotal</b>	<b>7,167.4</b>	<b>660.0</b>	<b>7,827.4</b>	<b>8,644.2</b>	<b>511.3</b>	<b>9,155.5</b>
<b>c. Associated Initiatives</b>	<b>1,422.0</b>	<b>590.0</b>	<b>2,012.0</b>	<b>3,337.4</b>	<b>606.7</b>	<b>3,944.1</b>
<b>Subtotal</b>	<b>30,544.1</b>	<b>1,840.0</b>	<b>32,384.1</b>	<b>35,295.1</b>	<b>1,430.9</b>	<b>36,726.0</b>
<b>2. Contract Services</b>						
Land-use Zoning	1,808.3	-	1,808.3	2,188.1	-	2,188.1
Certified Seed Production	855.0	1,290.0	2,145.0	1,259.6	1,260.0	2,519.5
Crop Insurance	2,000.0	410.0	2,410.0	2,169.6	536.3	2,705.8
Milling Support	486.0	-	486.0	434.9	-	434.9
<b>Subtotal</b>	<b>5,149.3</b>	<b>1,700.0</b>	<b>6,849.3</b>	<b>6,052.1</b>	<b>1,796.2</b>	<b>7,848.3</b>
<b>3. Resettlement</b>	<b>431.3</b>	<b>-</b>	<b>431.3</b>	<b>-</b>	<b>-</b>	<b>0.0</b>
<b>4. Land Purchase</b>	<b>750.0</b>	<b>-</b>	<b>750.0</b>	<b>-</b>	<b>-</b>	<b>0.0</b>
<b>5. Vehicles and Equipment</b>						
Vehicles	210.6	100.0	310.6	630.2	107.6	737.8
Motorcycles	192.0	-	192.0	165.6	-	165.6
Office Equipment	260.5	-	260.5	395.9	-	395.9
<b>Subtotal</b>	<b>663.1</b>	<b>100.0</b>	<b>763.1</b>	<b>1,191.7</b>	<b>107.6</b>	<b>1,299.3</b>
<b>6. Consulting Services</b>						
International consultants	4,476.0	-	4,476.0	3,055.2	-	3,055.2
National Consultants	1,535.8	-	1,535.8	2,951.0	-	2,951.0
Consultant Support Costs	233.9	-	233.9	356.3	-	356.3
<b>Subtotal</b>	<b>6,245.7</b>	<b>-</b>	<b>6,245.7</b>	<b>6,362.5</b>	<b>-</b>	<b>6,362.5</b>
<b>7. Training and Studies</b>	<b>1,464.7</b>	<b>280.0</b>	<b>1,744.7</b>	<b>2,071.5</b>	<b>446.9</b>	<b>2,518.4</b>
<b>8. Implementation and Supervision</b>						
Government Staff	1,189.3	-	1,189.3	1,736.6	-	1,736.6
Implementation Capacity Development	334.0	-	334.0	26.2	-	26.2
Incremental Staff	3,895.2	-	3,895.2	2,086.5	-	2,086.5
Office Operation	1,589.8	-	1,589.8	2,301.5	-	2,301.5
Vehicle and Equipment O&M	293.5	-	293.5	625.7	-	625.7
Monitoring, Evaluation and Gender Mainstreaming	405.0	-	405.0	537.3	-	537.3
<b>Subtotal</b>	<b>7,706.8</b>	<b>-</b>	<b>7,706.8</b>	<b>7,313.8</b>	<b>-</b>	<b>7,313.8</b>
<b>9. Duties &amp; Taxes</b>	<b>5,091.8</b>	<b>-</b>	<b>5,091.8</b>	<b>-</b>	<b>-</b>	<b>0.0</b>
<b>Total BASELINE COSTS</b>	<b>58,046.7</b>	<b>3,920.0</b>	<b>61,966.7</b>	<b>58,286.8</b>	<b>3,781.7</b>	<b>62,068.4</b>
Physical Contingencies	1,688.8	-	1,688.8	-	-	0.0
Price Contingencies	2,749.6	-	2,749.6	-	-	0.0
<b>Total PROJECT COSTS</b>	<b>62,485.1</b>	<b>3,920.0</b>	<b>66,405.1</b>	<b>58,286.8</b>	<b>3,781.7</b>	<b>62,068.4</b>
Interest During Implementation	927.0	-	927.0	840.5	-	840.5
Commitment Charges	18.8	-	18.8	-	-	0.0
<b>Total Costs</b>	<b>63,430.9</b>	<b>3,920.0</b>	<b>67,350.9</b>	<b>59,127.3</b>	<b>3,781.7</b>	<b>62,909.0</b>

### Appendix 6-1 - Project Cost at Approval by Financier

Project Cost at Approval by Financier (\$'000)													
	RGC		ADB ADF Loan		GAFSP - Grant		ADB SCF - Loan		ADB SCF - Grant		Total Cost		Duties & Taxes <sup>a</sup>
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	(G)
	(A)	(A/F)	(B)	(B/F)	(C)	(C/F)	(D)	(D/F)	(E)	(E/F)	(F)		
<b>I. Investment Costs</b>													
<b>A. Subprojects</b>													
<b>1. Civil Works</b>													
Civil Works (Irrigation)	1,437.6	10.0	9,630.2	67.0	0.0	0.0	3,308.6	23.0	0.0	0.0	14,376.4	22.7	1,437.6
Civil Works (Grain Handling)	780.0	10.0	7,020.0	90.0	0.0	0.0	0.0	0.0	0.0	0.0	7,800.0	12.3	780.0
Survey, Design and Supervision	221.8	10.0	949.3	42.8	624.7	28.2	0.0	0.0	421.9	19.0	2,217.6	3.5	221.8
<b>Subtotal</b>	<b>2,439.4</b>	<b>10.0</b>	<b>17,599.5</b>	<b>72.1</b>	<b>624.7</b>	<b>2.6</b>	<b>3,308.6</b>	<b>13.6</b>	<b>421.9</b>	<b>1.7</b>	<b>24,394.0</b>	<b>38.5</b>	<b>2,439.4</b>
<b>2. Specialized Equipment</b>													
Grain Drying Equipment	780.0	10.0	0.0	0.0	7,020.0	90.0	0.0	0.0	0.0	0.0	7,800.0	12.3	780.0
Laboratory Equipment	16.4	10.0	0.0	0.0	147.4	90.0	0.0	0.0	0.0	0.0	163.8	0.3	16.4
<b>Subtotal</b>	<b>796.4</b>	<b>10.0</b>	<b>0.0</b>	<b>0.0</b>	<b>7,167.4</b>	<b>90.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>7,963.8</b>	<b>12.6</b>	<b>796.4</b>
<b>3. Associated Initiatives<sup>b</sup></b>													
	158.2	8.9	531.3	29.6	0.0	0.0	1,103.0	61.5	0.0	0.0	1,792.5	2.8	158.2
<b>Subtotal</b>	<b>3,394.0</b>	<b>9.9</b>	<b>18,130.8</b>	<b>53.1</b>	<b>7,792.1</b>	<b>22.8</b>	<b>4,411.5</b>	<b>12.9</b>	<b>421.9</b>	<b>1.2</b>	<b>34,150.4</b>	<b>53.8</b>	<b>3,394.0</b>
<b>B. Contract Services</b>													
Land-use Zoning	247.6	10.0	0.0	0.0	2,228.5	90.0	0.0	0.0	0.0	0.0	2,476.1	3.9	247.6
Certified Seed Production	117.1	10.0	0.0	0.0	1,053.6	90.0	0.0	0.0	0.0	0.0	1,170.7	1.8	117.1
Crop Insurance	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2,000.0	100.0	2,000.0	3.2	0.0
Milling Support	65.4	10.0	0.0	0.0	0.0	0.0	588.5	90.0	0.0	0.0	653.9	1.0	65.4
<b>Subtotal</b>	<b>430.1</b>	<b>6.8</b>	<b>0.0</b>	<b>0.0</b>	<b>3,282.2</b>	<b>52.1</b>	<b>588.5</b>	<b>9.3</b>	<b>2,000.0</b>	<b>31.7</b>	<b>6,300.7</b>	<b>9.9</b>	<b>430.1</b>
<b>C. Resettlement</b>													
	431.3	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	431.3	0.7	0.0
<b>D. Land Purchase</b>													
	886.1	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	886.1	1.4	0.0
<b>E. Vehicles and Equipment</b>													
Vehicles	126.4	35.0	234.7	65.0	0.0	0.0	0.0	0.0	0.0	0.0	361.0	0.6	126.4
Motorcycles	55.8	20.0	223.4	80.0	0.0	0.0	0.0	0.0	0.0	0.0	279.2	0.4	55.8
Office Equipment	32.2	10.0	190.5	59.1	99.7	30.9	0.0	0.0	0.0	0.0	322.5	0.5	32.2
<b>Subtotal</b>	<b>214.5</b>	<b>22.3</b>	<b>648.6</b>	<b>67.4</b>	<b>99.7</b>	<b>10.4</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>962.8</b>	<b>1.5</b>	<b>214.5</b>
<b>F. Consulting Services</b>													
International consultants	0.0	0.0	2,631.5	55.3	656.6	13.8	0.0	0.0	1,468.0	30.9	4,756.1	7.5	0.0
National Consultants	212.1	10.0	944.7	44.5	459.5	21.7	0.0	0.0	504.6	23.8	2,120.8	3.3	212.1
Consultant Support Costs	28.6	9.4	171.0	56.0	0.0	0.0	0.0	0.0	105.5	34.6	305.2	0.5	28.6
<b>Subtotal</b>	<b>240.7</b>	<b>3.4</b>	<b>3,747.2</b>	<b>52.2</b>	<b>1,116.1</b>	<b>15.5</b>	<b>0.0</b>	<b>0.0</b>	<b>2,078.1</b>	<b>28.9</b>	<b>7,182.1</b>	<b>11.3</b>	<b>240.7</b>
<b>G. Training and Studies</b>													
	200.9	10.0	0.0	0.0	1,808.5	90.0	0.0	0.0	0.0	0.0	2,009.5	3.2	200.9
<b>H. Implementation and Supervision</b>													
Government Staff	1,657.4	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,657.4	2.6	165.7
Implementation Capacity Development	0.0	0.0	334.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	334.0	0.5	0.0
Incremental Staff	541.9	10.0	4,877.0	90.0	0.0	0.0	0.0	0.0	0.0	0.0	5,418.9	8.5	541.9
Office Operation	219.1	10.0	1,972.1	90.0	0.0	0.0	0.0	0.0	0.0	0.0	2,191.2	3.5	219.1
Vehicle and Equipment O&M	40.4	10.0	363.2	90.0	0.0	0.0	0.0	0.0	0.0	0.0	403.6	0.6	40.4
Monitoring, Evaluation and Gender Mainstreaming	55.7	10.0	0.0	0.0	501.5	90.0	0.0	0.0	0.0	0.0	557.2	0.9	55.7
<b>Subtotal</b>	<b>2,514.5</b>	<b>23.8</b>	<b>7,546.3</b>	<b>71.4</b>	<b>501.5</b>	<b>4.7</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>10,562.3</b>	<b>16.7</b>	<b>1,022.8</b>
<b>Total PROJECT COSTS</b>	<b>8,312.1</b>	<b>13.3</b>	<b>30,073.0</b>	<b>48.1</b>	<b>14,600.0</b>	<b>23.4</b>	<b>5,000.0</b>	<b>8.0</b>	<b>4,500.0</b>	<b>7.2</b>	<b>62,485.1</b>	<b>98.5</b>	<b>5,503.0</b>
Interest During Implementation <sup>c</sup>	0.0	0.0	927.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	927.0	1.5	0.0
Service Charges for ADB SCF Loan	18.8	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.8	0.0	0.0
<b>Total Disbursement<sup>d e</sup></b>	<b>8,330.8</b>	<b>13.1</b>	<b>31,000.0</b>	<b>48.9</b>	<b>14,600.0</b>	<b>23.0</b>	<b>5,000.0</b>	<b>7.9</b>	<b>4,500.0</b>	<b>7.1</b>	<b>63,430.9</b>	<b>100.0</b>	<b>5,503.0</b>

**Notes:**

<sup>a</sup> Financed by the Royal Government of Cambodia.

<sup>b</sup> Include agricultural extension, farmer cooperative support, land leveling, and other subproject-related activities.

<sup>c</sup> The ADB ADF loan will finance interest charges during implementation incurred from this loan and recurrent implementation and supervision costs.

<sup>d</sup> ADB and ADB-administered funding may finance bank charges, transportation and insurance costs.

<sup>e</sup> Contingency is included in each line item.

## Appendix 6-2 - Project Cost at Completion by Financier

Project Cost at Completion by Financier (\$'000)															
	RGC		ADB ADF Loan		GAFSP - Grant		ADB SCF - Loan		ADB SCF - Grant		AF Grant 0818		Total Cost		Duties & Taxes <sup>a</sup>
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	
	(A)	(A/G)	(B)	(B/G)	(C)	(C/G)	(D)	(D/G)	(E)	(E/G)	(F)	(F/G)	(G)		(G)
<b>I. Investment Costs</b>															
<b>A. Subprojects</b>															
<b>1. Civil Works</b>															
Civil Works (Irrigation)	1,389.4	10.0	2,902.7	21.0	6,358.2	46.0	3,179.1	23.0	0.0	0.0	0.0	0.0	13,829.4	22.0	1,382.9
Civil Works (Grain Handling)	681.8	10.0	5,855.0	85.5	0.0	0.0	0.0	0.0	0.0	0.0	312.9	4.6	6,849.7	10.9	653.7
Survey, Design and Supervision	294.7	10.0	1,261.4	42.8	831.1	28.2	0.0	0.0	560.0	19.0	0.0	0.0	2,947.3	4.7	294.7
<b>Subtotal</b>	<b>2,366.0</b>		<b>10,019.1</b>	<b>42.4</b>	<b>7,189.3</b>	<b>30.4</b>	<b>3,179.1</b>	<b>13.5</b>	<b>560.0</b>	<b>2.4</b>	<b>312.9</b>	<b>0.01</b>	<b>23,626.4</b>	<b>37.6</b>	<b>2,331.4</b>
<b>2. Specialized Equipment</b>															
Grain Drying Equipment	848.2	10.1	7,544.3	89.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8,392.4	13.3	839.2
Laboratory Equipment	25.2	10.0	0.0	0.0	226.7	90.0	0.0	0.0	0.0	0.0	0.0	0.0	251.8	0.4	25.2
Farm Machinery (G0818)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	511.3	100.0	511.3	0.8	0.0
<b>Subtotal</b>	<b>873.3</b>		<b>7,544.3</b>	<b>82.4</b>	<b>226.7</b>	<b>2.5</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>511.3</b>	<b>100.0</b>	<b>9,155.6</b>	<b>14.6</b>	<b>864.4</b>
<b>3. Associated Initiatives<sup>a</sup></b>															
Associated Initiatives	158.2	8.8	531.3	29.6	0.0	0.0	1,103.0	61.5	0.0	0.0	0.0	0.0	1,792.5	2.8	179.3
Associated Initiatives	140.7	8.9	734.0	53.3	539.7	27.8	130.5	9.9	0.0	0.0	606.7	100.0	2,151.6	3.4	215.2
<b>Subtotal</b>	<b>3,538.2</b>		<b>18,828.7</b>		<b>7,955.7</b>		<b>4,412.6</b>		<b>560.0</b>		<b>1,430.9</b>	<b>100.0</b>	<b>36,726.1</b>	<b>58.4</b>	<b>3,590.2</b>
<b>B. Contract Services</b>															
Land-use Zoning	216.8	9.9	0.0	0.0	1,971.3	90.1	0.0	0.0	0.0	0.0	0.0	0.0	2,188.1	3.5	218.8
Certified Seed Production	126.0	5.0	0.0	0.0	1,133.6	45.0	0.0	0.0	0.0	0.0	1,260.0	50.0	2,519.6	4.0	126.0
Crop Insurance	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2,169.6	80.2	536.3	19.8	2,705.9	4.3	0.0
Milling Support	43.5	10.0	0.0	0.0	0.0	0.0	391.4	90.0	0.0	0.0	0.0	0.0	434.9	0.7	43.5
<b>Subtotal</b>	<b>386.2</b>		<b>0.0</b>	<b>0.0</b>	<b>3,104.9</b>	<b>39.6</b>	<b>391.4</b>	<b>5.0</b>	<b>2,169.6</b>	<b>27.6</b>	<b>1,796.3</b>	<b>22.9</b>	<b>7,848.5</b>	<b>12.5</b>	<b>388.3</b>
C. Resettlement	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
D. Land Purchase	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>E. Vehicles and Equipment</b>															
Vehicles	220.6	35%	409.6	55.5	0.0	0.0	0.0	0.0	0.0	0.0	107.6	100.0	737.8	1.2	63.0
Motorcycles	33.1	20.0	132.5	80.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	165.6	0.3	16.6
Office Equipment	39.6	10.0	234.0	59.1	122.3	30.9	0.0	0.0	0.0	0.0	0.0	0.0	395.9	0.6	39.6
<b>Subtotal</b>	<b>293.3</b>		<b>776.1</b>	<b>59.7</b>	<b>122.3</b>	<b>9.4</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>107.6</b>	<b>100.0</b>	<b>1,299.3</b>	<b>2.1</b>	<b>119.2</b>
<b>F. Consulting Services</b>															
International consultants	0.0	0.0	1,689.5	55.3	421.6	13.8	0.0	0.0	944.0	30.9	0.0	0.0	3,055.2	4.9	0.0
National Consultants	295.1	10.0	1,313.2	44.5	640.4	21.7	0.0	0.0	702.3	23.8	0.0	0.0	2,951.0	4.7	442.6
Consultant Support Costs	33.5	9.4	199.6	56.0	0.0	0.0	0.0	0.0	123.3	34.6	0.0	0.0	356.3	0.6	35.6
<b>Subtotal</b>	<b>328.6</b>		<b>3,202.2</b>	<b>50.3</b>	<b>1,062.0</b>	<b>16.7</b>	<b>0.0</b>	<b>0.0</b>	<b>1,769.7</b>	<b>27.8</b>	<b>0.0</b>	<b>0.0</b>	<b>6,362.5</b>	<b>10.1</b>	<b>478.3</b>
G. Training and Studies	206.9	10%	0.0	0.0	1,862.2	74.0	0.0	0.0	0.0	0.0	446.9	100.0	2,516.0	4.0	206.9
<b>H. Implementation and Supervision</b>															
Government Staff	1,736.3	100%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,736.3	2.8	86.8
Implementation Capacity Development	0.0	0.0	26.2	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.2	0.0	0.0
Incremental Staff	208.6	10%	1,877.8	90.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2,086.5	3.3	313.0
Office Operation	302.8	10%	2,001.0	86.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2,303.8	3.7	230.4
Vehicle and Equipment O&M	62.6	10%	563.2	90.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	625.7	1.0	62.6
Monitoring, Evaluation and Gender Mainstreaming	53.7	10%	0.0	0.0	483.5	90.0	0.0	0.0	0.0	0.0	0.0	0.0	537.3	0.9	53.7
<b>Subtotal</b>	<b>2,364.1</b>	<b>32.3</b>	<b>4,468.2</b>	<b>61.1</b>	<b>483.5</b>	<b>6.6</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>7,315.8</b>	<b>11.6</b>	<b>746.5</b>
Duties & Taxes	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total PROJECT COSTS</b>	<b>7,117.4</b>	<b>11.5</b>	<b>27,275.2</b>	<b>43.9</b>	<b>14,590.8</b>	<b>45.0</b>	<b>4,803.9</b>	<b>7.7</b>	<b>4,499.2</b>	<b>7.2</b>	<b>3,781.7</b>	<b>100.0</b>	<b>62,068.2</b>	<b>98.7</b>	<b>5,529.3</b>
Interest During Implementation <sup>b</sup>	0.0	0.0	840.5	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	840.5	1.3	0.0
Service Charges for ADB SCF Loan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total Disbursement<sup>c</sup></b>	<b>7,117.4</b>	<b>11.3</b>	<b>28,115.7</b>	<b>44.7</b>	<b>14,590.8</b>	<b>23.2</b>	<b>4,803.9</b>	<b>7.6</b>	<b>4,499.2</b>	<b>7.2</b>	<b>3,781.7</b>	<b>100.0</b>	<b>62,908.7</b>	<b>100.0</b>	<b>5,529.3</b>

## Notes:

<sup>a</sup> Financed by the Royal Government of Cambodia.<sup>b</sup> Include agricultural extension, farmer cooperative support, land leveling, and other subproject-related activities.<sup>c</sup> The ADB ADF loan will finance interest charges during implementation incurred from this loan and recurrent implementation and supervision costs.<sup>d</sup> ADB and ADB-administered funding may finance bank charges, transportation and insurance costs.<sup>e</sup> Contingency is included in each line item.

### Appendix 7 - Disbursement of ADB Loan and Grant Proceeds

Annual and Cumulative Disbursement of ADB Loan and Grant Proceeds								
Year	Annual Disbursement (\$000)						Cumulative Disbursement (\$000)	
	Loans (ADB Loan 3007 and SCF Loan 8271)	Interest During Implementation (ADB Loan 3007)	Grants (GAFSP Grant 0349 & SCF Grant 0350)	Additional Financing (GAFSP Grant 0818)	Total Amount	% of Total	Total Amount	% of Total
2013	-	-	-	-	-	-	-	-
2014	741.45	1.82	210.66	-	953.94	2.2	953.94	1.6
2015	367.75	8.25	295.09	-	671.09	1.6	1,625.03	2.8
2016	1,697.60	14.42	910.04	-	2,622.06	6.2	4,247.08	7.2
2017	2,073.11	30.50	2,336.22	-	4,439.84	10.4	8,686.92	14.7
2018	4,652.84	54.56	5,244.69	-	9,952.09	23.4	18,639.01	31.6
2019	2,879.73	74.53	2,495.45	-	5,449.72	12.8	24,088.72	40.9
2020	4,700.73	97.39	2,856.05	-	7,654.17	18.0	31,742.90	53.9
2021	7,799.39	153.21	2,884.29	-	10,836.89	25.5	42,579.79	72.3
2022	3,989.38	292.19	438.04	1,219.64	5,939.25	10.6	48,519.04	82.4
2023	2,362.21	113.64	781.61	1,503.12	4,760.59	8.5	53,279.64	90.5
2024	850.65	-	541.48	1,072.84	2,464.97	4.4	55,744.61	94.6
2025	-	-	97.00	-	97.00	0.2	55,841.61	94.8
<b>Total</b>	<b>32,114.84</b>	<b>840.53</b>	<b>19,090.64</b>	<b>3,795.60</b>	<b>55,841.61</b>	<b>94.8</b>	<b>55,841.61</b>	<b>94.8</b>
<b>Note:</b>								
Approved Allocation (26 Aug 2013)	36,000.0	0.0	19,100.0	0.0	55,100.0			
Approved Additional Financing (Grant 0818) 24 Mar 2022	0.0	0.0	0.0	3,800.0	3,800.0			
<b>Total Financing</b>	<b>36,000.0</b>	<b>0.0</b>	<b>19,100.0</b>	<b>3,800.0</b>	<b>58,900.0</b>			
Total Undisbursed Balance	3,044.6	0.0	9.4	4.4	3,058.4			
Unused Balance at Advance Accounts	36.4	0	0.8	13.9	51.1			
* The RGC financed a total of \$8,450,800 included taxes and duties and cash.								

### Appendix 8 - Contract Awards of ADB Loan and Grant Proceeds

Annual and Cumulative Contract Awards of ADB Loan and Grant Proceeds							
Year	Annual Contract Awards (\$000)					Cumulative Contract Awards (\$000)	
	Loans (ADB Loan 3007 and SCF Loan 8271)	Grants (GAFSP Grant 0349 & SCF Grant 0350)	Additional Financing (GAFSP Grant 0818)	Total Amount	% of Total	Total Amount	% of Total
2013	-	-		-	-	-	-
2014	1,210.44	994.75		2,205.19	4.5	2,205.19	4.0
2015	1,226.85	86.97		1,313.82	2.7	3,519.01	6.4
2016	1,575.95	1,413.07		2,989.02	6.1	6,508.03	11.7
2017	6,719.39	8,283.21		15,002.59	30.8	21,510.63	38.8
2018	2,152.24	1,184.16		3,336.40	6.9	24,847.02	44.8
2019	2,917.20	3,448.29		6,365.49	13.1	31,212.51	56.3
2020	13,452.70	1,288.02		14,740.72	30.3	45,953.23	82.9
2021	1,969.76	735.23		2,704.99	5.6	48,658.22	87.8
2022	714.97	716.45	107.60	1,539.02	2.8	50,197.23	90.6
2023	832.21	822.31	2,684.73	4,339.25	7.8	54,536.48	98.4
2024	57.00	-	809.84	866.84	1.6	55,403.31	100.0
<b>Total</b>	<b>32,828.70</b>	<b>18,972.45</b>	<b>3,602.17</b>	<b>55,403.31</b>	<b>100.0</b>	<b>55,403.31</b>	<b>100.0</b>

## Appendix 9 - Gender Equality Results and Achievements

### I. Overall assessment of gender at completion.

1. The program was categorized as *effective gender mainstreaming (EGM)* and had a specific focus on addressing women farmers' access to resources, essential extension services, and decision-making. Its objectives included gender empowerment through training and dissemination of the latest advancements in agriculture to women farmers, their participation in planning and decision-making, and consultation with them on infrastructure design regarding community needs. To achieve these goals, the program implemented a Gender Action Plan (GAP) that was developed based on thorough social and gender analysis as well as stakeholder consultations. The GAP outlined specific actions to be implemented and continuously monitored to address gender disparities, promote women's empowerment, enhance their participation, and create economic opportunities in various sectors, including agriculture, water resources, infrastructure, and policy development.

2. The gender focal points assigned at the executing agency (MEF/PMO) and implementing agencies (MAFF/NIO, MOWRAM/NIO, MLMUPC/NIO, Battambang/PIO, Kampong Thom/PIO, and Prey Veng/PIO) were responsible for overseeing the continuous implementation, monitoring, and reporting of the GAP with support from implementation consultants, especially the gender specialist. The GAP progress was consistently monitored, updated, and documented in all progress reports. Sex-disaggregated data was collected to ensure the effectiveness of the monitoring and evaluation (M&E) system. At the conclusion of the program, an impressive 96% of the targets (22 out of 23) were successfully achieved, and one target was substantially achieved. Furthermore, all 19 actions (including those from the policy actions) outlined in the GAP were completed, accounting for a 100% success rate. The program demonstrated compliance with gender covenants and proved to be successful in delivering gender-inclusive outcomes and results. The GAP was considered highly successful in delivering gender equality results.

### II. Background.

3. The socioeconomic assessment and gender analysis conducted at the appraisal identified several challenges faced by women, including lack of education, limited access to resources, time constraints, and limited opportunities for participation and decision-making. The program supported the government of Cambodia in achieving its goals of inclusive economic growth and socio-economic development by focusing on enhancing human development. It aimed at promoting more women's engagement in the agriculture sector by improving access to land, extension services, financial services, markets, technology, and leadership and decision-making positions. These efforts aligned with Cambodia's strategic plans and strategies for growth, employment, equity, efficiency, and sustainability and contributed to the development of the rice value chain, sustainable economic growth in rural areas, and food security. The program developed the GAP to address the above-mentioned issues. The following key gender action plans were identified during the program development and updated during the implementation:

- i) Training and meetings: Ensuring that 50% of participants in agriculture and credit training and meetings are women. Holding separate on-farm trials and demonstrations for women's and men's farmer groups.
- ii) Community-based management committees: Striving for 30% representation of women in committee positions to enhance women's involvement in decision-making processes.
- iii) Farmer Water Users Communities (FWUCs) Advisory Committees: Comprising 50% women to safeguard their rights to equal access to water resources and decision-making, as well as their rights to appeal management decisions.
- iv) Agricultural Cooperatives (ACs) and farmer water user committees: Encouraging equal membership registration from both husbands and wives, with a target of 50% male and 50% female members.
- v) Rice drying and warehousing facilities: Targeting 25% employment of local women to promote their economic participation.
- vi) On-farm seed production facilities: Aiming to employ 50% local women due to their attention to detail in picking out non-conforming varietal phenotypes.
- vii) Infrastructure design: Ensuring equal representation and consultation of women in infrastructure planning, with 50% women in construction planning subcommittees.
- viii) Irrigation rehabilitation and construction works: Employing 40% women in unskilled labor positions to provide income-generating opportunities.
- ix) Health training: Incorporating training on protection from health risks, such as avian influenza, into poultry and animal husbandry trainings targeting women and older children responsible for these activities.
- x) Women's representation and gender expertise: Including women's representation and gender expertise in all working groups involved in policy development under the Rice-SDP.
- xi) Extension service field teams: Comprising 25% female extension workers to provide gender-balanced support and services.

### III. Performance Section.

4. The GAP covered 19 actions and 23 targets (with 5 AF targets), and the DMF included 13 gender indicators (with 2 AF indicators). At program completion, all 19 actions (100%) in GAP were completed, and 22 (96%) of 23 targets were 100% achieved, and one target was substantially achieved. All gender loan covenants were complied with, and 12 of 13 DMF gender performance indicators were 100% achieved, and one target was substantially achieved. The substantially achieved target (DMF - Target 6c and GAP - Target 18) required 30% of administrative and technical staff in the executing and implementing agencies to be female, but the program could achieve only 22% female staff (46 females among 212 staff) due to the very low representation of women in the technical positions in the ministries and provincial governors' offices. The details of GAP achievements are in Table A9.1: Gender Action Plan Achievements Matrix below.

5. **Performance of executing agency.** The performance of the executing agency, the Ministry of Economy and Finance (MEF), was highly satisfactory. They assigned gender focal points at the executing and implementing agencies to oversee the implementation of GAP. The

gender focal points, with the support of the gender experts and other implementation consultants, played a vital role in supervising and monitoring the implementation of GAP. Together with program managers, they provided guidance on gender mainstreaming, GAP implementation, gender sensitization, and the collection of sex-disaggregated data for the program management office (PMO), national implementation offices (NIOs), provincial implementation offices (PIOs), and project staff at national and provincial levels. GAP was translated into Khmer, and gender checklists were developed to track progress. Although there was a gap in the national gender expert for a year, the progress of the GAP was regularly monitored and documented in quarterly progress reports to ensure transparency and accountability. The reports included a comprehensive table tracking the quality of GAP progress, which was submitted on a regular basis. The program performance monitoring system (PPMS) included the collection of sex-disaggregated data to assess the gender-related outcomes and outputs of the program. GAP was also integrated into the annual work plan and budget. This approach allowed the program managers to evaluate the effectiveness of the GAP and ensure that gender-related targets and objectives were adequately addressed.

6. **Performance of ADB.** ADB's performance was highly satisfactory. The gender team from the Asian Development Bank (ADB) actively participated in review missions, providing valuable guidance, support, and prompt responses to inquiries from the PMO. ADB support missions, which monitored the implementation of the GAP, were frequent and timely. The ADB team offered orientation on the GAP and outlined requirements for preparing gender equality results upon program completion for the PMO, NIOs, and PIOs. In addition to the support missions, ADB arranged meetings with the program's gender team to offer coaching and mentoring on GAP implementation, monitoring, and evaluation. As a result of this support, the program's gender team adhered to the requirements of the GAP and conducted interviews on gender results with farmers and stakeholders of the program. These interviews included stories of change. The executing agency recognized the significance of this technical support in ensuring the successful and on-track implementation of the GAP.

#### IV. Changes in Scope

7. There was only one change to the scope of the gender targets or activities in the DMF as well as GAP during the processing of the additional financing<sup>1</sup>. The revised GAP gender indicator included:

Target	Original Indicator	New Indicator
DMF- Target 5a. GAP- Target 16	Some 50% of farmers under the pilot insurance scheme will be women and 10% of these to be female headed households.	Some 50% of farmers under the pilot insurance scheme will be women.

8. At the completion of the program, one target (see para 4) was substantially achieved. The executing agency informed the review missions, including the additional financing fact-finding mission, that this indicator might not be fully achieved. This has been reflected in para 2 of the additional financing project document (footnote 1). However, this indicator was kept without any change, and the PMO, NIOs, and PIOs tried their best to achieve the target.

<sup>1</sup> ADB. 2022. *Additional Financing Report: Proposed Administration of Grant to Cambodia for Climate Resilient Rice Commercialization Sector Development Program (Additional Financing)*. Manila.

**V. Program Contribution to Operational Priority 2**

9. The program’s GAP made significant contributions to all 5 pillars OP2, Pillar 1: Women’s economic empowerment increased, Pillar 2: Gender equality in human development enhanced, Pillar 3: Gender equality in decision-making and leadership enhanced, Pillar 4: Reduced time poverty of women, and Pillar 5: Women’s resilience to external shocks strengthened.

10. **Pillar 1: Women’s economic empowerment increased. Affordable Water Supply:** The program supported irrigation rehabilitation to provide access to water for paddy rice farming. Consideration was given to the distance between irrigation systems and female farmers’ fields. A total of 100,095 farmers, including 51,053 women (51%), benefited and improved their access to water for agriculture and household needs. In terms of households, a total of 20,510 households, including 2,862 female-headed households (14%), gained access to water. The program aimed to promote gender equality by ensuring access to water and incorporating gender perspectives. This has likely improved women farmers’ livelihoods, rice productivity, and household well-being. Female farmers reported achieving an average rice yield of 8-10 tons per hectare during the dry season and 5 tons per hectare during the wet season. Besides the increase in rice productivity, women also saved 25% of their input cost for rice production over the year.

**Case study one: Mrs. Un Ny’s Journey to Improved Rice Productivity through an Enhanced Irrigation System in Prey Veng province**

**Introduction**

Mrs. Ny, a 57-year-old woman with 2 hectares of paddy rice field, residing in a rural village in Cambodia -Ansong commune, Kampong Trabek district of Prey Veng province- was determined to improve her rice productivity and enhance her livelihood. With limited resources and facing the challenges of the existing irrigation system, Mrs. Ny embarked on a journey to leverage the benefits of an improved irrigation system.

**Challenges Faced**

- Inadequate Water Supply: Mrs. Ny relied on existing and traditional irrigation methods, which were inefficient and often resulted in insufficient water supply for her rice fields.
- Time-Consuming Process: The traditional irrigation techniques required significant time and effort, leaving Mrs. Ny with limited time for other activities and impacting her productivity.
- Dependence on Rainfall: Mrs. Ny’s rice crops were highly dependent on rainfall, making her vulnerable to unpredictable weather patterns and risking crop failure.

**Accessing Improved Irrigation System**

Mrs. Ny learned about Rice-SDP, which aimed to rehabilitate irrigation infrastructure in her village. She actively participated in training sessions and workshops organized by the program, which introduced improved irrigation system and their potential benefits. Through the program, Mrs. Ny gained access to an improved irrigation system that promised to address her existing challenges.

**Implementation and Benefits:**

- Rehabilitation of Irrigation Infrastructure: Rice-SDP rehabilitated the irrigation system, including canals and water distribution channels, in Mrs. Ny’s village. This infrastructure aimed to provide a reliable and sufficient water supply to her and other female and male farmers.

- **Training and Capacity Building:** Mrs. Ny received training in the operation and maintenance of the new irrigation system. She learned about water management techniques, including proper scheduling and efficient utilization of water resources.
- **Increased Water Availability:** With the improved irrigation system, Mrs. Ny was no longer dependent solely on rainfall. She could now access a steady water supply, ensuring consistent irrigation for her rice crops throughout the growing season.
- **Time and Effort Savings:** The rehabilitated irrigation system significantly reduced the time (50% - from 3-5 hours to 1.5-2.5 hours in irrigating water for the paddy rice field per ha) and effort required for irrigating her rice fields. Mrs. Ny no longer had to spend much time on irrigating water, allowing her to allocate more time to other income-generating activities and improving her overall rice productivity.
- **Enhanced Crop Yield:** The reliable and sufficient water supply, coupled with proper water management practices, resulted in increased rice productivity at least two cycles per season for Mrs. Ny. Her crops flourished, and she achieved higher yields compared to previous years (increased from 5 tons to 8 or 10 tons per hectare with the price of \$0.3 per kilogram due to the ban of rice exports by India; therefore, she was offered a higher price by Vietnam's traders).
- **Economic Empowerment:** The improved rice productivity translated into higher income for Mrs. Ren. She was able to generate a surplus from her harvest, which she invested in diversifying her agricultural activities and improving her family's standard of living.

**Conclusion:**

Through her determination and the support of the irrigation rehabilitation under Rice-SDP, Mrs. Ny transformed her rice farming practices. Access to an improved irrigation system not only addressed her water-related challenges but also empowered her to become more productive and self-reliant. Mrs. Ny's success story serves as an inspiration for other women in Cambodia, demonstrating that improved irrigation systems can be a catalyst for enhancing agricultural productivity, economic empowerment, and improved livelihoods in rural communities.

**Case study two: Empowering Women Farmers through Improved Irrigation Systems in Chhouk Khsach Subproject of Kampong Thom province.**

**Background:**

In Cambodia, agriculture is the backbone of the economy, and rice is the staple crop. However, water scarcity and inadequate irrigation infrastructure have been major challenges for farmers, limiting their productivity and income. This case study highlights the story of Mrs. Seng Kunthear – a 41 year-old woman farmer with a 5-hectare paddy rice field, who successfully improved her rice productivity by adopting an improved irrigation system.

Mrs. Kunthear is a rice farmer living in a rural village – Chhouk Khsach commune, Baray district of Kampong Thom province. Like many farmers in her community, she faced difficulties in cultivating rice due to the unreliable and inefficient irrigation system. Water shortages during critical growth stages of the rice crop resulted in reduced yields and income for Mrs. Kunthear and her family.

**Intervention: Improved Irrigation System through Rice-SDP**

Recognizing the need to address water scarcity and improve rice productivity, the program provided support to rehabilitate an irrigation system in Mrs. Kunthear's village. The intervention included the following components:

- **Rehabilitated Irrigation Infrastructure:** The subproject involved the rehabilitation of the Chhouk Khsach irrigation system that utilized water from a nearby river. A canal network was established to distribute water evenly to the rice fields. The system incorporated distribution channels to ensure a reliable and consistent water supply throughout the cropping season.
- **Training and Capacity Building:** Mrs. Kunthear and other farmers in the community received training in water management techniques, proper irrigation practices, and maintenance of the irrigation infrastructure. They were educated on optimizing water use, scheduling irrigation cycles, and preventing water wastage.
- **Women's Empowerment:** The program recognized the importance of empowering women farmers like Mrs. Kunthear. Special efforts were made to ensure their active participation in decision-making processes related to irrigation management. Women were encouraged to join FWUC and actively engage in discussions and planning related to water allocation, maintenance, and crop management.

**Results and Impact:**

- **Increased Rice Productivity:** With the improved irrigation system, Mrs. Kunthear experienced a significant increase in rice productivity from 6 – 10 tons per hectare. The consistent water supply throughout the growth stages of the crop resulted in healthier plants and better grain development. Mrs. Kunthear's yield increased, fetching a high price for quality paddy (\$0.25 per kilogram), leading to higher income and improved food security for her family.
- **Enhanced Water Management:** The training provided to Mrs. Kunthear and other farmers improved their understanding of water management techniques. They learned to optimize water use, avoid over-irrigation, and minimize water losses. This led to more efficient water utilization and reduced water wastage in the community.
- **Women's Empowerment and Leadership:** The program considered women's empowerment, empowering Mrs. Kunthear and other women farmers to actively participate in decision-making processes. Their involvement in irrigation management and FWUC increased their confidence, leadership skills, and influence within the community.
- **Socio-economic Benefits:** The increased rice productivity and income generated through the improved irrigation system had broader socio-economic benefits.
- Mrs. Kunthear was able to invest in her children's education, improve her family's living conditions, and diversify her income through additional non-crop activities such as chicken raising.

**Conclusion:**

Through access to the rehabilitated irrigation system, Mrs. Kunthear, a woman farmer in Chhouk Khsach commune of Baray district, Kampong Thom province, significantly improved her rice productivity and income. The intervention not only enhanced rice productivity but also empowered women farmers and promoted gender equality in decision-making processes. By combining infrastructure development, capacity building, and women's empowerment, the program showcased the transformative potential of improved irrigation systems in improving the livelihoods of rural farmers, particularly women.

11. **Unskilled and Skilled Labor:** The program focused on providing employment opportunities for women in civil works construction, operation of drying and storage facilities, and quality seed production. A total of 9,777 unskilled workers, including 41% (3,989) women, were employed in civil works construction. In the operation of paddy drying and storage (PDS) facilities in rice mills and seed processing and storage (SPS) facilities in agricultural stations, a total of

1,171 unskilled workers, including 33% (392) women and a total of 167 administrative staff, including 53% (88) women, were employed. In the seed production program, 67% of the 23,243 laborers were women, playing a significant role in seed production activities. The program provided employment opportunities to a total of 38,494 skilled and unskilled workers, including 20,323 (53%) women. Specifically, the program generated employment opportunities for a total of 19,826 unskilled laborers, including 10,640 women (54%).

12. **Access to and benefits from extension services:** The program aimed to provide both female and male farmers with access to and benefits from various agricultural extension services. These services included improved cultivation practices, farmer field schools, pilot on-farm trials and demonstrations, post-harvest technology, and land leveling, especially laser land leveling. At the completion of the program, a total of 373,176 participants, including 193,412 (52%) females, received the training. Among them, 352,120 participants were farmers and community members, of whom 188,164 (53%) were women farmers. These women farmers significantly improved their knowledge and capacity and successfully adopted the promoted technologies. For example, at the completion of the program, 304,861 farmers, including 154,819 (51%) female farmers, successfully leveled their paddy fields. The farmers adopting land leveling technology represented 45.8% of the total farmers (665,520) in the target areas. These statistics clearly demonstrate the active participation and successful implementation of various technologies by women farmers within the program. By focusing on capacity building and the adoption of improved rice production practices such as post-harvest technology and land leveling, the program has effectively enhanced the knowledge and productivity of women farmers while supporting their economic empowerment and promoting sustainable rice production. Based on the field mission conducted during the program implementation, both women and male farmers reported a saving of 25% in input cost and a 20% increase in rice yield per hectare through the adoption of laser land leveling.

**Case study three: Enhancing Rice Productivity through Laser Land Leveling in Svay Teap, Ampil Krao commune, Sithorkandal district, Prey Veng province.**

***Introduction:***

This case study focuses on the success story of Mrs. Hor Heng, a woman farmer from Svay Teap, Ampil Krao commune, Sithorkandal district, Prey Veng province, who significantly improved her rice productivity by adopting improved laser land leveling techniques. By embracing this improved agricultural practice, Mrs. Heng overcame the challenges posed by uneven land surfaces, resulting in enhanced crop yields and increased income for her family.

***Background:***

Mrs. Heng resides in Svay Teap, Ampil Krao commune, Sithorkandal district, Prey Veng province of Cambodia, where rice cultivation is the primary livelihood for most of her family. She has traditionally practiced conventional farming techniques. However, the uneven topography of the land often led to suboptimal water distribution, uneven crop growth, and reduced yields.

***Implementation of Laser Land Leveling:***

The program introduced laser land leveling as a sustainable solution to address the land unevenness issue. Mrs. Heng became a participant in land leveling, especially the laser land leveling initiatives aimed at promoting the advanced technique among rice production farmers in her village.

The process of laser land leveling involves the use of a laser-guided system mounted on a tractor. The laser equipment accurately measures the field's topography, allowing the tractor to level the land surface

by adjusting the blade's height automatically. This precision leveling technique eliminates unevenness, creating a uniform field with consistent water distribution.

**Results and Benefits:**

After Mrs. Heng adopted laser land leveling on her rice field, she witnessed numerous positive outcomes:

- **Enhanced Crop Yields:** The improved land surface facilitated better water management, enabling uniform distribution across the field. As a result, the rice plants received adequate irrigation, reducing water stress and promoting optimal growth. Mrs. Heng observed a significant increase in her crop yields, with some varieties yielding up to 20% more than before.
- **Reduction in Production Costs:** Prior to laser land leveling, Mrs. Heng faced challenges in applying fertilizers and other inputs due to the uneven terrain. With a level field, she could efficiently use mechanical equipment for fertilizer application, resulting in reduced labor costs and optimal utilization of resources - approximately a 25% reduction in inputs.
- **Time Savings:** Laser land leveling streamlined the farming process by reducing the time required for irrigation and drainage. The even surface allowed water to flow uniformly across the field, minimizing the need for manual adjustments. Consequently, Mrs. Heng saved valuable time, which she could invest in other agricultural activities or personal pursuits.
- **Increased Income and Economic Empowerment:** The significant improvement in crop yields translated into higher income for Mrs. Heng and her family. With surplus produce, she could engage in commercial rice trading, fetching better prices in the market. The additional income empowered Mrs. Heng to improve her family's living conditions, invest in education, and expand her agricultural operations.

**Conclusion:**

Mrs. Heng's journey exemplifies the transformative impact of laser land leveling on rice productivity in Cambodia. By embracing this improved technique, she overcame the challenges of uneven land surfaces, increased her crop yields, and significantly improved her family's economic well-being. The success of Mrs. Heng's story not only influenced other farmers but also contributed to the overall replication of the laser land leveling adoption in her village.

**Case study four: Mrs. Sin Phally 's Journey to Improved Rice Productivity through Laser Land Leveling in Chhouk Khsach commune, Baray district of Kampong Thom province.**

**Introduction:**

Mrs. Phally, a 42 year-old woman with 10 hectares of paddy rice field, is a rice farmer residing in Chhouk Khsach commune, Baray district of Kampong Thom province of Cambodia. Like many other farmers in her community, Mrs. Phally faced challenges in achieving high and consistent rice yields due to uneven land topography. However, through the adoption of improved laser land leveling techniques introduced by the program, she was able to significantly enhance her rice productivity and improve her livelihood. This case study explores Mrs. Phally's journey and the impact of laser land leveling on her farming practices.

**Background:**

Mrs. Phally's family relied solely on rice farming for their commercial purpose and income. However, due to the uneven nature of her land, she encountered problems such as uneven water distribution,

waterlogging in some areas, and poor fertilizer distribution. These factors led to inconsistent yields and limited income for her family.

***Introduction to Laser Land Leveling:***

Recognizing the need for a solution, Mrs. Phally learned the benefits of laser land leveling through agricultural extension programs supported by Rice-SDP. Laser land leveling is an improved agricultural technique that uses laser-guided equipment to level the field accurately. It involves the use of a laser transmitter and receiver mounted on a leveling blade, which helps create a smooth and uniform surface.

***Adoption of Laser Land Leveling:***

Inspired by the potential benefits, Mrs. Phally decided to adopt laser land leveling on her rice fields. She attended training programs organized by agricultural experts to learn about the equipment, techniques, and best practices associated with laser land leveling.

***Implementation and Results:***

With the help of a local agricultural service provider and PIO/KPT, Mrs. Phally initiated the laser land leveling process on her farmland. Following the laser land leveling process, Mrs. Phally observed several positive outcomes:

- **Improved Water Management:** The leveled field facilitated better water distribution, ensuring uniform coverage and reduced waterlogging issues. This improved water management not only enhanced the overall growth of rice plants but also minimized the risk of disease and pest infestations.
- **Enhanced Fertilizer Efficiency:** The uniform field surface enabled more accurate application of fertilizers, reducing wastage and ensuring that nutrients are evenly distributed. This led to improved nutrient uptake by the rice plants, resulting in healthier and more robust growth.
- **Increased Yields:** The combined effects of improved water management and enhanced fertilizer efficiency resulted in significantly increased rice yields for Mrs. Phally. The uniform field surface allowed for optimal plant spacing, light interception, and reduced competition among the plants, leading to higher productivity (15% to 20% increase in yield) and improved grain quality.

***Economic and Social Impacts:***

The improved rice productivity had a positive impact on Mrs. Phally's livelihood. She was able to harvest larger quantities of rice, which not only fulfilled her family's food requirements but also generated a surplus for sale in the local market (to traders from Vietnam). The increased income allowed her to invest in better agricultural inputs, education for her children, and household improvements, enhancing the overall standard of living for her family.

***Conclusion:***

Mrs. Phally's journey demonstrates the transformative impact of laser land leveling on rice farming in Kampong Thom province. By adopting this improved agricultural technique, she overcame the challenges posed by uneven land topography and significantly improved her rice productivity. The success of her endeavors not only benefited her family but also inspired and empowered other farmers in her community to embrace laser land leveling, leading to sustainable agricultural development and improved livelihoods for many.

13. **Access to finance:** The program aimed at enhancing access to credit and financial resources for farmers, particularly women and poor farmers, involved in rice production. Several initiatives were implemented to achieve this goal, including: a) market facilitation activities were

conducted, involving 3,584 participants, including 1,665 women (46%); b) provincial meetings were organized, focusing on credit accessibility for rice seed/paddy production, with 76 women (36%) out of 214 farmers in attendance; c) AC-Millers contract farming meetings were held, where both male and female AC members received training on loan management and collateral procedures; d) workshops on financial access were conducted to enhance the financial and technical management capacity of rice millers in which 190 participants, including 16 (8%) females participated; e) financial institution staff training was provided, with 4 females (3%) out of 124 staff members from financial institutions received the training; f) farmer training sessions were conducted by trained financial institution staff to educate 1,249 farmers, including 566 (45%) females, on the requirements of financial institutions for accessing credit; g) AC committee members training sessions were conducted to educate 1,117 AC committee members, including 584 women (52%), on Financial Management/Access to Finance/Reduction in Financing Cost. The percentage of total AC committee members trained was 92%; and h) input supplier training aimed to improve collaboration within the value chain, involving 2,267 suppliers, of which 738 were females (33%). These efforts were focused on improving financial literacy, expanding access to credit, and fostering collaboration among farmers, millers, and financial institutions in the rice production sector.

14. **Access to inputs:** The program's endline survey in 2024 found 71.3% of farmers, including 27.2% female-headed households, in target provinces used commercial rice seed every 2 years. The survey found a total of 84.3% of farmers, including 30% female farmers, adopted certified rice seeds. The survey also found that 65% of farmers in the target provinces, including 28% female-headed households, obtained technical advice from trained input suppliers.

15. **Pillar 2: Gender equality in human development enhanced.** The program provided several capacity-building and training programs for rice production actors.

16. **FWUC capacity building:** Within the FWUCs, a significant number of women received training in group management and irrigation scheme operations and maintenance. Specifically, 44,321 women, representing 52% of the total 84,659 FWUC members, received training in various topics such as FWUC formation, RGCs' law, Sub-degree No.31, construction subcommittee (CSC), Statute Sub-committee (SSC), financial management and accounting, basic administration, repairs/maintenance, and conflict resolution.

17. **AC capacity building:** A total of 166 capacity-building activities were conducted for ACs on various topics, including business plan preparation, business development, report writing (including annual reports), preparation and publication of statutes and internal regulations of ACs, as well as management and leadership training. A total of 7,851 AC members, including 2,582 (33%) women, participated in the capacity building activities. In addition, 92% AC committee members, a total of 1,117 AC committee members, including 584 women (52%), were trained in business plan development, report writing, general concepts of financial management/access to finance/reduction in financing cost, GBV, paddy market facilitation, and seed business forum. This highlights the focus on empowering and building the capacity of women within the ACs, ensuring their active participation and contribution to the cooperative's management and development.

18. **Agriculture extension capacity building, land leveling, financial access, and WICI:** Under the agriculture extension capacity building, the program covered a total of 157,996 farmers, including 86,620 (55%) women. Furthermore, the program provided market facilitation capacity building to a total of 3,597 AC farmers, including 1,583 (44%) women AC farmers; land leveling training to 88,304 farmers, including 44,553 (50%) women; financial institution requirement

training to 1,249 farmers, including 566 (45%) women; and weather-indexed crop insurance (WICI) scheme dissemination training to 114,230 farmers, AC members, subnational/local authorities, MFI representatives, insurance company staff, and government officials, including 60,711 (53%) women. Overall, the program provided capacity building to a total of 373,176 beneficiaries, including 181,672 (52%) women. Specifically, a total of 352,120 farmers and community members, including 188,164 (53%) women, participated in the capacity-building activities. These numbers demonstrate a strong emphasis on women's participation and empowerment throughout the program's capacity-building initiatives.

#### **Case study five: Mrs. Rath Rin, Empowering Women Rice Production through Agriculture Extension Service in Battambang**

##### ***Introduction:***

Mrs. Rin, a 43 year-old female farmer, is an inspiring woman from Anglong Run commune, Thmor Kol district of Battambang, who has experienced significant benefits through her participation in the agriculture extension services under Rice-SDP. Her story exemplifies the positive impact of empowering women in the agricultural sector and highlights the transformative role played by the program in improving sustainable rice production.

##### ***Background:***

Mrs. Rin comes from a farming family in Anglong Run commune, Thmor Kol district of Battambang province of Cambodia, where rice cultivation is the primary livelihood for most households. However, like many women in her community, Mrs. Rin faced numerous challenges, including limited access to resources, lack of technical knowledge, and gender-based disparities in decision-making. The program aimed to address such issues and promote sustainable rice farming practices.

##### ***Participation in Rice-SDP:***

Mrs. Rin actively engaged in the agriculture extension training provided by the program in Battambang province and got access to various resources and support mechanisms:

- **Training and Capacity Building:** Mrs. Rin received comprehensive training in various subjects such as commune agro-ecosystem, seed production, soil mapping, farming systems, agricultural machinery, drying and storage, and post-harvest technology. These training sessions equipped her with the necessary skills and knowledge to improve the quality and productivity of her rice crops.
- **Access to Improved Inputs:** Through the program, Mrs. Rin gained access to high-quality seeds, fertilizers, and pesticides from the trained input suppliers. The availability of these improved inputs helped her enhance the rice yield and reduce post-harvest losses.
- **Technical Assistance and Advisory Services:** The program provided Mrs. Rin with regular coaching and advisory services from agriculture extension officers in Battambang province. These experts visited her farm, provided guidance on crop management practices, and addressed her queries and concerns. Mrs. Rin valued the personalized support, which proved instrumental in improving her farming techniques.

##### ***Benefits and Empowerment:***

Mrs. Rin's involvement in the program resulted in significant benefits and empowerment for her:

- **Increased Productivity and Income:** By adopting the improved farming practices learned through the program, Mrs. Rin witnessed a substantial increase in her rice yield from 5 to 8 tons per

hectare. The higher productivity translated into increased income for her family, enabling them to meet their basic needs and invest in their future.

- **Women's Empowerment:** The program recognized the importance of gender equality and women's empowerment in the rice value chain. Mrs. Rin actively participated in gender-focused workshops that aimed to address gender disparities, enhance women's decision-making power, and promote their active involvement in rice production activities. These initiatives empowered Mrs. Rin to become a role model for other women in her community, encouraging them to participate in rice production activities and take leadership roles.
- **Sustainable Farming Practices:** Through the program, Mrs. Rin gained a deep understanding of commune agro-ecosystem, seed production, soil mapping, farming systems, agricultural machinery, drying and storage, and post-harvest technology.

**Conclusion:**

Mrs. Rin's experience with the program exemplifies the transformative potential of empowering women through agricultural extension services. By equipping women with knowledge, resources, and support, programs like Rice-SDP can enhance sustainable rice production, improve livelihoods, and promote gender equality in rural Cambodia.

Mrs. Rin's success serves as an inspiration for other women, encouraging their active participation and leadership in the rice subsector, ultimately leading to more resilient and prosperous farming communities.

19. **Pillar 3: Gender equality in decision making and leadership enhanced.** The program made deliberate efforts to ensure the active participation of women in community-based organizations, such as the Farmer Water User Communities (FWUCs), construction subcommittees, advisory committees, and agricultural cooperatives (ACs). These efforts were aimed at promoting gender balance and inclusiveness in decision-making processes.

20. **Commune land use plans (CLUPs):** There was significant female participation in the preparation of CLUPs. Women constituted 56% of the participants, 6,336 females of the total 11,314 participating farmers. This highlights the program's commitment to incorporating women's perspectives in the CLUP preparation and implementation.

21. **Civil works subcommittee:** In the construction subcommittees, 113 females (55%) out of a total of 204 community members were present. This substantial representation of women provided them with a platform to voice their concerns and needs regarding the management of civil works. The significant presence of women in the construction subcommittee demonstrates a commitment to gender inclusivity and their meaningful participation in decision-making roles related to climate-resilient irrigation system rehabilitation.

22. **Management and Advisory Committee:** On the management and advisory committees, out of 307 members, 151 were women, accounting for 49.18% representation. Within the FWUCs' advisory committees, 54% (45 out of 84 members) were women, indicating the substantial involvement of women in shaping the direction and decision-making processes of the FWUCs. Additionally, 48% of the management positions in FWUCs were held by women, with 106 women out of a total of 223 committee members. Furthermore, out of a total of 26,320 farming households, 8,257 (31%) women-headed households became members of production/water user associations, such as AC and FWUC members. This demonstrates the active participation and

engagement of women in the associations, contributing to the overall development and sustainability of the rice subsector.

23. The statistics above highlight the significant representation and participation of women in community-based organizations and advisory committees, underscoring their involvement in decision-making processes and their contribution to shaping the program's outcomes. The program's emphasis on gender equity and inclusivity contributes to more comprehensive and tailored outcomes that address the specific needs and priorities of women beneficiaries.

**Case study six: Mrs. Mok Ravy and the Female Water User Community in Prey Sangha village, Battambang province**

***Introduction:***

Mrs. Mok Ravy, a 56 year-old woman who lives in Prey Sangha village, Khnach Romeas commune, Bovel district of Battambang province, has experienced significant benefits due to her involvement in a FWUC. This case study explores Mrs. Mok Ravy's journey, highlighting the positive impact of FWUCs on women's empowerment and water resource management in Cambodia.

***Background:***

Cambodia is an agrarian society where agriculture contributes significantly to the country's economy. However, limited access to water resources and inadequate management systems have posed challenges for farmers, particularly women, who are often marginalized and lack decision-making power. In response to these issues, the FWUCs established under the program emerged as a promising approach to promoting gender equality and improving water management.

***Mrs. Mok Ravy's Story:***

Mrs. Mok Ravy grew up in a rural village, Prey Sangha village, Khnach Romeas commune, Bovel district in Cambodia, where she witnessed the struggles her community faced due to water scarcity and inefficient irrigation practices. Despite societal barriers, Mrs. Mok Ravy was determined to make a difference and actively participated in community development initiatives.

***Implementation of FWUC:***

The program established 9 FWUCs. One of those FWUCs is in Mrs. Mok Ravy's village. Recognizing the need for inclusive water resource management, Mrs. Mok Ravy and a group of women farmers enthusiastically participated in the FWUC establishment and implementation.

***Leadership and Empowerment:***

Mrs. Mok Ravy's dedication and leadership qualities stood out, and she was elected as the vice chief of the management committee of the FWUC. This opportunity marked a turning point in her life, providing her with a platform to voice her concerns, contribute to decision-making processes, and advocate for women's rights in water management.

***Improved Water Management:***

Under Mrs. Mok Ravy's voice and advisory guidance, the FWUC implemented several initiatives to address water-related challenges. They collaborated with village and commune councils and PDOWRAM to secure funding for the rehabilitation of irrigation systems, ensuring a more reliable water supply for their agricultural activities. Mrs. Mok Ravy actively promoted water conservation practices, encouraging farmers to adopt efficient and safe irrigation techniques.

**Capacity Building and Knowledge Sharing:**

Recognizing the importance of knowledge sharing, Mrs. Mok Ravy facilitated the organization of training sessions and workshops for FWUC members supported by the program in Battambang province. These sessions covered topics such as water management techniques and O&M. Mrs. Mok Ravy's efforts empowered women within the community, enabling them to gain technical skills and actively participate in decision-making processes.

**Economic and Social Benefits:**

Through improved water management practices, the FWUC, led by the management committee of which Mrs. Mok Ravy is vice chief, significantly increased rice and other agricultural productivity in the village. The surplus produces not only improved food security but also creates economic opportunities. Mrs. Mok Ravy helped establish market linkages, enabling farmers to sell their produce at better prices, thus improving their income and economic well-being.

**Impact on Gender Equality:**

Mrs. Mak Ravy's success as a female leader in the FWUC challenged traditional gender norms and inspired other women in the community to actively engage in water management activities. By assuming leadership roles and participating in decision-making processes, women gained confidence, recognition, and a greater sense of empowerment within their households and the broader society.

**Conclusion:**

Mrs. Mak Ravy's journey as a vice chief in the FWUC exemplifies the transformative power of FWUCs in Prey Sangha village, Khnach Romeas commune, Bovel district of Battambang province. Through her efforts, Mrs. Mak Ravy not only improved water resource management but also empowered women to participate in decision-making processes and challenge gender inequalities. Her story serves as an inspiration for other communities striving for sustainable water management and women's empowerment.

24. **Agriculture Cooperatives:** The program's focus on promoting gender equality and women's empowerment extended to ACs as well. The management committee of ACs consisted of 1,218 members, with women comprising 51% (624 women). This significant representation of women in the decision-making processes and governance of the ACs highlights their active participation and influence in shaping the cooperative's activities and policies. In terms of membership, a total of 8,450 farmers and households became members of the ACs. Among these members, an impressive 60% (5,076 members) were women. This indicates a substantial involvement of women in the ACs, reflecting their active participation in agricultural activities and the functions of the cooperative. The high percentage of women members showcases their significant role and contribution to the ACs and the broader rice production subsector. Furthermore, out of the registered members, 1,501 households (18%) were headed by women. This demonstrates the program's recognition and support for female-headed households within the ACs. By acknowledging the unique needs and contributions of these households, the program aimed to create a supportive and inclusive environment that empowers women as leaders and decision-makers in agriculture.

25. The program's efforts to promote gender equality and women's empowerment within the ACs are evident through the substantial representation of women in the management committees

and their significant membership in the cooperatives. By providing opportunities for women farmers and female-headed households to become members and actively participate in the ACs, the program contributed to creating a more inclusive and equitable cooperative movement. This approach fosters the involvement of women in decision-making processes, strengthens their role in the rice value chain, and supports their overall economic empowerment.

**Case study seven: Mrs. Khoeun Ren, Empowering Women in Agricultural Cooperative Management in Prey Veng province**

***Introduction:***

Mrs. Ren, a 34 year-old woman who lives in Kampong Thnal village, Lvea commune, Preah Sdach district, Prey Veng province of Cambodia, has transformed her life through her involvement in Bopea Senchey AC management. Her journey showcases the positive impact of women in leadership positions within Bopea Senchey AC, empowering both themselves and their communities.

***Background:***

Mrs. Ren hails from Kampong Thnal village, Lvea commune, Preah Sdach district, Prey Veng province, where rice production is the primary livelihood for most residents. Traditionally, women in her community were assigned domestic roles and had limited opportunities to engage in decision-making or income-generating activities outside the household. However, with the establishment of AC, Mrs. Ren saw a chance to break free from the constraints of traditional gender roles and contribute to her family's well-being.

***Involvement in Bophea Senchey AC:***

Mrs. Ren became a member of Bophea Senchey AC, which aimed to improve the economic conditions of farmers in her village. Initially, she participated as an active member, attending meetings, learning about sustainable farming practices, and sharing her experiences with other farmers. Recognizing her dedication and potential, the cooperative members elected her to the management committee, making her one of the few women in a leadership position within the cooperative.

***Benefits and Empowerment:***

Mrs. Ren's appointment as a management committee member brought several benefits and opportunities for her and the cooperative:

- **Representation and Voice:** Mrs. Ren's presence on the management committee provided a valuable female perspective, ensuring that the needs and concerns of women farmers were adequately addressed. She actively advocated gender equality, leading to increased recognition and respect for women's roles in agriculture within her community.
- **Knowledge and Skill Development:** As a committee member, Mrs. Ren received training in various aspects of cooperative management, such as business plan preparation, business development, report writing (including the annual report), preparation and publication of the statutes and internal regulations of ACs, management and leadership. These trainings equipped her with valuable knowledge and empowered her to make informed decisions for the cooperative's benefit.
- **Economic Empowerment:** Mrs. Ren's involvement in cooperative management opened income-generating opportunities for her. She played a crucial role in securing fair prices for the cooperative's produce, including paddy rice, negotiating with buyers, and accessing government

support programs. The increased profitability of the cooperative directly translated into higher incomes for its members, including Mrs. Ren and her family.

- **Leadership and Community Impact:** Mrs. Ren's leadership role inspired other women in her community to actively participate in the cooperative and pursue leadership positions themselves. She organized training sessions specifically tailored to women farmers, focusing on financial literacy, entrepreneurship, and sustainable farming practices. Through these efforts, Mrs. Ren empowered other women to take charge of their lives and contribute to their families' economic stability.

**Conclusion:**

Mrs. Ren's journey highlights the transformative power of women in AC management. Through her dedication and commitment, she shattered gender stereotypes and emerged as a beacon of change in her community. By providing a platform for women's voices and actively involving them in decision-making processes, ACs in Cambodia, like the one Mrs. Ren is a part of, can harness the untapped potential of women, leading to improved livelihoods, gender equality, and sustainable development.

**Case study eight: Mrs. Srey Tha's Success as a Female Management Committee of Phalitakam Chhuk Khsach Agricultural Cooperative in Kampong Thom province.**

**Introduction:**

This case study explores the inspiring story of Mrs. Srey Tha, a 43 year-old woman from Phalitakam Chhuk Khsach AC in Kampong Thom province who achieved remarkable success as vice chief of the AC. Mrs. Tha's journey showcases her determination, leadership skills, and the positive impact she has had on the cooperative and the farming community.

**Background:**

Mrs. Tha lives in Chhuk Khsach commune, Baray district of Kampong Thom province, where agriculture, especially rice, is the primary livelihood for the local population. Despite facing numerous challenges and cultural barriers, she was determined to pursue a career in agriculture and make a difference in her community. Mrs. Tha believed that empowering farmers and promoting rice production are key to improving their lives.

**Leadership Development:**

To equip herself with the necessary skills and knowledge, she attended different capacity-building programs provided by the program in Kampong Thom province. She learned about cooperative management, report writing, financial management, business plan development, etc. Mrs. Tha's passion for agriculture and her eagerness to learn set her apart and caught the attention of AC management and program officials (PIO and PDAFF staff).

**Managerial Role in the Cooperative:**

Recognizing Mrs. Tha's potential, she was elected as the vice chief of Phalitakam Chhuk Khsach AC in her village. As the cooperative vice chief, Mrs. Tha was responsible for assisting the chief in overseeing the day-to-day operations, coordinating with farmers, managing finances, and implementing development projects. Mrs. Tha's appointment as a female cooperative vice chief was a significant milestone in her community, breaking gender barriers and inspiring other women to take up leadership roles.

***Empowering Farmers and Cooperative Members:***

Mrs. Tha's primary focus was to empower farmers and improve their livelihoods. She initiated the echo training programs that she received from the program and others to educate farmers. Mrs. Tha also facilitated access to agricultural resources such as quality seeds, fertilizers, and machinery, enabling farmers to enhance their productivity.

In addition to technical training, Mrs. Tha promoted financial literacy among cooperative members. She organized workshops on bookkeeping, budgeting, and savings, helping farmers manage their finances effectively. Mrs. Tha also advocated for fair pricing and established market linkages for the cooperative's produce, ensuring farmers received better returns for their products.

***Community Development and Recognition:***

Under Mrs. Tha's leadership, the cooperative became a catalyst for community development. The cooperative assisted farmers in accessing different infrastructure subprojects such as irrigation systems and improved storage facilities, benefiting not only cooperative members but the entire village. Mrs. Tha's efforts received recognition from village and commune authorities and other development partners.

***Women's Empowerment:***

Mrs. Tha was passionate about empowering women in agriculture, including the rice subsector, and ensuring their active participation in decision-making processes. She occasionally organized training programs exclusively for women, focusing on leadership skills and entrepreneurship. Mrs. Tha encouraged women farmers to take up leadership roles within the cooperative, promoting inclusivity and gender balance.

***Conclusion:***

Mrs. Tha's journey as a female vice chief of an AC in Chhouk Khsach commune demonstrates the transformative power of effective leadership and community engagement. Her dedication to empowering farmers and advancing gender equality has had a profound impact on the cooperative and the community at large. Mrs. Tha serves as an inspiration for women in AC and beyond, showcasing their ability to drive positive change in the agricultural and rice sector and contribute to rural development.

26. **Pillar 4: Reduced time poverty of women.** In general, a significant number of farmers have experienced positive outcomes from the enhanced irrigation and drainage services. Out of a total of 100,095 farmers benefitting from irrigation schemes, 51,053 (51%) were women. As for households, out of the 20,510 households that benefited from these services, 2,862 (14%) were headed by women. This emphasizes the support and advantages provided to households led by women through enhanced irrigation and drainage services. It demonstrates the significant impact and inclusion of women in accessing and utilizing the improved irrigation facilities. The improved irrigation facilities have aided both women and men in reducing the time required for watering their paddy fields, resulting in increased leisure time. Previously, women typically spent around 3-5 hours watering the paddy rice fields, whereas the new improved irrigation system has reduced their efforts by 50%.

27. **Pillar 5: Women's resilience to external shocks strengthened.** The program launched the WICI scheme to safeguard male and female farmers, enhancing their resilience in rice production by protecting them from potential shocks. At the program completion, a total of 133,198 farmer households were covered under the WICI scheme, with 71,156 (53%) of them being female-headed households. The scheme provided coverage for a total of 160,376 hectares of rice

field. Notably, the female achievement rate reached 106%, indicating that the number of female-headed households covered exceeded the target.

**Case study nine: Women’s Resilience to Weather Shock through the Weather Indexed Crop Insurance in Battambang and Kampong Thom**

**Introduction:**

This case study focuses on two women named Mrs. Chheng Seng Ngorn in Kampong Thom and Mrs. Khon Sokhon in Battambang, rice farmers living in rural villages in Cambodia. Mrs. Ngorn’s and Mrs. Sokhon’s livelihood primarily depends on rain-fed agriculture, and they face significant challenges due to unpredictable weather conditions and climate change. To mitigate the risks associated with adverse weather events, Mrs. Ngorn and Mrs. Sokhon enrolled in the WICI scheme pilot initiative under Rice-SDP, which proved to be beneficial for their agricultural activities and overall well-being.

**Background:**

Mrs. Ngorn and Mrs. Sokhon reside in Prey Sangha commune of Battambang and Chhouk Khsach commune of Kampong Thom, respectively, where agriculture is the main source of income for the local population. However, the region is vulnerable to climate-related risks such as droughts, floods, and extreme weather events. Mrs. Ngorn and Mrs. Sokhon’s families rely on the successful cultivation of rice for their sustenance and income generation. Any crop failure or yield reduction due to adverse weather conditions has severe consequences for their livelihood.

**Enrollment in Weather Indexed Crop Insurance:**

Recognizing the importance of protecting their crops against weather-related risks, Mrs. Ngorn and Mrs. Sokhon decided to enroll in the WICI scheme pilot initiative launched under the program. This initiative was initiated through a partnership approach between the program, insurance companies, MFIs/financial institutions, and ACs working for agricultural development. The insurance policy was specifically designed to provide financial compensation to farmers in the event of crop losses caused by deficit or excess rainfall.

**Insurance Coverage and Parameters:**

The WICI policy covered Mrs. Ngorn’s and Mrs. Sokhon’s rice crop against the risk of insufficient rainfall during the critical growth stages. The insurance payouts were triggered based on predefined weather parameters such as the number of consecutive rainless days or the cumulative rainfall during specific periods. The insurance company collaborated with local meteorological agencies to obtain accurate weather data for determining the payouts.

Benefits for Mrs. Ngorn and Mrs. Sokhon:

- Risk Mitigation: By enrolling in the WICI pilot initiative, Mrs. Ngorn and Mrs. Sokhon received protection against the adverse effects of weather-related crop losses based on the policy purchased (premium was set at \$10 per hectare, with a maximum compensation of \$100 per hectare). This reduced her vulnerability to income shocks caused by insufficient rainfall or droughts. The insurance coverage provided a much-needed safety net for their agricultural activities.
- Financial Stability: In a year when Mrs. Ngorn and Mrs. Sokhon experienced significant drought, their rice crops suffered from reduced yields. However, since the weather parameters triggering the insurance payouts were met, Mrs. Ngorn and Mrs. Sokhon received financial compensation from the insurance company. The compensation was credited directly into their bank accounts,

and they did not have to file any claim. This compensation helped them recover a portion of the losses incurred and maintain financial stability for their family.

- **Improved Confidence and Planning:** With the insurance coverage in place, Mrs. Ngorn and Mrs. Sokhon felt more confident in investing in their rice farming activities. They were able to purchase quality seeds, fertilizers, and other inputs without the constant fear of losing their investment due to adverse weather conditions. The insurance coverage provided them with peace of mind and empowered them to make better-informed decisions.
- **Enhanced Resilience:** The WICI pilot initiative contributed to enhancing Mrs. Ngorn and Mrs. Sokhon's resilience to climate change. By receiving timely payouts in the event of rice crop losses, they could recover more quickly and continue their agricultural activities without falling into a cycle of debt or poverty. Crop insurance acted as a risk management tool and strengthened their ability to cope with climate-related challenges.

**Conclusion:**

Mrs. Ngorn and Mrs. Sokhon's experience with the WICI scheme under the program demonstrates the positive impact of such a pilot initiative on smallholder farmers. By mitigating the risks associated with unpredictable weather conditions, the insurance coverage provided financial stability, improved planning, and enhanced resilience for Mrs. Ngorn and Mrs. Sokhon and their families.

## VI. Lessons learned and recommendations.

28. Several factors were critical to the successful achievement of GAP targets:
- i) The inclusion of specific gender targets and actions in the DMF of the program and the M&E framework ensure that the program staff and relevant individuals are aware of the requirement to generate gender results.
  - ii) The participatory implementation of the gender targets and actions by all stakeholders, such as the PMO, NIOs, PIOs, and consultants, increased the effectiveness and certainty of achieving gender results.
  - iii) The program had a good system in place to monitor and evaluate gender- disaggregated quantitative data and to capture and report on GAP implementation. It enormously helped project review missions to spot gaps in GAP implementation.
  - iv) The program management was supportive of GAP implementation. The project review missions regularly included a review of GAP implementation progress and provided recommendations. This was an important factor in achieving many of the GAP targets.
  - v) The understanding of the effect of gender equality and equity on the program benefits by the stakeholders and target beneficiaries; and orientation, training, and workshops on gender mainstreaming to relevant implementing agencies/service providers played a significant role in achieving the GAP targets.
29. **Sustainability.** The program invested in the development of human resources, especially female staff and women farmers who would continue beyond the program to work for or receive the services. The following elements help ensure the sustainability of the program gains:

- i) Female representation on the committees of community organizations such as FWUC, AC, and the construction subcommittee has benefited women by exposing them to leadership skills, related community organization and value chains work, and conflict resolution, and boosted their confidence for participating in other community activities. This has also helped in reducing gender inequality in their families and community as they worked with/alongside men.
- ii) Female farmers have learned, used and seen the benefits of agricultural technologies, and they now have the capacity to continue to apply these technologies in their households. Their confidence and empowerment will continue beyond the project's life.
- iii) Females involved as committee members, commune council members, and staff would be able to continue raising awareness among communities and provide technical support regularly and as needed to those interested in improving their livelihood.

30. **Recommendations** include:

- i) Gender indicators should be clear and simple.
- ii) Training on gender checklists from ADB guidelines should be regularly provided to program staff, including program managers, to ensure gender equality and women empowerment data and information are mainstreamed into the M&E.
- iii) The proposed targets and activities included in the DMF and the GAP should be reviewed and checked during the mid-term review mission to ensure consistency of the documents.
- iv) Close cooperation, collaboration, and coordination with local authorities are a must to increase women's participation.
- v) Sharing information on the direct and indirect benefits of the program with women in the community before the start of actual activity implementation is critical and influences their participation.
- vi) Regular capacity building and orientation on OP2 should be conducted for the relevant implementation offices.

**Table A9.1: Gender Action Plan Achievements Matrix**

<b>Project Title:</b>	Climate-Resilient Rice Commercialization Sector Development Program (Rice-SDP) and the Additional Financing Project <sup>33</sup>
<b>Country:</b>	Cambodia
<b>Project No.</b>	44321-013 and 44321-014
<b>Type of Project (Loan/ TA):</b>	Loans 3006/3007/8271 and Grants 0349/0350/0818.
<b>Effective and Closing:</b>	13 November 2013 – 30 September 2024
<b>Gender Category:</b>	Effective Gender Mainstreaming (EGM) <sup>34</sup>
<b>Program Director:</b>	H.E. Ros Seilava
<b>Project Officer:</b>	Mr. Hem Chanthou
<b>Program Impact:</b>	Increased net incomes of stakeholders along the rice value chain.
<b>Program Outcome:</b>	Enhanced production of quality rice in Cambodia while preserving the natural resource base.

- 1: Status of Gender Action Plan Achievements
- 2: Status of Compliance with the Project Design and Monitoring Framework (DMF)
- 3: Status of Compliance with Loan/Grant Covenants

<sup>33</sup> The project was implemented in three target provinces, Battambang, Kampong Thom and Prey Veng.

<sup>34</sup> Action: 19, Target: 23 (with 5 AF Targets), and DMF: 13 (2 AF DMF Targets). At program completion, all 19 GAP actions were completed; 22 of 23 GAP targets and 12 of 13 DMF gender performance indicators were achieved; and 1 GAP target (#18), which was also the same DMF performance indicator, was substantially achieved.

1) **Status of Gender Action Plan Achievements**

Activities, Indicators and Targets, Timeframe and Responsibility	Achievement at Program Completion	Status at Program Completion
<b>OUTPUT 1: A conducive legal and regulatory environment established to facilitate climate resilient rice commercialization</b>		
<p><b>Action 1.</b></p> <p>1.1. Ensure gender analyses and quantitative and qualitative data inform the development of all policies.</p> <p><b>Responsibility:</b> MEF/PMO, MAFF, MLMUPC, MIH</p>	<ul style="list-style-type: none"> <li>- Key policymakers were briefed on key gender issues in the agriculture sector, including relevant quantitative data during technical working group meetings, consultation meetings, and general meetings on the draft laws, regulations, and policies. Available information, including the findings from gender analysis during PPTA, project field gender monitoring reports, the ministries' Gender Mainstreaming Policies and Action Plans, and other available secondary data, were used to inform the policymakers.</li> <li>- Laws, draft laws, regulations and policies included gender concerns and analysis. Meetings and training were conducted to discuss it.</li> <li>- Review of the draft Law on Agricultural Land, Guidelines on Agricultural Land Use Zones, and the Gender Mainstreaming Strategy in Agriculture Sectors 2022-2025 were completed to enhance gender sensitization and inclusiveness by strengthening 1). Women's access to information on land administration, management and distribution; 2) women's equal participation and representation in all commissions and committees; and 3) equal benefits for women in land related initiatives as envisaged in the loan document.</li> </ul>	<b>Completed</b>
<p><b>Action 2.</b></p> <p>1.2. Ensure inclusion of gender expertise in each technical working group for policy development to address the needs of women farmers.</p> <p><b>Responsibility:</b> MAFF, MLMUPC, MIH, MEF/PMO</p>	<ul style="list-style-type: none"> <li>- The four (4) Technical Working Groups (TWGs) to work on 4 policy areas (24 policy conditions) included assigned Gender focal points to address the needs of women farmers. Capacity building activities were conducted to ensure that "the needs of women farmers are addressed". It was best achieved by a participatory approach which included a wide range of stakeholders.</li> <li>- PMO conducted 5 gender mainstreaming training programs covering 233 participants, of which 77 (33%) were females. It covered key policymakers, management team of each IA (NIOs</li> </ul>	<b>Completed</b>

Activities, Indicators and Targets, Timeframe and Responsibility	Achievement at Program Completion	Status at Program Completion
	<p>and PIOs), GFPs, M&amp;E Officers, ISSs, and relevant officers. The training aimed at enhancing knowledge of key gender concepts, GBV, strengthening capacity for analyzing gender issues and needs in the context of Rice-SDP, helping participants on ways to collect data and information for gender progress and contribute to GAP report, and helping them to integrate gender priorities into program interventions.</p> <ul style="list-style-type: none"> <li>- MAFF/NIO conducted 3 Provincial Dialogues on Rice Seed Business in three target provinces and gender mainstreaming was integrated into these dialogues/forums. A total 185 participants, including 54 women (29%) attended the forums. Both public and private sector officials participated in the forums.</li> <li>- MAFF/NIO conducted 10 gender inclusive trainings for staffs and beneficiaries of the Program on: intensive ToT on Gender Mainstreaming in Agriculture (Rice Seed Production) to better integrate and promote gender mainstreaming in sustainable rice production practices and helped them to continue disseminating gender learnings through farmers field schools (FFSs) in the target provinces, to enhance their knowledge on Gender related concepts, build gender sensitization on differences of gender and sex, equity and equality, gender roles and division of labor, gender needs, poverty discussion and empowerment and decision-making of women and low-income groups in agricultural extension and rice seed business. A total 357 participants, including 167 women (47%) participated in the training programs.</li> </ul>	
<p><b>Action 3.</b></p> <p>1.3. MLMUPC and Council for Land Policy (CLP) will issue the Land Policy “White Paper”, including a chapter on Land and Gender Policy, integrating gender issues in land administration, management and distribution. Gender issues will be subsequently mainstreamed into the Agricultural Land Policy and the</p>	<ul style="list-style-type: none"> <li>- Land Policy “White Paper”, including a chapter on Land and Gender Policy, integrating gender issues in land administration, management and distribution was reviewed, agreed, approved and issued on 28 August 2015 by Ministry of Land Management, Urban Planning and Construction (MLMUPC).</li> <li>- Law on the Management and Use of Agriculture Land (named as Law on Agricultural Land by MAFF) was reviewed by international and national gender specialists and gender focal persons of MAFF-NIO. The comments provided on the third draft (in March 2016) of Law was submitted to the General Directorate of Agriculture (GDA) of MAFF. MAFF has incorporated relevant</li> </ul>	<p><b>Completed</b></p>

Activities, Indicators and Targets, Timeframe and Responsibility	Achievement at Program Completion	Status at Program Completion
<p>Law on Management and Use of Agricultural Land.</p> <p><b>Responsibility:</b> MLMUPC, MAFF, MEF/PMO</p>	<p>comments to come up with a final draft Law (8<sup>th</sup> version). The national gender specialist reviewed the final draft law and provided comments to enhance gender sensitization and inclusiveness in the draft law. MAFF/NIO updated the draft Law on Agricultural Land incorporating the comments.</p>	
<p><b>Action 4.</b></p> <p>1.4. The Guideline for Establishing Agricultural Land-use Zones will incorporate measures for involving women in planning and decision making.</p> <p><b>Responsibility:</b> MAFF, MEF/PMO</p>	<ul style="list-style-type: none"> <li>- The guideline for establishing agricultural land-use zones was approved by the Director General, GDA of MAFF, and issued on 22 February 2019. The guideline includes a section on “Gender Equity and Social Inclusiveness”, which outlines the GMAP’s priority areas for gender mainstreaming in the agriculture sector and the need to ensure the participation of women, men, and indigenous and vulnerable people in the consultative process and in decision-making on the definition of cultivated areas from the social aspects and the appropriateness of cultivated areas in their communities.</li> <li>- The working group, including female representatives, established by the government to develop agricultural land-use zoning as a climate change adaptation strategy, developed and issued a framework providing procedures for establishing agricultural land-use zones, incorporating measures and targets for involving women in planning and decision making. A total of 889 (30%) female representatives of 2,933 commune committee members participated in the preparation and conducting of the commune agro-ecosystem analysis (CAEA), whereas a total of 930 (26%) women representatives of 3,540 total representatives participated in the consultation and approval of the commune land use plan (CLUP).</li> <li>- MLMUPC/NIO conducted workshops and training programs on preparation of CLUP and hotspot maps, and MAFF/NIO</li> </ul>	<p><b>Completed</b></p>

Activities, Indicators and Targets, Timeframe and Responsibility	Achievement at Program Completion	Status at Program Completion
	conducted meetings and training on CAEA. A total of 24,768 participants of which 11,592 (47%) were women participated in the capacity development activities.	
<p><b>Action 5.</b></p> <p>1.5. All above laws and legal documents will be adequately disseminated amongst male and female farmers.</p> <p><b>Responsibility:</b> MEF/PMO, MAFF, MLMUPC, MOWRAM and PIOs</p>	<ul style="list-style-type: none"> <li>- Relevant policies, regulations, laws and guidelines have been mainstreamed and disseminated through meetings, training, capacity building, sensitization, and awareness raising workshops conducted for the program interventions. A total of 193,412 females (52%) of 373,176 participants participated in the capacity building and dissemination activities.</li> </ul>	<b>Completed</b>
<b>OUTPUT 2: Agricultural land use zoning improved</b>		
<p><b>Target 1.</b></p> <p>2.1. Ensure the participation of women and women heads of households, in the collection of data and information relating to land-use zoning through use of women farmer focal group discussion meetings. In particular, 90 groups of farmers consulted (with at least 40% female representation) during the preparation of commune land use plans by 2015.</p> <p><b>Responsibility:</b> MAFF/PDA, MLMUPC /PDLMUPC</p>	<ul style="list-style-type: none"> <li>- At program completion, all the targeted 90 Commune Agro-Ecosystem Analysis (CAEA) have been conducted, and 90 Commune Land Use Plan (CLUP) have been prepared.</li> <li>- 90 groups of farmers consulted with at least 56% female (6,336 females out of 11,314 farmers) representation during the preparation of CLUPs.</li> <li>- In addition, <ul style="list-style-type: none"> <li>• 889 (30%) female members of total 2,933 Commune Committee Members participated in the preparation and conducting of the CAEAs.</li> <li>• 5,256 (39%) women of 13,454 participants participated in CAEA technical meetings and training.</li> <li>• 808 Commune Committee Members of which 133 (16%) women joined the consultation during preparation of CLUPS at the commune level.</li> <li>• 797 (29%) women of 2,732 participants participated in CLUP approval process at district, province and national levels.</li> </ul> </li> <li>- A total of 11,592 (47%) Females out of 24,768 participants participated in CAEA and CLUP preparation.</li> <li>- The total commune beneficiaries in the 90 target communes where CLUPs were implemented were 1,057,581 including 539,126 (51%) females and the household beneficiaries were 242,414 including 29,910 (12%) female headed households.</li> </ul>	<b>Achieved</b>

Activities, Indicators and Targets, Timeframe and Responsibility	Achievement at Program Completion	Status at Program Completion
<b>OUTPUT 3: Climate-resilient rice value chain infrastructure developed</b>		
<p><b>Target 2.</b></p> <p>3.1. Women will comprise 50% of the community membership of construction subcommittees.</p> <p><b>Responsibility:</b> MOWRAM/PDWRAM, PIOs</p>	<ul style="list-style-type: none"> <li>- At program completion, there were 113 females (55%) of a total of 204 community members in the construction subcommittees.</li> </ul>	<b>Achieved</b>
<p><b>Action 6.</b></p> <p>3.2. Separate women farmers' meetings will be held to discuss women's needs related to location, alignment and access to irrigation infrastructure.</p> <p><b>Responsibility:</b> MOWRAM/PDWRAM, PIOs</p>	<ul style="list-style-type: none"> <li>- The challenges and needs of women farmers were assessed through meetings regarding the location, alignment and access to irrigation subprojects. At program completion, a total of 100,095 farmer beneficiaries including 51,053 women (51%) got access to water through irrigation subprojects. In terms of household (HH) beneficiaries, 20,510 households including 2,862 (14%) female headed households got access to water through irrigation subprojects.</li> <li>- PIOs/PWDRAMs facilitated and conducted FWUC training with separate men and women farmer groups while discussing challenges in access to water. Gender awareness sessions were integrated into the workshops, meetings, forums, and field engagement activities, and the needs of women for water use for agricultural and household purposes were discussed in all irrigation subprojects.</li> <li>- MOWRAM/PDWRAM is continuing to empower the women representative of commune councils and FWUC management committee to participate in decision making of sub project's design and construction works to ensure the needs and issues of women and vulnerable groups are heard.</li> </ul>	<b>Completed</b>
<p><b>Action 7.</b></p>	<ul style="list-style-type: none"> <li>- The construction subcommittees and the commune councils participated in the feasibility studies and detailed design and signed off the final designs on infrastructure investments before submission to the MOWRAM for approval. Further changes to the</li> </ul>	<b>Completed</b>

Activities, Indicators and Targets, Timeframe and Responsibility	Achievement at Program Completion	Status at Program Completion
<p>3.3. Final designs on infrastructure investments will be signed off by construction subcommittees and the commune councils before submission to the government for approval. Further changes to the design must again be approved by the construction sub-committee.</p> <p><b>Responsibility:</b> MOWRAM/PDWRAM, PIOs</p>	<p>design or additional works were endorsed by the construction sub-committee and the commune councils before being approved by the MOWRAM.</p> <ul style="list-style-type: none"> <li>- The feasibility study, detailed design, and rehabilitation of 9 subprojects were fully completed by 31 March 2021. The construction subcommittees had 113 women (55%) members out of 204 members.</li> </ul>	
<p><b>Target 3.</b></p> <p>3.4. In labor-based civil works, 40% of unskilled laborers will be women. Women will receive equal pay for equal work. Child labor will not be employed. These conditions are to be included in all construction contracts.</p> <p><b>Responsibility:</b> MOWRAM/PDWRAM, MAFF/PDA, MEF/PMO, PIOs</p>	<ul style="list-style-type: none"> <li>- At program completion, there were 3,989 women (41%) out of 9,777 unskilled workers employed in the civil works construction. Among them, 3,259 women (40.4%) out of 8,057 unskilled workers employed in the rehabilitation of irrigation scheme, 361 women (42%) out of 854 unskilled workers employed in the construction of paddy drying and storage (PDS) facilities, 181 women (32%) out of 563 unskilled workers employed in the construction of seed processing and storage (SPS) facilities, 83 women (66%) out of 126 unskilled workers employed in the construction of 5 AC paddy storage houses and FWUC building, and 105 women (59%) out of 177 unskilled workers employed in the construction of 6 AC seed storage houses.</li> <li>- Rice SDP ensured that women employee/workers received equal pay for equal work and there was no issue like engagement of child labor reported. These conditions (equal pay for equal work and no engagement of child labor) were included in all construction contracts.</li> </ul>	<p><b>Achieved</b></p> <p><b>Strategy:</b></p> <ul style="list-style-type: none"> <li>- Good practice in gender mainstreaming maybe to adopt an enabling, rather than enforcement approach. If companies who are awarded PPP contracts, see gender targets as a burden rather than opportunity there maybe difficulties in meeting specified gender quotas and complete the subproject in time.</li> <li>- A good dissemination and preconstruction meeting would likely inform the community well and attract more female labor to access opportunity at the construction site.</li> </ul>
<p><b>Action 8.</b></p> <p>3.5. Employment opportunities targeted at men and women will be communicated to communities.</p>	<ul style="list-style-type: none"> <li>- Rice-SDP disseminated employment opportunity in the rehabilitation of irrigation sub-projects, land leveling, rice seed production, and construction of PDS and SPS facilities to the communities through local authorities and village meetings. Employment opportunities in the operation of PDS facilities and SPS facilities were disseminated by the rice millers and</li> </ul>	<p><b>Completed</b></p>

Activities, Indicators and Targets, Timeframe and Responsibility	Achievement at Program Completion	Status at Program Completion
<p><b>Responsibility:</b> MOWRAM/PDWRAM, MAFF/PDA, MEF/PMO, PIOs</p>	<p>MAFF/CARDI through notifications placed on gates of these facilities.</p> <ul style="list-style-type: none"> <li>- The program provided gender orientation and built gender awareness of the local authorities, construction contractors, owners of rice mills, and relevant stakeholders in the project target locations by paying more attention to the gender requirements of the program.</li> <li>- The program conducted awareness raising activities under pre-subproject launching activities to relevant stakeholders, local authorities and community where job opportunities for the communities including men and women were disseminated/informed. A message was sent to the community that women were strongly encouraged to apply/participate in the employment /labour opportunities at the sub-project sites.</li> <li>- As a result of dissemination activities, at program completion, a total of 38,494 skilled and unskilled laborers and operation staff, of which 20,323 (53%) were women, were directly employed in the rehabilitation of irrigation schemes, PDS &amp; SPS construction and operation, land leveling activities, AC storage houses and FWUC building construction, and seed production activities. Among the total, 19,826 were employed in the unskilled category, of which 10,640 (54%) were women, and 18,668 were employed in the skilled category, of which 9,683 (52%) were women.</li> </ul>	
<p><b>Target 4.</b></p> <p>3.6. Target of at least 30% employment of women as unskilled laborers in rice drying and warehousing facilities</p> <p><b>Responsibility:</b> MEF/PMO, MAFF/NIO, PIOs, Rice Millers</p>	<p>At program completion,</p> <ul style="list-style-type: none"> <li>- 365 women (33%) of 1,110 unskilled workers employed at PDS facilities located in Rice Mills.</li> <li>- 27 women (44%) of 61 unskilled workers employed at SPS facilities located in Agriculture Stations.</li> <li>- Thus, a total of 392 women (33%) of 1,171 unskilled workers employed at drying and warehousing facilities.</li> </ul>	<p><b>Achieved</b></p>

Activities, Indicators and Targets, Timeframe and Responsibility	Achievement at Program Completion	Status at Program Completion
	<ul style="list-style-type: none"> <li>- In terms of skilled and unskilled workers, a combined total of 499 women (34%) of 1,478 skilled and unskilled workers employed at the rice drying and warehousing facilities.</li> </ul>	
<p><b>Target 5.</b></p> <p>3.7. Target 50% women's employment as administrative staff in rice drying and storage facilities</p> <p><b>Responsibility:</b> MEF/PMO, MAFF/NIO, PIOs, Rice Millers</p>	<p>At program completion,</p> <ul style="list-style-type: none"> <li>- 75 women (52%) of 144 administrative staff employed at PDS facilities located in Rice Mills.</li> <li>- 13 women (56%) of 23 administrative staff employed at SPS facilities located in Agriculture Stations.</li> <li>- Thus, a total of 88 women (53%) of 167 administrative staff employed at drying and warehousing facilities.</li> </ul>	<b>Achieved</b>
<p><b>Target 6.</b></p> <p>3.8. Target 50% women employed in seed production facilities as unskilled and semi-skilled laborers, e.g. seed and seed-bed preparation, weeding and seed grading and sorting, packaging, etc.</p> <p><b>Responsibility:</b> MAFF/PDA, SPS facility Operators</p>	<ul style="list-style-type: none"> <li>- At program completion, under the seed production program, a total of 15,488 women (67%) of a total of 23,243 laborers were employed in the skilled and unskilled categories.</li> <li>- A total of 6,221 women (71%) of a total of 8,733 unskilled laborers and a total of 9,267 women (64%) of a total of 14,510 skilled laborers were employed in the seed production program.</li> </ul>	<b>Achieved</b>
<p><b>Target 7.</b></p> <p>3.9. Occupational safety measures and training provided to all workers</p> <p><b>Responsibility:</b> MOWRAM/PDRAM, MAFF/PDA, MEF/PMO, PIOs, Rice Millers, SPS facility Operators.</p>	<ul style="list-style-type: none"> <li>- At program completion, all training activities and field engagement of Rice- SDP program integrated health and safety measures for preventing COVID-19 and awareness generation on preventive measures. Face Masks, hand sanitizers, soap and drinking water facilities were made available at all training activities as well as at the construction sites.</li> <li>- A session on occupational safety awareness was integrated into market facilitation supports, farmer field schools (pre-during and post-harvest), and extension training programs provided to ACs,</li> </ul>	<b>Achieved</b>

Activities, Indicators and Targets, Timeframe and Responsibility	Achievement at Program Completion	Status at Program Completion
	<p>seed producer groups, and workers employed in infrastructure construction/rehabilitation.</p> <ul style="list-style-type: none"> <li>- Pre-construction awareness was provided to construction workers and a session on occupational safety and health care included in the Environmental Management Plan (EMP) implemented by the Civil Works contractors. The EMP implementation by the contractor was monitored on a quarterly basis by the PMO, NIOs and PIOs, and Environmental Monitoring Reports (EMRs) were submitted to ADB.</li> </ul>	
<p><b>Target 8.</b></p> <p>3.10. Farmer's Water User Committees (FWUCs) will accept membership registrations from husband and wife - 50% target for each</p> <p><b>Responsibility:</b> MOWRAM/PDWRAM, PIOs</p>	<ul style="list-style-type: none"> <li>- At program completion, all 9 FWUCs were established. There were 84,659 beneficiaries registered themselves as FWUC members and participated in trainings out of which 44,321 (52%) were female beneficiaries. In terms of households, 17,870 farming households became members of water user communities, of which 3,181 (18%) were female headed households.</li> </ul>	<p><b>Achieved</b></p>
<p><b>Target 9.</b></p> <p>3.11. Target at least 30% women in management positions in FWUCs. Women will be provided training on leadership and management and will be remunerated for their roles</p> <p><b>Responsibility:</b> MOWRAM/PDWRAM, PIOs</p>	<ul style="list-style-type: none"> <li>- At program completion, there were 106 women (48%) members of 223 management committee members in FWUCs. If the advisory committee was included, women representatives were 151 (49%) of 307 committee members.</li> <li>- At program completion, there were 32% (3,690) women of a total 11,698 participants attended FWUCs leadership and management training and exchange visits in the target provinces. Among them, 8,339 participants, including 3,241 (39%) women covered by PIOs capacity building activities and 3,359 participants, including 449 (13%) women, were covered by MOWRAM.</li> <li>- At program completion, 44,321 women (52%) of total 84,659 FWUC member were trained in group management and irrigation scheme operations and maintenance. The main training topics were: FWUC formation, RGCs' law, Sub-degree No.31, Construction sub-committee (CSC), Statute Sub-committee</li> </ul>	<p><b>Achieved</b></p>

Activities, Indicators and Targets, Timeframe and Responsibility	Achievement at Program Completion	Status at Program Completion
	(SSC), Financial Management/Accounting, Basic Administration, Repairs/Maintenance, and Conflict Resolution. Gender awareness was integrated in the training and workshop activities to build gender sensitivity regarding roles of women in the FWUC committee and to encourage women to participate in decision-making and sub-project activities.	
<p><b>Target 10.</b></p> <p>3.12. FWUC advisory committee will be established to monitor FWUC activities will comprise 50% women</p> <p><b>Responsibility:</b> MOWRAM/PDWRAM, PIOs</p>	<p>- At program completion, all 9 FWUC advisory committees were established to monitor FWUC activities. There were 45 women (54%) members out of 84 advisory committee members in the FWUCs.</p>	<p><b>Achieved</b></p>
<p><b>Action 9.</b></p> <p>3.13. Affected members dissatisfied with FWUC resolutions of disputes have the right to appeal to the FWUC advisory committee.</p> <p><b>Responsibility:</b> MOWRAM/PDWRAM, PIOs</p>	<p>- The needs of water and water management plans were prepared in accordance with the needs of the communities via the village and commune meetings with community, local authorities and officials of the PDoWRAM. All FWUCs were formed and functioned with elected Advisory and Management Committees. FWUCs conducted meetings and discussed issues and needs of water use from irrigation schemes.</p> <p>- The FWUC advisory committee had a procedure for disputes and appeals. All members of FWUC had the right to appeal to the FWUC committee. However, no report of any dispute or dissatisfaction among FWUC's members and community was reported.</p>	<p><b>Completed</b></p>
<p><b>Action 10.</b></p> <p>3.14. Water provision, where feasible, will include both irrigation and non-irrigation water needs of households</p> <p><b>Responsibility:</b> MOWRAM/PDWRAM, PIOs, FWUC</p>	<p>- The issues and needs of farmers accessing irrigation subprojects were discussed in the pre-construction meetings. Where locations allowed, men and women farmers' access to water for households and farming purposes were met.</p> <p>- The irrigation systems (PREK+IDSs+ Water Streams) allowed improved and more access to water for poultry and livestock raising and crop plantation thereby ensured livelihoods of the farmers. In the case of Kampong Thom, the irrigation systems improved ground water recharge in the villages and villagers got access to water from wells for home consumption.</p>	<p><b>Completed</b></p>

Activities, Indicators and Targets, Timeframe and Responsibility	Achievement at Program Completion	Status at Program Completion
	<p>- At program completion, 51,053 (51%) women of total 100,095 farmers benefitted from the improved irrigation and drainage services. In terms of households, 2,862 female headed households (14%) of total 20,510 households benefitted from the improved irrigation and drainage services.</p> <p>- At program completion, 8,257 (31%) women of a total of 26,320 farming households became members of production (agriculture cooperative) and/or water users associations (FWUC) members.</p>	
<p><b>Target AF1.</b></p> <p>3.15. At least 40% of AC committee members, 50% of whom are female, are trained in business plan development, report writing, general concepts of financial management and GBV awareness.</p> <p><b>Responsibility:</b> NIO and PIOs</p>	<p>- There were 144 ACs in the target communes with a cumulative total of 1,218 AC committee members, including 624 (51%) female members.</p> <p>- At program completion,</p> <ul style="list-style-type: none"> <li>• 841 AC committee members (F = 452, 54%) were trained in business plan development and report writing. Thus, 69% of AC committee members were trained in this activity.</li> <li>• 1,117 AC committee members (F = 584, 52%) were trained in general concepts of financial management/access to finance/reduction in financing cost. Thus, 92% of AC committee members were trained in this activity.</li> <li>• 799 AC committee members (F = 445, 56%) were trained in GBV. Thus, 66% of AC committee members were trained in this activity.</li> </ul> <p>- In addition, 703 AC committee members including 414 women (59%) members participated in paddy market facilitation and seed business forum. Thus, 58% of AC committee members were trained in this activity.</p>	<p><b>Achieved</b></p>
<p><b>Target AF2.</b></p> <p>3.16. 500 days of training to raise agricultural productivity provided to farmers and community members</p>	<p>At program completion,</p> <p>- 1,522 man-days of trainings were provided to 72,160 farmers and community members, including 38,692 (54%) females, to raise agricultural productivity under the AF project. Including other</p>	<p><b>Achieved</b></p>

Activities, Indicators and Targets, Timeframe and Responsibility	Achievement at Program Completion	Status at Program Completion
<p>(50% of participants are women) – DMF 3e</p> <p><b>Responsibility:</b> NIO and PIOs</p>	<p>stakeholders, a total of 74,370 participants, including 39,393 (53%) females, received the training.</p> <ul style="list-style-type: none"> <li>- 12,470 man-days of trainings were provided to 279,960 farmers and community members, including 149,472 (53%) females, to raise agricultural productivity under the original project. Including other stakeholders, a total of 298,806 participants, including 154,019 (52%) females, received the training.</li> <li>- In total, 13,992 man-days of trainings were provided to 352,120 farmers and community members, including 188,164 (53%) females, to raise agricultural productivity under the original project. Including other stakeholders, a total of 373,176 participants, including 193,412 (52%) females, received the training.</li> </ul>	
<b>OUTPUT 4: Enhanced rice value chain support services for quality improvement</b>		
<p><b>Target 11.</b></p> <p>4.1. Target at least 30% women in management positions in farmer cooperatives</p> <p><b>Responsibility:</b> MAFF/PDA, PIOs</p>	<ul style="list-style-type: none"> <li>- At program completion, there were 441 (51%) women of a total of 873 members in management committee of agriculture cooperatives (ACs).</li> <li>- A total of 8,450 farmers were ACs members of which 5,076 were women (60%).</li> </ul>	<b>Achieved</b>
<p><b>Action 11.</b></p> <p>4.2. Women will be provided training on leadership and management</p> <p><b>Responsibility:</b> MAFF/PDA, PIOs</p>	<ul style="list-style-type: none"> <li>- At program completion, 166 AC capacity building activities on various topics such as business plan preparation, business development, report writing including annual report, preparation and publish of the statutes and internal regulations of ACs, management and leadership were provided to 2,582 women (33%) out of total 7,851 AC beneficiaries.</li> <li>- Gender focal persons and technical staff from NIO and PIOs, especially those who were engaged at the field level with farmer groups, strongly paid attention to ensuring gender-impacted results through mainstreaming gender awareness and capacity into various agricultural training, meetings, forums, and workshops on various topics of gender concepts (differences of gender and sex, gender roles, and gender division of labor). Time, venue, and gender ratio were pre-assessed to allow more</li> </ul>	<b>Completed</b>

Activities, Indicators and Targets, Timeframe and Responsibility	Achievement at Program Completion	Status at Program Completion
	women's participation and applied to every training activity of Rice-SDP.	
<p><b>Target 12.</b></p> <p>4.3. Farmers' cooperatives will accept membership registrations from husband and wife. Membership targets are 50% for male and female</p> <p><b>Responsibility:</b> MAFF/PDA, PIOs</p>	<p>- At program completion, there were 5,076 women (60%) of total 8,450 farmers and households registered as member of ACs including 1,501 (18%) female headed households.</p>	<b>Achieved</b>
<p><b>Target 13.</b></p> <p>4.4. Women will comprise 50% of participants in all projects supported training in extension and water management</p> <p><b>Responsibility:</b> MAFF/PDA, MOWRAM/PDRAM, PIOs</p>	<p>- At program completion, a total of 193,412 (52%) females of 373,176 participants received training in extension and water management. Among them, 298,806 participants, including 154,019 (52%) females, received training under the original project and 74,370 participants, including 39,393 (53%) females, received training under the AF project. Specifically,</p> <ul style="list-style-type: none"> <li>- 44,321 women (52%) of total 84,659 beneficiaries registered as member of FWUC received training on group management and operation and maintenance of irrigation scheme.</li> <li>- 86,620 (55%) women of total 157,996 farmers received 3,679 agricultural extension capacity building activities.</li> <li>- 154,819 (51%) women of total 304,861 farmers received training on land leveling.</li> </ul>	<b>Achieved</b>
<p><b>Action 12.</b></p> <p>4.5. Agricultural extension training materials and revision of "technology implementation procedures" will include specific training needs identified by women farmers on enhancing productivity, diversification of produce (including knowledge related to crops other than rice which require less water supply to increase crop returns for women farmers on marginal land), animal husbandry and</p>	<ul style="list-style-type: none"> <li>- Before delivering the agricultural extension training, gender focal points and technical staff conducted field work to discuss the specific need of women and men on the agricultural extensions. The discussion on gender issues in agricultural production and value chain including the procedures of rice/crop productivity were addressed and discussed to understand the needs of farmers, especially the needs of women, female headed HH and marginal groups in the target project locations. The content of the training was designed based on the results of agricultural extension needs assessment, tailored to address their specific needs.</li> <li>- Learning materials and concept notes of agricultural activities were reviewed for gender considerations, and they were</li> </ul>	<b>Completed</b>

Activities, Indicators and Targets, Timeframe and Responsibility	Achievement at Program Completion	Status at Program Completion
<p>safety procedures and new income generating activities  <b>Responsibility:</b> MAFF/PDA, PIOs.</p>	<p>improved from gender perspectives to address gender practical and strategic needs of community beneficiaries. The existing TIPs were updated, and new TIPs were developed based on the problems identified in the CAEAs. At program completion, 10,620 booklets of 8 TIPs were printed and disseminated.</p> <ul style="list-style-type: none"> <li>- At program completion, all 90 targeted CAEAs have been conducted with the participation of 13,454 community members, local authorities, village elders, etc. including 5,256 women (39%).</li> <li>- Gender awareness session and gender mainstreaming were integrated and highlighted to address gender norms and stereotypes regarding women's roles in seed production, sustainable rice production and rice planting throughout 298 FFSs. A total of 15,775 participants, of which 9,550 (61%) women, participated in the trainings.</li> <li>- The program conducted 3 Provincial Dialogues on Rice Seed Business in three target provinces and gender mainstreaming was integrated into these forums. There were 54 women (29%) of a total 185 participants attended the forums. The local government officials and private sector participated in these workshops.</li> <li>- The program conducted 10 gender inclusive ToT trainings for staffs and beneficiaries on gender mainstreaming in agriculture, especially rice seed production, to better integrate and promote gender mainstreaming in sustainable rice production practices and helped them to continue disseminating gender learnings through FFSs in the target provinces, to enhance their knowledge on gender related concepts, build gender sensitization on differences of gender and sex, equity and equality, gender roles and division of labor, gender needs, poverty discussion, and empowerment and decision-making of women and low-income groups in agricultural extension and rice seed business. There were 167 women (47%) of total 357 participants attended the training programs.</li> <li>- In total, 193,412 (52%) women of a total of 373,176 participants participated in the capacity building activities under the program.</li> </ul>	

Activities, Indicators and Targets, Timeframe and Responsibility	Achievement at Program Completion	Status at Program Completion
<p><b>Target 14.</b></p> <p>4.6. Some 50% of farmers in pilot on-farm trials and demonstrations will be women</p> <p><b>Responsibility:</b> MAFF/PDA, PIOs</p>	<p>At program completion,</p> <ul style="list-style-type: none"> <li>- 9,550 (61%) women of total 15,775 farmers attended Farmer Fields Schools, pilot on-farm trials and demonstrations.</li> <li>- 23,966 (58%) women farmers of total 41,461 farmers attended post-harvest technology capacity building activities.</li> <li>- 154,819 (51%) women farmers of total 304,861 famers improved their knowledge and capacity and adopted land leveling technology.</li> </ul>	<p><b>Achieved</b></p>
<p><b>Action 13.</b></p> <p>4.7. Extension training schedules will ensure that location and timing of delivery are convenient for women</p> <p><b>Responsibility:</b> MAFF/PDA, PIOs</p>	<ul style="list-style-type: none"> <li>- At program completion, the contents, schedules and venues of the extension training were assessed at every subproject site to learn the variability of timing, appropriateness of venue, and methodology of training to allow more participation of women farmers in the training especially women farmers who have less access to or none before due to variety of household chores and livelihood support activities. The pre-training assessments were conducted by the project extension staff and specialists and follow-up field visits were made to check and further provide technical guidance to the community and individual households.</li> <li>- Gender Checklist forms were developed for NIOs and PIOs to support field staffs/officers ask gender related questions and for addressing barriers faced by women especially for addressing women's traditional roles which were restricting their participations in the training and other program activities.</li> </ul>	<p><b>Completed</b></p>
<p><b>Action 14.</b></p> <p>4.8. Training materials will be designed to meet the needs of female and male farmers, including illiterate farmers</p> <p><b>Responsibility:</b> MAFF/PDA, MEF/PMO, PIOs.</p>	<ul style="list-style-type: none"> <li>- At program completion, 10,620 booklets of 8 TIPs were printed and disseminated to help readers, especially farmers in accessing more information related to agricultural extension and technologies.</li> <li>- 65,000 WICI booklets (comic books) developed and distributed to farmers through PIOs, MFIs, seed merchants, fertilizer merchants, pesticide merchants and other agricultural input merchants. The booklet was designed to rely more on pictures to explain disasters and crop insurance.</li> </ul>	<p><b>Completed</b></p> <p><b>Strategy:</b></p> <ul style="list-style-type: none"> <li>- Illustration and visual tools were printed and used as guiding tools to provoke discussion during capacity building activities, especially to help women and participants to speak up during discussion.</li> </ul>

Activities, Indicators and Targets, Timeframe and Responsibility	Achievement at Program Completion	Status at Program Completion
	<ul style="list-style-type: none"> <li>- Materials and concept note integrated gender considerations and gender sensitive methodology to address gender barrier for participation of illiterate male and female farmers and underrepresented groups via training, forum, meeting and field engagement activities. Training materials carried more pictorial descriptions and experience sharing between farmers to farmers and were designed to meet the needs of female and male farmers, including illiterate farmers and elderly groups. For instance, in the Farmer Field School, there were illustrations to show pre and during harvesting process, including field demonstration, and farmers practiced in the field i.e. a practical learning approach was adopted instead of classroom lecture method as majority of farmers were illiterate.</li> <li>- The concept notes, contents and methodologies of gender integration in agricultural training prepared by the gender focal persons were reviewed and revised by the gender specialist. Training was delivered to gender focal persons, agricultural extension officers, and technical field officers in three provinces to build their confidence to continue applying gender knowledge into their works especially for proposing gender sensitive methods to work with both men and women farmers.</li> </ul>	
<p><b>Target 15.</b></p> <p>4.9. Some 25% of agricultural extension workers trained shall be women (proportionate to actual numbers of female extension workers)</p> <p><b>Responsibility:</b> MAFF/PDA, PIOs.</p>	<ul style="list-style-type: none"> <li>- At program completion, 461 female staff (25%) of total 1,838 staffs benefited from 58 agricultural extensions training programs including one gender training program. The training programs covered different agricultural extension topics such as commune agro-ecosystem, seed production, soil mapping, farming system, agriculture machinery, drying and storage, post-harvest technology and WICL.</li> </ul>	<b>Achieved</b>
<p><b>Action 15.</b></p> <p>4.10. Mass media extension materials to be gender sensitive and designed to motivate smallholder women farmers to access certified seed, new production technologies, including land leveling, drying and storage facilities, pilot insurance scheme and potential new markets</p>	<ul style="list-style-type: none"> <li>- At program completion, the tips for writing success stories and case study were developed and oriented as part of gender training and mentoring to NIOs and PIOs specialists and staff. Practical hands-on training on writing gender case studies of FWUC and farmers were provided in Prey Veng, Kampong Thom and Battambang. Gender case studies were drafted to capture the impacts and changed farming skills, market support and livelihood of farmers. These gender stories were disseminated as part of learning materials under Rice-SDP.</li> </ul>	<b>Completed</b>

Activities, Indicators and Targets, Timeframe and Responsibility	Achievement at Program Completion	Status at Program Completion
<p><b>Responsibility:</b> MEF/PMO, MAFF/PDAs, PIOs.</p>	<ul style="list-style-type: none"> <li>- As of date, the information related to program activities was disseminated through the Facebook Page and Official website of Rice-SDP. These included promoting role of women in the rice seed business and agricultural extension activities, piloting on farm demonstration of post-harvest, land leveling and the access to irrigation scheme and works (<a href="http://www.ricesdp.org/">http://www.ricesdp.org/</a>; <a href="https://www.facebook.com/pg/www.ricesdp.org/videos/?ref=page_internal">https://www.facebook.com/pg/www.ricesdp.org/videos/?ref=page_internal</a>)</li> <li>- The program implemented a pilot insurance scheme, WICI. 65,000 WICI booklets (comic books) developed and distributed to farmers through PIOs, MFIs, seed merchants, fertilizer merchants, pesticide merchants and other agricultural input merchants. The booklet was designed to rely more on pictures to explain the disasters and crop insurance for awareness building and kept in sight gender sensitivity of the materials and needs of smallholder women farmers.</li> <li>- The program developed 8 TIPs (Technical Information Package) such as Rice Production in wet season, Rice Production in early wet season, Rice Production in dry season, Rice Seed Production, Insect Pest and Diseases on Rice, Laser Land Levelling, Rice Post Harvest Technology, and Agro-ecosystem Analysis Manual and printed 10,620 booklets and disseminated.</li> <li>- The program produced 3 videos (covering all Rice-SDP activities) and disseminated through meetings, training, forums and workshops. The story and tools included gender mainstreaming activities to empower women and designed to motivate smallholder women farmers to access certified seed, new production technologies, including land leveling, drying and storage facilities, pilot insurance scheme and potential new markets.</li> </ul>	
<p><b>Action 16.</b> 4.11. Address lack of access to credit by women and poor farmers</p>	<ul style="list-style-type: none"> <li>- The program provided financial management training to the AC Management Committee and farmers to improve their financial recording systems and assisted them to access formal finance to enlarge scope of their operations. The program supported women</li> </ul>	<p><b>Completed</b></p>

Activities, Indicators and Targets, Timeframe and Responsibility	Achievement at Program Completion	Status at Program Completion
<p>through (i) enhancing knowledge on requirements of microfinance institutions (MFIs) and banks; and (ii) innovative financial products to ease “traditional” collateral requirements</p> <p><b>Responsibility:</b> MAFF/PDA, PIOs</p>	<p>and poor farmers learn about microfinance, particularly on loan and risk management, and business planning.</p> <ul style="list-style-type: none"> <li>- The program conducted 86 market facilitation/business matching activities for 144 ACs with the participation of 5,006 participants, including 2,032 (41%) females. The market facilitation activities brought stakeholders of rice value chains such as exporters, rice millers, ACs, input suppliers, MFIs, banks, competent government agencies, and ARDB to one platform and strengthened the value chains. The workshops covered ACs-rice millers credit accessibility for rice seed/ paddy production, ACs-rice millers contract farming arrangement for rice seed/ paddy production, and loan management and easy collateral procedures for advancing capital investment under the loan scheme.</li> <li>- The program implemented Rice Millers Capacity Development (RMCD) through a service provider and conducted <ul style="list-style-type: none"> <li>• workshops on “Financial Access of Farmers for Rice Production”. A total of 190 participants including 16 females (8%) participated in these workshops.</li> <li>• workshops to identify and provide financial and technical management capacity building activities to 34 rice millers including 3 females (9%).</li> <li>• trainings to 124 staff of financial institutions including 4 females (3%) on the needs of farmers wishing to diversify their livelihood sources.</li> <li>• trainings to 1,249 farmers including 566 females (45%) on requirements of financial institutions for gaining access to credit.</li> </ul> </li> <li>- In addition, at program completion, the program trained 5,309 farmers (F = 2,717, 51%) were on financial management, business plan development, access to finance and reduction in financing cost.</li> </ul>	

Activities, Indicators and Targets, Timeframe and Responsibility	Achievement at Program Completion	Status at Program Completion
<p><b>Target AF3.</b></p> <p>4.12. At least 40% of AC committee members, 50% of whom are female, received training on access to finance.</p> <p><b>Responsibility:</b> PIOs</p>	<p>- At program completion, 1,117 AC committee members including 584 women (52%) received training on Financial Management/Access to Finance/Reduction in Financing Cost. The percentage of total AC Committee Members trained is 92%.</p>	<p><b>Achieved</b></p>
<p><b>Target AF4.</b></p> <p>4.13. Of the AC committee members that participate in paddy rice market facilitation activities and seed business forum, 50% are women.</p> <p><b>Responsibility:</b> PIOs and MAFF/NIO</p>	<p>- At program completion, 703 AC committee members including 414 women (59%) members participated in paddy market facilitation and seed business forum. The percentage of total AC committee members who participated is 58%.</p> <p>- The market facilitation programs covered 144 ACs.</p>	<p><b>Achieved</b></p>
<p><b>OUTPUT 5: Weather-indexed crop insurance (WICI) piloted</b></p>		
<p><b>Target 16.</b></p> <p>5.1. Some 50% of farmers under the pilot insurance scheme will be women</p> <p><b>Responsibility:</b> MEF/PMO and PIOs.</p>	<p>At program completion,</p> <ul style="list-style-type: none"> <li>- 133,198 farmer households including 71,156 (53%) female households covered under the WICI scheme (2021= 675/336; 2022= 1,620/797; 2023= 54,800/28,336; and 2024= 76,103/41,687) covering 160,376 hectares.</li> <li>- 60,226 (53%) women farmers of total 112,827 farmers attended WICI awareness raising and sensitization training conducted by the program.</li> <li>- 485 (35%) women of total 1,403 participants who were provincial officers, Insurance regulator office, insurance companies, Meteorological and Weather Data Agencies, Agricultural Research Institutes, MFIs, Agricultural Input Suppliers, Govt. agencies, and others attended capacity building activities under WICI scheme.</li> <li>- WICI Training Booklet (in Comic Book form) and Training Posters were developed in Khmer to assist the Trainers. 65,000 Booklets</li> </ul>	<p><b>Achieved</b></p>

Activities, Indicators and Targets, Timeframe and Responsibility	Achievement at Program Completion	Status at Program Completion
	printed and distributed to farmers through PIOs, MFIs, seed merchants, fertilizer merchants, pesticide merchants and other agricultural input merchants. The booklet was designed to rely more on pictures to explain the disasters and crop insurance for awareness building.	
<p><b>Target AF5.</b></p> <p>5.1. 20,000 ha of rice production areas covered by WICI by 2023 (50% of the policy holders are women (DMF 5c)</p> <p><b>Responsibility:</b> MEF/PMO and PIOs</p>	<p>- At program completion, 160,376 hectares covered under WICI scheme (2021= 887ha; 2022= 2,424 ha; 2023= 80,962 ha; and 2024= 76,103 ha) and a total of 133,198 farmer households including 71,156 (53%) female households covered under the WICI scheme (2021= 675/336; 2022= 1,620/797; 2023= 54,800/28,336; and 2024= 76,103/41,687).</p>	<b>Achieved</b>
<b>OUTPUT 6: Efficient program management and implementation</b>		
<p><b>Action 17.</b></p> <p>6.1. One international and one national gender and community development specialist recruited to support the Program Management Office (PMO) and Provincial Implementation Offices (PIOs).</p> <p><b>Responsibility:</b> MEF/PMO, NIOs, PIOs</p>	<p>- One international and one national Gender and Social Safeguard Specialist commenced working with the project in July and August 2016 respectively. They were mobilized to support GFPs across the program. After the closure of the firm's (PIC) contract in May 2017, a new national Gender Specialist was recruited and mobilized in March 2018 whose contract ended on 30 September 2021. At the beginning of the project extension due to the AF project, a new national Gender Specialist was recruited and mobilized in June 2022. The new specialist resigned in August 2023 after availing a better career opportunity.</p>	<b>Completed</b>
<p><b>Action 18.</b></p> <p>6.2. Ensure sex-disaggregated performance monitoring system is established and operational.</p> <p><b>Responsibility:</b> MEF/PMO, NIOs, PIOs</p>	<p>- The program performance monitoring system was fully established and operational in Q1 2018 and recorded the sex-disaggregated data. Gender Specialist and GFPs worked closely with M &amp; E specialists and Officers to ensure gender-segregated data were collected.</p> <p>- Gender Checklists and questions were developed and updated based on the feedback of IAs and followed by all NIOs and PIOs to report their specific interventions.</p> <p>- MEF/PMO ensured that gender weak indicators were brought up for discussion during the Project Coordination Meeting, and</p>	<b>Completed</b>

Activities, Indicators and Targets, Timeframe and Responsibility	Achievement at Program Completion	Status at Program Completion
	gender and M&E training were provided to seek special attentions from NIOs and PIOs.	
<p><b>Target 17.</b></p> <p>6.3. All PMO, NIOs and PIOs staff shall be provided with gender training and roles and responsibility training on implementing the Gender Action Plan (GAP).</p> <p><b>Responsibility:</b> MEF/PMO, PIOs, GSSs</p>	<ul style="list-style-type: none"> <li>- At program completion, 77 (33%) women officials and specialists out of 233 staffs attended gender training on gender orientation and awareness, gender mainstreaming, gender inclusive M &amp; E, and identification of gender impacts in Rice-SDP (see the table below).</li> <li>- In 2016, a program-wide discussion on the Gender Action Plan was conducted, with specific discussion for the Ministry of Land Management, Urban Planning and Construction on Output 2, which is “Agricultural land-use zoning improved”.</li> <li>- 6 specific gender checklists were identified, re-visited and used to provide update on gender context and report gender segregated data by project components by the GFPs, NIOs, and PIOs. These checklists were for Infrastructure and Construction (irrigation rehabilitation, rice mill and drying store construction); FWUC, Leadership and Management Training; Employment in Rice Mills, Rice Drying Storage Facilities, and Seed Production Facilities; Farmer’s Cooperative/Farmer Field Schools; Agriculture Extension Training and TOT Training, Training Materials, and Mass Media; and a Pilot Insurance Scheme.</li> <li>- GAP in English and Khmer versions were widely distributed. Follow-up of the GAP progress and the training on the use of gender checklists as guidelines for GAP implementation was provided to GFPs and other relevant program staff.</li> <li>- Rice-SDP annual work plan and budget (AWPB) meetings discussed and included GAP as one priority area for implementation.</li> <li>- The questionnaire on Gender Training Needs Assessment (GTNA) was developed and gender knowledge, skills and practices among the staffs of the program were assessed.</li> </ul>	<p><b>Achieved</b></p>

Activities, Indicators and Targets, Timeframe and Responsibility	Achievement at Program Completion	Status at Program Completion
	<ul style="list-style-type: none"> <li>- MAFF/NIO conducted a refresher ToT training on Gender Mainstreaming in Agriculture for 29 key trainers, including 12 females (41%) at Battambang for five days from 19-23 March 2018.</li> <li>- A GAP orientation was conducted during the M &amp; E training workshop in June 2018. During the drafting of gender progress report, missing data and Targets and Actions to be achieved, were generally discussed with the GFPs and project manager of NIOs to ensure that implementation of gender mainstreaming activities and collection of gender segregated data was done properly.</li> <li>- The four (4) Technical Working Groups (TWGs) to work on 12 policy conditions included assigned Gender focal points to address the needs of women farmers. Capacity building activities were conducted to ensure that “the needs of women farmers are addressed”.</li> <li>- MAFF/NIO conducted 3 Provincial Dialogues on Rice Seed Business in three target provinces and gender mainstreaming was integrated into these forums. A total 185 participants, including 54 women (29%) attended the forums. Both public and private sector officials participated in the forums.</li> <li>- MAFF/NIO conducted 10 gender inclusive trainings for staffs and beneficiaries of the Program on: intensive ToT on Gender Mainstreaming in Agriculture (Rice Seed Production) to better integrate and promote gender mainstreaming in sustainable rice production practices and helped them to continue disseminating gender learnings through farmers field schools (FFSs) in the target provinces, to enhance their knowledge on Gender related concepts, build gender sensitization on differences of gender and sex, equity and equality, gender roles and division of labor, gender needs, poverty discussion and empowerment and decision-making of women and low-income groups in agricultural extension and rice seed business. A total 357 participants, including 167 women (47%) participated in the training programs.</li> </ul>	

Activities, Indicators and Targets, Timeframe and Responsibility	Achievement at Program Completion	Status at Program Completion																				
	<ul style="list-style-type: none"> <li>- MLMUPC/NIO conducted workshops and training programs on preparation of CLUP and hotspot maps, and MAFF/NIO conducted meetings and training on CAEA. A total of 24,768 participants of which 11,592 (47%) were women participated in the capacity development activities.</li> <li>- The Gender Action Plan was orientated to GFPs and officials of NIOs and PIOs via Gender and M &amp; E training. GAP analysis was conducted through exercises on strengths and weaknesses of the participants, and good and limited progress in gender indicators were identified and discussed among project implementers through gender training. These led to identification of gender proposed interventions by each NIOs and PIOs and corresponding significant progress in gender indicator accomplishments.</li> </ul>																					
	<table border="1"> <thead> <tr> <th>Date</th> <th>Name of gender Trainings</th> <th>Total participant</th> <th># of female participant</th> <th>% of female participant</th> </tr> </thead> <tbody> <tr> <td>07/Nov/2018</td> <td>First Training on Gender and M &amp; E (Gender Concept and Analysis)</td> <td>50</td> <td>16</td> <td>32%</td> </tr> <tr> <td>13/Dec/2018</td> <td>Second Training on Gender &amp; M &amp; E (Gender Mainstreaming and GAP Analysis in Planning)</td> <td>47</td> <td>17</td> <td>36%</td> </tr> <tr> <td>26/June/2019</td> <td>Third Training on Gender &amp; M &amp; E (GAP Monitoring and Tip for writing case study)</td> <td>60</td> <td>19</td> <td>32%</td> </tr> </tbody> </table>	Date	Name of gender Trainings	Total participant	# of female participant	% of female participant	07/Nov/2018	First Training on Gender and M & E (Gender Concept and Analysis)	50	16	32%	13/Dec/2018	Second Training on Gender & M & E (Gender Mainstreaming and GAP Analysis in Planning)	47	17	36%	26/June/2019	Third Training on Gender & M & E (GAP Monitoring and Tip for writing case study)	60	19	32%	
Date	Name of gender Trainings	Total participant	# of female participant	% of female participant																		
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Activities, Indicators and Targets, Timeframe and Responsibility	Achievement at Program Completion					Status at Program Completion										
	18/Dec/2019	Fourth Training on Gender (Capacity Building Training on Identification of Gender Impacts in Rice-SDP)	35	12	34%											
	18/May/2023	Refresher training on gender and M&E	41	13	32%											
	<b>Sub-total</b>		<b>233</b>	<b>77</b>	<b>33%</b>											
	21- 22 June 2020	2 Trainings on Gender and Climate Resilience in Agriculture in Prey Veng Province	158	44	28%											
	26-28 May 2020	3 Trainings on Gender and Climate Resilience in Agriculture- Target Village levels to 42 villages delivered in Battambang Province	123	47	38%											
	26-27 June 2020.	Integrate Gender Awareness in Training to Agricultural Input Suppliers at Baray district of Kampong Thom Province.	67	14	21%											
	<b>Total</b>		<b>581</b>	<b>182</b>	<b>31.3%</b>											
<p><b>Target 18.</b></p> <p>6.4. About 30% of administrative and technical positions shall be filled by</p>	<p>- At program completion, there were 46 female staffs (22%) of total 212 Administrative and Technical Staffs for PMO, NIOs and PIOs under the Rice-SDP.</p> <table border="1"> <thead> <tr> <th></th> <th>Agencies</th> <th></th> <th></th> <th>% FEMALE</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>						Agencies			% FEMALE						<b>Substantially Achieved</b>
	Agencies			% FEMALE												

Activities, Indicators and Targets, Timeframe and Responsibility	Achievement at Program Completion					Status at Program Completion																																													
<p>women by Q2-2013 in PMO, NIOs and PIOs.</p> <p><b>Responsibility:</b> MEF/PMO, NIOs, PIOs and GSSs</p>	<table border="1"> <thead> <tr> <th>No</th> <th></th> <th>TOTAL</th> <th>FEMALE</th> <th></th> </tr> </thead> <tbody> <tr> <td>1</td> <td>MEF/PMO</td> <td>32</td> <td>8</td> <td>25</td> </tr> <tr> <td>2</td> <td>MAFF/NIO</td> <td>23</td> <td>6</td> <td>26</td> </tr> <tr> <td>3</td> <td>MOWRAM/NIO</td> <td>45</td> <td>9</td> <td>20</td> </tr> <tr> <td>4</td> <td>MLMUPC/NIO</td> <td>17</td> <td>3</td> <td>18</td> </tr> <tr> <td>5</td> <td>Battambang/PIO</td> <td>27</td> <td>6</td> <td>22</td> </tr> <tr> <td>6</td> <td>Kampong Thom/PIO</td> <td>36</td> <td>6</td> <td>17</td> </tr> <tr> <td>7</td> <td>Prey Veng/PIO</td> <td>32</td> <td>8</td> <td>25</td> </tr> <tr> <td colspan="2"><b>Total</b></td> <td><b>212</b></td> <td><b>46</b></td> <td><b>22</b></td> </tr> </tbody> </table>	No		TOTAL	FEMALE		1	MEF/PMO	32	8	25	2	MAFF/NIO	23	6	26	3	MOWRAM/NIO	45	9	20	4	MLMUPC/NIO	17	3	18	5	Battambang/PIO	27	6	22	6	Kampong Thom/PIO	36	6	17	7	Prey Veng/PIO	32	8	25	<b>Total</b>		<b>212</b>	<b>46</b>	<b>22</b>					
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<p><b>Action 19.</b></p> <p>6.5. Ensure participatory evaluations are conducted with male and female farmer groups at mid-term and end of the project reviews</p> <p><b>Responsibility:</b> MEF/PMO and ADB</p>	<ul style="list-style-type: none"> <li>- Baseline survey and endline survey conducted separate FGDs with male and female farmer groups. Household level interviews included the pro-rata representation of households headed by women.</li> <li>- Gender milestones and gender disaggregated data of the Program were collected, reviewed and monitored regularly through a comprehensive M &amp; E system and quarterly progress reports. Participatory evaluations through progress monitoring reports were conducted which included separate interviews with women groups.</li> <li>- Gender case studies were drafted to capture the impacts and changed farming skills, market support and livelihood of farmers. These gender stories were disseminated as part of learning materials under Rice SDP.</li> </ul>					<p><b>Completed</b></p>																																													

**2. Status of Compliance with Design and Monitoring Framework (Status of gender indicators in the DMF)**

Design Summary	Performance Targets and Indicators with Baseline (these gender targets are included in the Project DMF)	Achievements at Program Completion
<p><b>OUTPUT 2: Agricultural land use zoning improved</b></p>	<ul style="list-style-type: none"> <li>- 90 groups of farmers consulted (with at least 40% female representation) during the preparation of CLUPs by 2021</li> </ul>	<p><b>Achieved.</b></p> <ul style="list-style-type: none"> <li>- At program completion, all the targeted 90 Commune Agro-Ecosystem Analysis (CAEA) have been conducted, and 90 Commune Land Use Plan (CLUP) have been prepared.</li> <li>- 90 groups of farmers consulted with at least 56% female (6,336 females out of 11,314 farmers) representation during the preparation of CLUPs.</li> <li>- In addition, <ul style="list-style-type: none"> <li>• 889 (30%) female members of total 2,933 Commune Committee Members participated in the preparation and conducting of the CAEAs.</li> <li>• 5,256 (39%) women of 13,454 participants participated in CAEA technical meetings and training.</li> <li>• 808 Commune Committee Members of which 133 (16%) women joined the consultation during preparation of CLUPS at the commune level.</li> <li>• 797 (29%) women of 2,732 participants participated in CLUP approval process at district, province and national levels.</li> </ul> </li> <li>- A total of 11,592 (47%) Females out of 24,768 participants participated in CAEA and CLUP preparation.</li> <li>- The total commune beneficiaries in the 90 target communes where CLUPs were implemented were 1,057,581 including 539,126 (51%) females and the household beneficiaries were 242,414 including 29,910 (12%) female headed households.</li> </ul>

<p><b>OUTPUT 3: Climate-resilient rice value chain infrastructure developed</b></p>	<ul style="list-style-type: none"> <li>- 18,586 hectares (ha) of command area served by climate-resilient rehabilitated irrigation structures by 2021 (40% unskilled laborers employed in the rehabilitation are women;</li>   <li>- 50% of construction subcommittee members are women;</li>   <li>- One FWUC established in each irrigation scheme, with women occupying 30% of the management positions)</li> </ul>	<p><b>Achieved.</b></p> <ul style="list-style-type: none"> <li>- At program completion, 18,586 hectares of command area were served by completed irrigation structures and achieved the full plan (100%). These command areas provided benefits to 51,053 females (51%) of a total of 100,095 beneficiaries and 2,862 FHHs (14%) of a total of 20,510 household beneficiaries.</li>   <li>- At program completion, a total of 8,057 unskilled laborers, of which 3,259 (40.4%) women were employed and paid for work in the rehabilitation of irrigation scheme.</li>   <li>- At program completion, a total of 38,494 skilled and unskilled laborers and operation staff, of which 20,323 (53%) were women, were directly employed in the rehabilitation of irrigation schemes, PDS &amp; SPS construction and operation, land leveling activities, AC storage houses and FWUC building construction, and seed production activities. Among the total, 19,826 were employed in the unskilled category, of which 10,640 (54%) were women, and 18,668 were employed in the skilled category, of which 9,683 (52%) were women.</li> </ul> <p><b>Achieved.</b></p> <ul style="list-style-type: none"> <li>- At program completion, there were 113 females (55%) of a total of 204 community members in the construction subcommittees.</li> </ul> <p><b>Achieved.</b></p> <ul style="list-style-type: none"> <li>- One FWUC per scheme was established as per FWUC sub-decree. At program completion, all 9 FWUCs were established and 48% members in the management positions in FWUCs were women (106 women out of a total of 223 Committee Member).</li> </ul>
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	<ul style="list-style-type: none"> <li>- Two seed drying and storage facilities constructed by 2021 with a combined storage capacity of 6,400 tons (30% unskilled laborers and 50% administrative staff are women)</li>   <li>- 500 days of training to raise agricultural productivity provided to 22,000 farmers and community members (at least 50% of participants are women) (2021 baseline: 0) by 2023</li> </ul>	<p><b>Achieved.</b> At program completion,</p> <ul style="list-style-type: none"> <li>o 2 seed processing and storage facilities with a combined storage capacity of 6,400 tons were constructed and made operational.</li> <li>- 27 women (44.3%) out of 61 unskilled workers employed at seed processing and warehousing facilities located in Agriculture Stations.</li> <li>- 13 women (56.5%) out of 23 administrative staff employed at seed processing and warehousing facilities located in Agriculture Stations.</li> <li>o 5 paddy drying and storage facilities were constructed and made operational. The five facilities have a combined storage capacity of 62,850 tons</li> <li>- 365 women (33%) out of 1,110 unskilled workers employed at paddy drying and warehousing facilities located in Rice Mills.</li> <li>- 75 women (52%) out of 144 administrative staff employed at PDS facilities located in Rice Mills.</li> <li>o Thus, a total of 392 women (33%) out of 1,171 unskilled workers employed at drying and warehousing facilities. In terms of skilled and unskilled workers, a combined total of 499 women (34%) out of 1,478 skilled and unskilled workers employed at the PDS facilities.</li> <li>o A combined total of 88 women (53%) out of 167 administrative staff employed at drying and warehousing facilities.</li> </ul> <p><b>Achieved.</b> At program completion,</p> <ul style="list-style-type: none"> <li>o 13,992 days of training to raise agricultural productivity (12,470 days under original project and 1,522 days under the AF project) were provided to 352,120 farmers and community members, including 188,164 (53%) females (Original project =279,960 farmers including 149,472 females and AF project = 72,160 farmers including 38,692 females).</li> </ul>
<p><b>OUTPUT 4: Enhanced rice value chain support services for quality improvement</b></p>	<ul style="list-style-type: none"> <li>- 70% of farmers (disaggregated by sex) in target provinces using commercial seed every 2 years by 2021 (2012 baseline: 10%)</li> </ul>	<p><b>Achieved.</b></p> <ul style="list-style-type: none"> <li>- Endline Survey in 2024 found 71.3% of farmers including 27.2% female farmers in target provinces using certified rice seed every 2 years. The survey found a total of 84.3% of farmers adopted certified seeds.</li> </ul>

	<ul style="list-style-type: none"> <li>- 30% of farmers (disaggregated by sex) have leveled their paddy fields by 2021 (2012 baseline: 5%);</li>   <li>- 50% of farmers in target provinces (disaggregated by sex) obtain technical advice through trained input suppliers by 2021 (2012 baseline: 10%)</li> </ul>	<p><b>Achieved.</b></p> <ul style="list-style-type: none"> <li>- Endline Survey in 2024 found that 63.9% of farmers adopted land levelling (of which 65.6% were Female Farmers and 11.4% FHH).</li>   <li>- At program completion, through direct project intervention, 45.8% of farmers (304,861/665,520= 45.8%) adopted land levelling. Women farmers covered under land leveling were 154,819 i.e. 51% of total 304,861 farmers.</li>   <li>- Survey conducted by MAFF in January 2021 found 79% of farmers (including 8.5% women headed households) leveled their paddy fields in target areas.</li> </ul> <p><b>Achieved.</b></p> <ul style="list-style-type: none"> <li>- Endline Survey in September 2024 and Crop Survey conducted by MAFF in January 2021 found 65% of farmers (including 28% female headed households) in target provinces obtained technical advice through trained input suppliers.</li>   <li>- The project provided training for agricultural input suppliers. As of date, 2,267 input suppliers, of which 738 (33%) females, were trained under the program.</li> </ul>
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<p><b>OUTPUT 5: Weather-indexed crop insurance (WICI) piloted</b></p>	<ul style="list-style-type: none"> <li>- 120,000 ha of rice producing area covered by WICI by 2023 (50% of policy holders are women) (2012 baseline: 0)</li> </ul>	<p><b>Achieved.</b></p> <ul style="list-style-type: none"> <li>- Feasibility Study, Detailed Design, and pilot testing from 2021 to 2024 completed. Normally the sale of WICI Policy to farmers is conducted between 1 April to 30 June every year and the insurance coverage is up to 31 October.</li> <li>- At program completion, 160,376 hectares have been covered under WICI scheme (2021= 887ha; 2022= 2,424 ha; 2023= 80,962 ha; and 2024= 76,103 ha) and a total of 133,198 farmer households including 71,156 (53%) female households covered under the WICI scheme (2021= 675/336; 2022= 1,620/797; 2023= 54,800/28,336; and 2024= 76,103/41,687).</li> <li>- At program completion, 60,226 (53%) women out of total 112,827 farmers attended WICI awareness raising and sensitization training conducted by the PMO, PIOs, FORTE insurance, and WICI team; and 485 (35%) women out of a total of 1,403 participants from provincial offices, Insurance regulator office, insurance companies, meteorological and weather data agencies, agricultural research institutes, MFIs, agricultural input suppliers, Govt. agencies, and others attended capacity building activities under WICI scheme.</li> <li>- WICI Training Booklet (in Comic Book form) and Training Posters were developed in Khmer to assist the Trainers. 65,000 Booklets printed and distributed to farmers through PIOs, MFIs, seed merchants, fertilizer merchants, pesticide merchants and other agricultural input merchants. The booklet was designed to rely more on pictures to explain the disasters and crop insurance for awareness building.</li> </ul>
<p><b>OUTPUT 6: Efficient program management and implementation</b></p>	<ul style="list-style-type: none"> <li>- For PMO and PIOs, 30% of administrative and technical positions are filled by women by Q3 2013;</li> <li>- Progress of gender actions included as part of Rice-SDP progress reports</li> </ul>	<p><b>Significantly Achieved</b></p> <ul style="list-style-type: none"> <li>- At program completion, there were 46 female staffs (22%) out of a total of 212 Administrative and Technical Staffs at PMO, NIOs and PIOs under the Rice-SDP.</li> <li>- Progress of GAP implementation was regularly reflected in Rice-SDP progress reports.</li> </ul>

### **3) Status of Compliance with Loan/Grant Covenants**

Reference in the Grant Agreement	Major Covenants	Status
<p>LA, Schedule 5, para. 33 LA, Schedule 5, para.13</p>	<p><b>Major Covenants on Gender and Development:</b> The Borrower shall ensure that the GAP is fully implemented and that all Project related activities are designed and implemented in accordance with ADB's Policy on Gender and Development (1998). In particular, the Borrower shall ensure:</p> <ul style="list-style-type: none"> <li>(a) 50% female membership in community construction sub-committees</li> <li>(b) 40% female employment as unskilled laborers in Works;</li> <li>(c) 30% female in management positions in farmer cooperatives and farmer water user's committees;</li> <li>(d) 50% female farmers in pilot on farm trials and demonstrations and pilot crop insurance schemes; and</li> <li>(e) 50% female trainees in all Project training.</li> </ul>	<p><b>Complied with.</b></p> <p>The GAP was fully implemented and successfully completed. At program completion,</p> <ul style="list-style-type: none"> <li>a) 55% female membership (113 women of a total of 204 community members) in the community construction subcommittees;</li> <li>b) 41% female employment as unskilled laborers in Works (3,989 women of a total of 9,777 unskilled laborers engaged in rehabilitation of irrigation schemes, PDS facilities, SPS facilities and AC storage houses and FWUC building);</li> <li>c) 51% female (441 women of a total of 873 members) in management committee of Agriculture Cooperatives (ACs) and 48% female (106 women of a total of 223 members) in management committee of FWUCs;</li> <li>d) 61% female (9,550 women of a total of 15,775 farmers) attended Farmer Fields Schools, pilot on-farm trials and demonstrations; 58% female (23,966 women of a total of 41,461 farmers) attended post-harvest technology capacity building activities; 51% female (154,819 women of a total of 304,861 famers) improved their knowledge and capacity and adopted land leveling technology; 53% female (60,226 women of a total of 112,827 farmers) attended WICI awareness raising and sensitization training; and 53% female households (71,156 women of a total of 133,198 farmer households) bought WICI Policy; and</li> </ul>

Reference in the Grant Agreement	Major Covenants	Status
		<p>e) 52% female (193,412 women of a total of 373,176 participants) participated in all Project supported capacity building activities.</p> <p>f) The targets and actions in GAP were discussed regularly with program implementers through meetings or training to develop specific gender strategies or interventions to fully implement the GAP and linked them to M &amp;E reporting system and mechanism.</p> <p>g) Most of the GAP targets/gender indicators were associated with sub-project conditions and key stakeholders who were required to show strong commitments and attention to GAP. There was limitation in the technical capacity of gender focal points to engage, support, and implement GAP. The strengths and challenges of mainstreaming gender were discussed continuously in the training and meeting, and appropriate measures to promote gender equity in Rice-SDP and women's role in decision-making and technical works of the project were undertaken.</p>

AC=Agriculture Cooperative; ARDB= Agricultural and Rural Development Bank; CAEA=commune agro-ecosystem analysis; CARDI=Cambodian Agricultural Research and Development Institute; CLUP=commune land use plan; FFS=farmers field school; FGD=focus group discussion; FWUC=farmer water users community, GAP=gender action plan; GBV=gender based violence; GDA=General Directorate of Agriculture; GFP=gender focal person; HH=household; ISSs=implementation support specialists; M &E=monitoring and evaluation; MAFF=Ministry of Agriculture, Forestry and Fisheries; MEF=Ministry of Economy and Finance; MFI=micro-finance institution; MIH= Ministry of Industry and Handicrafts; MLMUPC=Ministry of Land Management, Urban Planning and Construction; MOWRAM=Ministry of Water Resources and Meteorology; NIO=National Implementation Office; PDA=Provincial Department of Agriculture; PDS=paddy drying and storage; PIC=project implementation consultants; PIO=provincial implementation office, PMO=Program Management Office; PWDRAM= Provincial Department of Water and Resources and Meteorology; RMCD=Rice Millers Capacity Development; SPS=seed processing and storage; TIP= Technical Information Package; ToT=training of trainers; WICI= weather-indexed crop insurance.

### Appendix 10 - Compliance With Project Specific Covenants

Product No.:	Schedule	Para No.	Description	Remarks/Issues	Type	Tranche
Loan 3007	Schedule 5	1	The Borrower and MEF shall ensure that the Project is implemented in accordance with the detailed arrangements set forth in the PAM. Any subsequent change to the PAM shall become effective only after approval of such change by the Borrower and ADB. In the event of any discrepancy between the PAM and this Loan Agreement, the provisions of this Loan Agreement shall prevail.	Complied.	Others	Non Release
Loan 3007	Article 4	2	(a) The Borrower shall (i) maintain separate accounts and records for the Project; (ii) prepare annual financial statements for the Project in accordance with accounting principles acceptable to ADB; (iii) have such financial statements audited annually by independent auditors whose qualifications, experience and terms of reference are acceptable to ADB, in accordance with international standards for auditing or the national equivalent acceptable to ADB; (iv) as part of each such audit, have the auditors prepare a report (which includes the auditors' opinion on the use of the Loan proceeds and compliance with the financial covenants of this Loan Agreement as well as on the use of the procedures for the imprest fund and statement of expenditures) and a management letter (which sets out the	Complied.  A financial management system was developed for the Project (EA, NIOs, PIOs).  The PMO, NIOs and PIOs established separate Project Accounts for receipt of project loan and grant funds.  Independent auditors were mobilized to audit the project's transactions. Annual financial statements for end of financial year 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023 and 2024 were prepared.	Financials	Non Release

		<p>deficiencies in the internal control of the Project that were identified in the course of the audit, if any); and (v) furnish to ADB, no later than 6 months after the end of each related fiscal year, copies of such audited financial statements, audit report and management letter, all in the English language, and such other information concerning these documents and the audit thereof as ADB shall from time to time reasonably request.</p> <p>(b) ADB shall disclose the annual audited financial statements for the Project and the opinion of the auditors on the financial statements within 30 days of the date of their receipt by posting them on ADB's website.</p> <p>(c) The Borrower shall enable ADB, upon ADB's request, to discuss the financial statements for the Project and the Borrower's financial affairs where they relate to the Project with the auditors appointed pursuant to subsection (a)(iii) hereinabove and shall authorize and require any representative of such auditors to participate in any such discussions requested by ADB. This is provided that such discussions shall be conducted only in the presence of an authorized officer of the Borrower, unless the Borrower shall otherwise agree.</p>	<p>PMO provided training to the NIOs and PIOs accounting staff on the SOPs. PMO provided yearly refresher training on Financial Management to relevant project staff.</p>		
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Loan 3007	Schedule 5	2	The Borrower shall ensure that the preparation, design, construction, implementation and operation of the Project, each Subproject and all Project facilities comply with (a) all applicable laws and regulations of the Borrower relating to environment, health and safety; (b) Environmental Safeguards; and (c) all measures and requirements set forth in the IEE, the EMP, and any corrective or preventative actions set forth in a Safeguards Monitoring Report.	Complied.	Safeguards	Non Release
Grant 0349	Section 4	2	(a) The Recipient shall (i) maintain separate accounts and records for the Project; (ii) prepare annual financial statements for the Project in accordance with accounting principles acceptable to ADB; (iii) have such financial statements audited annually by independent auditors whose qualifications, experience and terms of reference are acceptable to ADB, in accordance with international standards for auditing or the national equivalent acceptable to ADB; (iv) as part of each such audit, have the auditors prepare a report (which includes the auditors' opinion on the use of the Grant proceeds and compliance with the financial covenants of this Grant Agreement as well as on the use of the procedures for the imprest fund and statement of expenditures) and a management letter (which sets out the deficiencies in the internal control of the Project that were identified in the course of the audit, if any); and (v) furnish to ADB, no later than 6 months after the end of each related fiscal year, copies of such audited financial statements, audit	<p>Complied.</p> <p>A financial management system was developed for the Project (EA, NIOs, PIOs).</p> <p>The PMO, NIOs and PIOs established separate Project Accounts for receipt of project loan and grant funds.</p> <p>Independent auditors were mobilized to audit the project's transactions. Annual financial statements for end of financial year 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023 and 2024 were prepared.</p> <p>PMO provided training to the NIOs and PIOs accounting staff on the SOPs. PMO provided yearly refresher trainings on Financial Management to relevant project staff.</p>	Financials	Non Release

			<p>report and management letter, all in the English language, and such other information concerning these documents and the audit thereof as ADB shall from time to time reasonably request.</p> <p>(b) ADB shall disclose the annual audited financial statements for the Project and the opinion of the auditors on the financial statements within 30 days of the date of their receipt by posting them on ADB's website.</p> <p>(c) The Recipient shall enable ADB, upon ADB's request, to discuss the financial statements for the Project and the Recipient's financial affairs where they relate to the Project with the auditors appointed pursuant to subsection (a) (iii) hereinabove and shall authorize and require any representative of such auditors to participate in any such discussions requested by ADB. This is provided that such discussions shall be conducted only in the presence of an authorized officer of the Recipient, unless the Recipient shall otherwise agree.</p>			
Loan 3006	Schedule 4	2	<p>Policy Actions and Dialogue</p> <p>The Borrower shall: (a) ensure that all policy actions adopted under the Program as set forth in the Policy Letter and the policy matrix continue to be in effect for the duration of the Program and subsequently; and (b) adopt all policy actions under the#</p>	<p>Complied.</p> <p>The government achieved full compliance for all 12 policy conditions for the release of second tranche. Disbursement was already made to the government on 26 August 2022 and the loan account was closed on 31 August 2022.</p>	Sector	02

			Program, as set forth in the Policy Letter and the policy matrix, in accordance with the planned schedule and shall ensure that such policy actions continue to be in effect for the duration of the Program and subsequently.			
Loan 3006	Article 4	2	<p>(a) The Borrower shall maintain, or cause to be maintained, records and documents adequate to identify the Eligible Items financed out of the proceeds of the Loan and to record the progress of the Program.</p> <p>(b) The Borrower shall enable ADB's representatives to inspect any relevant records and documents referred to in paragraph of this Section.</p>	<p>Complied.</p> <p>A financial management system has been developed for the Project (EA, NIOs, PIOs).</p>	Others	Non Release
Grant 0350	Section 4	2	<p>(a) The Recipient shall (i) maintain separate accounts and records for the Project; (ii) prepare annual financial statements for the Project in accordance with accounting principles acceptable to ADB; (iii) have such financial statements audited annually by independent auditors whose qualifications, experience and terms of reference are acceptable to ADB, in accordance with international standards for auditing or the national equivalent acceptable to ADB; (iv) as part of each such audit, have the auditors prepare a report (which includes the auditors'</p>	<p>Complied.</p> <p>A financial management system developed for the Project (EA, NIOs, PIOs).</p> <p>The PMO, NIOs and PIOs established separate Project Accounts for receipt of project loan and grant funds.</p> <p>Independent auditors were mobilized to audit the project's transactions. Annual financial statements for end of financial year 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023 and 2024 were prepared.</p>	Financials	Non Release

		<p>opinion on the use of the Grant proceeds and compliance with the financial covenants of this Grant Agreement as well as on the use of the procedures for the imprest fund and statement of expenditures) and a management letter (which sets out the deficiencies in the internal control of the Project that were identified in the course of the audit, if any); and (v) furnish to ADB, no later than 6 months after the end of each related fiscal year, copies of such audited financial statements, audit report and management letter, all in the English language, and such other information concerning these documents and the audit thereof as ADB shall from time to time reasonably request.</p> <p>(b) ADB shall disclose the annual audited financial statements for the Project and the opinion of the auditors on the financial statements within 30 days of the date of their receipt by posting them on ADB's website.</p> <p>(c) The Recipient shall enable ADB, upon ADB's request, to discuss the financial statements for the Project and the Recipient's financial affairs where they relate to the Project with the auditors appointed pursuant to subsection (a)(iii) hereinabove and shall authorize and require any representative of such auditors to participate in any such discussions requested by ADB. This is provided that such discussions shall be conducted only in the presence of an authorized officer of the Recipient, unless the Recipient shall otherwise agree.</p>	<p>PMO provided training to the NIOs and PIOs accounting staff on the SOPs. PMO provided yearly refresher trainings on Financial Management to relevant project staff.</p>		
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Grant 0349	Article 4	3	The Recipient shall enable ADB's representatives to inspect the Project, the Goods and Works, and relevant records and documents.	Complied.	Others	Non Release
Loan 3006	Article 4	3	<p>(a) As part of the reports and information referred to in Section 6.05 of the Loan Regulations, the Borrower shall furnish, or cause to be furnished, to ADB all such reports and information as ADB shall reasonably request concerning</p> <p>(i) the Counterpart Funds and the use thereof; and</p> <p>(ii) the implementation of the Program, including accomplishment of the targets and carrying out of the actions set out in the Policy Letter;</p> <p>(b) Without limiting the generality of the foregoing or Section 6,05 of the Loan Regulations, the Borrower shall furnish, or cause to be furnished, to ADB quarterly reports on the carrying out of the Program and on the accomplishment of the targets and carrying out of the actions set out in the Policy Letter.</p>	<p>Complied.</p> <p>Processing of the policy documents and release of the second tranche was completed on 26 August 2022. The policy loan was closed on 31 August 2022.</p>	Others	Non Release
Loan 3006	Schedule 4	3	The Borrower shall keep ADB informed of policy discussions with other multilateral and bilateral aid agencies that may have implications for the implementation of the Program and shall provide ADB with an opportunity to comment on any resulting policy proposals. The Borrower shall take into account ADB's views before finalizing and implementing any such proposal.	<p>Complied.</p> <p>Processing of the policy documents and release of the second tranche was completed on 26 August 2022. The policy loan was closed on 31 August 2022.</p>	Sector	Non Release

Loan 3007	Article 4	3	The Borrower shall enable ADB's representatives to inspect the Project, the Goods and Works, and any relevant records and documents.	Complied.	Others	Non Release
Grant 0350	Article 4	3	The Recipient shall enable ADB's representatives to inspect the Project, the Goods and Works, and any relevant records and documents.	Complied.	Others	Non Release
Grant 0349	Article 4	4	The Recipient shall (a) ensure that the proceeds of the Grant are used for the purposes of the Project and not diverted for any other purpose; (b) promptly inform ADB if it becomes aware that the proceeds of the Grant are being or have been used for the purpose of any payment to a person or entity, or for import of goods, if such payment or import is prohibited by a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations; and (c) take necessary measures to ensure that entities to which the Recipient makes the proceeds of the Grant available comply with the provisions of this paragraph.	Complied. PMO introduced recording systems for all IAs to ensure that all relevant information is recorded.	Others	Non Release
Loan 3007	Schedule 5	4	The Borrower shall ensure that no subproject which meets ADB's category A environmental criteria set out in the Safeguard Policy Statement is included in the List of Candidate Subprojects, and that no subproject with category "A" environmental criteria is financed under the Project.	Complied.	Safeguards	Non Release

Loan 3006	Schedule 4	4	The Borrower shall ensure that the Counterpart Funds are used to finance the structural adjustment costs relating to the implementation of the reforms under the Program and other activities consistent with the objectives of the Program. The Borrower shall further ensure that the Counterpart Funds are used in accordance with its Standard Operating Procedures.	Complied.  Processing of the policy documents and release of the second tranche was completed on 26 August 2022. The policy loan was closed on 31 August 2022.	Sector	Non Release
Grant 0818	Article 4	4	(a) The Borrower shall (i) maintain separate accounts and records for the Project; (ii) prepare annual financial statements for the Project in accordance with financial reporting acceptable to ADB; (iii) have such financial statements audited annually by independent auditors whose qualifications, experience and terms of reference are acceptable to ADB, in accordance with auditing standards acceptable to ADB; (iv) as part of each such audit, have the auditors prepare a report, which includes the auditors' opinion(s) on the use of the Grant proceeds and a management letter which sets out deficiencies in the internal control of the Project that were identified in the course of the audit, if any); and (v) furnish to ADB, no later than 6 months after the end of each related fiscal year, copies of such audited financial statements, audit report and management letter, all in the English language, and such other information concerning these documents and the audit thereof as ADB shall from time to time reasonably request.	Complied.  A financial management system was developed for the Project (EA, NIOs, PIOs).  The PMO, NIOs and PIOs established separate Project Accounts for receipt of project loan and grant funds.  Independent auditors were mobilized to audit the project's transactions. Annual financial statements for end of the financial year 2022, 2023 and 2024 were prepared.  PMO provided training to the NIOs and PIOs accounting staff on the SOPs. PMO provided yearly refresher trainings on Financial Management to relevant project staff.	Financials	Non Release

			<p>(b) The Recipient shall enable ADB, upon ADB's request, to discuss the financial statements for the Project and the Recipient's financial affairs where they relate to the Project with the auditors appointed pursuant to subsection (a)(iii) hereinabove, and shall authorize and require any representative of such auditors to participate in any such discussions requested by ADB. This is provided that such discussions shall be conducted only in the presence of an authorized officer of the Recipient, unless the</p>			
Grant 0818	Article 4	4	<p>Para 4.03: The Recipient shall enable ADB's representatives to inspect the Project, the Goods, Works and Services, and any relevant records and documents.</p>	Complied.	Financials	Non Release
Grant 0818	Article 4	4	<p>Para 4.04: The Recipient acknowledges and agrees that this Grant Agreement is entered into by ADB, not in its individual capacity, but as supervising entity for GAFSP.</p> <p>Accordingly, the Recipient agrees that (a) it may only withdraw Grant proceeds to the extent that ADB has received the proceeds for the Grant from GAFSP and such proceeds have not been suspended or cancelled in whole or in part by GAFSP pursuant to the Transfer Agreement, and (b) that ADB does not assume any obligations or responsibilities of GAFSP in respect of the Project or the Grant other than those set out in the Grant Agreement.</p>	Complied.	Financials	Non Release

Loan 8271	Article 4	4	<p>Section 4.01: Withdrawal from the Loan Account:</p> <p>(a) Loan proceeds shall be used only for the purpose of the Project. Subject to any conditions or restrictions specified in this Loan Agreement, the Borrower shall be entitled to withdraw from the Loan Account such amounts as shall have been paid, or, if ADB shall so agree, such amounts as shall be required to meet payments to be made, for the reasonable cost of goods, services and any other expenditures required for the Project and to be financed under Loan Agreement.</p> <p>(b) Except as ADB and the Borrower shall otherwise agree, no withdrawals shall be made on account of payments made prior to the Effective Date. ADB may refuse to finance a contract where goods and services have not been procured in accordance with procedures substantially in accordance with those agreed between the Borrower and ADB or where the terms and conditions of the contract are not satisfactory to ADB.</p> <p>(c) Withdrawals of the proceeds of the Loan from the Loan Account shall be made in the Loan Currency. ADB may, at the request and acting as an agent of the Borrower, and on such terms and conditions as ADB shall determine, purchase with such currency withdrawn from the Loan Account such other currencies as the Borrower shall reasonably request to meet payments for items of expenditure to be financed from the Loan. Whenever it shall be necessary for the purpose of this Loan Agreement to determine the value of one currency in terms of another, such value shall be reasonably determined by ADB.</p>	Complied.	Financials	Non Release
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Loan 3007	Schedule 5	5	The Borrower shall ensure that all land and all rights-of-way required for the Project, each Subproject and all Project facilities are made available to the Works contractor in accordance with the schedule agreed under the related Works contract and all land acquisition and resettlement activities are implemented in compliance with (a) all applicable laws and regulations of the Borrower relating to land acquisition and involuntary resettlement; (b) the Involuntary Resettlement Safeguards; (c) the RF; and (d) all measures and requirements set forth in the respective RP, and any corrective or preventative actions set forth in a Safeguards Monitoring Report.	Complied.	Safeguards	Non Release
Loan 8271	Article 5	5	Section 5.09. Contractors and Consultants. Whenever applicable, in the carrying out of the Project, the Borrower shall cause competent and qualified consultants and contractors, acceptable to the Borrower and ADB, to be employed to an extent and upon terms and conditions satisfactory to the Borrower and ADB.	Complied.	Financials	Non Release
Loan 8271	Article 5	5	Section 5.06: Counterpart Obligation and Land Acquisition. The Borrower shall make available, promptly as and when needed, the funds, facilities, services, land and other resources as shall be necessary or required, in addition to the proceeds of the Loan, for the carrying out of the Project and for operation and maintenance of the Project facilities. The Borrower shall furnish to ADB, promptly at its request, evidence satisfactory to ADB that such funds, facilities, services, land, and other resources are available for purposes related to the Project.	Complied.	Others	Non Release

Loan 8271	Article 5	5	<p>Section 5.08. General Undertakings.</p> <p>(a) The Borrower shall cause the Project to be carried out with due diligence and efficiency and in conformity with sound applicable financial, business and development practices. The Borrower shall ensure that the activities of its departments and</p> <p>(b) agencies with respect to the carrying out of the Project and operation of the Project facilities are conducted and coordinated in accordance with sound administrative policies and procedures.</p>	Complied.	Financials	Non Release
Loan 8271	Article V	5	<p>Section 5.05 Reports</p> <p>(a) The Borrower shall furnish, or cause to be furnished, to ADB all such reports as ADB shall reasonably request concerning (i) the Loan, and the expenditures of the proceeds and maintenance of the services thereof; (ii) the goods and services and other items of expenditure financed out of the proceeds of the Loan; (iii) the Project and the Project Executing Agency; (iv) the administration, operations and financial condition of the Borrower; (v) any other matters relating to the purposes of the Loan.</p> <p>(b) Without limiting the generality of the forgoing, the Borrower shall furnish to ADB quarterly reports, or reports at such other later interval as may be agreed for this purpose between ADB and the Borrower on the execution of the Project, on the accomplishment of the targets and actions agreed between ADB and the Borrower, on the operations and management of the Project facilities. Such reports shall be submitted in such form and in such detail and within such a period as ADB shall reasonably request, and shall indicate, among other things, progress made and problems encountered during the quarter under review, steps taken or proposed to be taken to remedy these</p>	Complied.	Others	Non Release

			<p>problems, and proposed program of activities and expected progress during the following quarter.</p> <p>(c) Promptly after physical completion of the Project, but in any event not later than three months thereafter or such later date as may be agreed for this purpose between the Borrower and ADB, the Borrower shall prepare furnish to ADB a report, in such form and in such detail as ADB shall reasonably request, on the execution and initial operation of the Project, including its cost, the performance by the Borrower of its obligations under this Loan Agreement and the accomplishment of the purposes of the Loan.</p>			
Loan 8271	Article 5	5	<p>Section 5.07: Work Schedules, Plans and Design Standards. The Borrower shall cause the Project to be carried out in accordance with plans, design standards, specifications, works schedules and constructions methods acceptable to the Borrower and ADB, as applicable. When required by ADB, the Borrower shall furnish, or cause to be furnished, to ADB, promptly after their preparation, such plans, design standards, specifications and work schedules, and any material modification subsequently made therein, in such detail as ADB shall reasonably request.</p>	Complied.	Others	Non Release
Loan 8271	Article 5	5	<p>Section 5.10. Maintenance. The Borrower shall ensure that any facilities relevant to the Project are operated, maintained and repaired in accordance with sound operational and maintenance practices. The Borrower shall promptly as needed make or cause to be made all necessary repairs and renewables thereof.</p>	Complied.	Financials	Non Release

Loan 8271	Article 5	5	Section 5.04: Records, Accounts and Audits. The Borrower shall maintain or cause to be maintained, records and accounts adequate to identify the goods and services and other items of expenditures financed out of the proceeds of the Loan, to disclose the use thereof in the project, to record the progress of the Project (including the cost thereof) and to reflect, in accordance with the consistently maintained sound accounting principles, the operations and financial condition of the Borrower.	Complied.	Financials	Non Release
Loan 3006	Schedule 4	5	The Borrower shall ensure that each contract for Eligible Items is awarded on the basis of the purchaser's normal commercial procurement practices in the case of procurement by the private sector, or the Borrower's prescribed procurement procedures in the case of procurement by the public sector, having due regard for principles of economy and efficiency.	Complied.  Processing of the policy documents and release of the second tranche was completed on 26 August 2022. The policy loan was closed on 31 August 2022.	Sector	Non Release
Loan 3007	Schedule 4	5	National Competitive Bidding (NCB): The Borrower and ADB shall ensure that, prior to the commencement of any procurement activity under NCB, the Borrower's national competitive bidding procedures are consistent with the Procurement Guidelines. Any modifications or clarification to such procedure agreed between the Borrower and ADB shall be set out in the Procurement Plan. Any subsequent change to agreed modifications and clarifications shall become effective only after approval of such change by the Borrower and ADB.	Complied.	Others	Non Release

Loan 3006	Schedule 4	6	The Borrower shall, and shall cause MEF, MAFF, MLMUPC and MIME to, (a) comply with ADB's Anticorruption Policy (1998, as amended to date) and acknowledge that ADB reserves the right to investigate directly, or through its agents, any alleged corrupt, fraudulent, collusive or coercive practice relating to the Program; and (b) cooperate with any such investigation and extend all necessary assistance, including access to all relevant books and records, for satisfactory completion of such investigation.	Complied.  Processing of the policy documents and release of the second tranche was completed on 26 August 2022. The policy loan was closed on 31 August 2022.	Sector	Non Release
Loan 3007	Schedule 5	6	Without limiting the application of the Involuntary Resettlement Safeguards or the RP, the Borrower shall ensure that no physical or economic displacement takes place in connection with the Project until: (a) compensation and other entitlements have been provided to affected people in accordance with the RP; (b) a comprehensive income and livelihood restoration program has been established in accordance with the RP; and (c) all land and all rights-of-way required for a Subproject is free of all encumbrances.	Complied.	Safeguards	Non Release
Loan 3007	Schedule 4	6	The Borrower shall not award any works contracts for subproject which involves environmental impacts until the PIO has: (a) obtained the final approval of the IEE from the provincial department of environment; (b) obtained the endorsement of the IEE from MEF and ADB; and incorporated the relevant provisions from the EMP into Works contract.	Complied.	Others	Non Release

Loan 3007	Schedule 4	7	The Borrower shall not award any works contract involving involuntary resettlement impacts for a Subproject until the Borrower has prepared and submitted to ADB the final RP for such Subproject based on the Subproject's detailed design and obtained ADB's clearance of such RP.	Complied.	Others	Non Release
Loan 3007	Schedule 5	7	The Borrower shall ensure that no subproject which meets ADB's category A resettlement criteria set out in the Safeguard Policy Statement is included in the List of Candidate Subprojects, and that no subproject with category "A" resettlement criteria is financed under the Project.	Complied.	Safeguards	Non Release
Loan 3007	Schedule 5	8	The Borrower shall ensure that the Project does not have any indigenous peoples impact, all within the meaning of the Safeguard Policy Statement. In the event that the Project does have any such impact, the Borrower shall take all steps required to ensure that the Project complies with the applicable laws and regulations of the Borrower and with the Safeguard Policy Statement.	Complied.	Safeguards	Non Release
Loan 3007	Schedule 5	9	The Borrower shall make available necessary budgetary and human resources to fully implement each EMP and RP.	Complied.	Others	Non Release

Loan 3007	Schedule 5	10	<p>The Borrower shall ensure that all bidding documents and contracts for Works contain provisions that require contractors to:</p> <p>(a) comply with the measures relevant to the contractor set forth in each IEE, EMP and RP, and any corrective or preventative actions set forth in a Safeguards Monitoring Report;</p> <p>(b) make available a budget for all such environmental and social measures;</p> <p>(c) provide the Borrower with a written notice of any unanticipated environmental or resettlement risks or impacts that arise during construction, implementation or operation of the Project that were not considered in each IEE, EMP and RP;</p> <p>(d) adequately record the condition of roads, agricultural land and other infrastructure prior to starting to transport materials and construction; and</p> <p>(e) fully reinstate pathways, other local infrastructure, and agricultural land to at least their pre-project condition upon the completion of construction.</p>	Complied.	Others	Non Release
Loan 3007	Schedule 5	11	<p>The Borrower shall do the following:</p> <p>(a) submit semi-annual Safeguards Monitoring Reports to ADB and disclose relevant information from such reports to affected persons promptly upon submission;</p> <p>(b) if any unanticipated environmental and/or social risks and impacts arise during construction, implementation or operation of the Project that were not considered in each IEE, EMP and RP, promptly inform ADB of the occurrence of such risks or impacts, with detailed description of the event and proposed corrective action plan; and</p> <p>report any actual or potential breach of compliance with the measures and requirements set forth in an EMP or RP promptly after becoming aware of the breach.</p>	Complied.	Others	Non Release

Loan 3007	Schedule 5	12	The Borrower shall ensure that no proceeds of the Loan are used to finance any activity included in the list of prohibited investment activities provided in Appendix 5 of the Safeguard Policy Statement.	Complied.	Others	Non Release
Loan 3007	Schedule 5	13	The Borrower shall ensure that the GAP is fully implemented and that all Project-related activities are designed and implemented in accordance with ADB's Policy on Gender and Development (1998). In particular, the Borrower shall ensure: (a) 50% female membership in community construction sub-committees; (b) 40% female employment as unskilled laborers in Works; (c) 30% female in management positions in farmer cooperatives and farmer water user's committees; (d) 50% female farmers in pilot on farm trials and demonstrations and pilot crop insurance schemes; and (e) 50% female trainees in all Project training.	Complied.	Social	Non Release
Loan 3007	Schedule 5	14	The Borrower shall ensure that candidate subprojects in each Project Province are considered, and feasibility studies and detailed design of such candidate subprojects are carried out in the order of priority indicated in the List of Candidate Subprojects.	Complied.	Others	Non Release

Loan 3007	Schedule 5	15	<p>After completion of the requisite feasibility studies, the Borrower shall cause the PMO to ascertain whether the candidate subprojects meet the following criteria to be eligible for financing under the Project:</p> <p>(a) a subproject should be technically feasible and economically viable. If the estimated economic rate of return is below 12%, other significant benefits shall be quantified to demonstrate economic viability of such subproject;</p> <p>(b) procurement package(s), method(s) of procurement and cost estimates shall have been prepared;</p> <p>(c) a detailed financing plan for operation and maintenance of the subproject shall have been prepared: (i) identifying the entity which shall be responsible for the operation and maintenance of the subproject; and (ii) confirming the Project Province's commitment through budgetary allocation to provide requisite funds needed for the operation and maintenance of the subproject;</p> <p>(d) public hearings on a subproject proposal shall have been held in concerned communes and villages, and beneficiary representatives shall have been included in the subproject implementation subcommittee to ensure continued public consultation and supervision;</p> <p>(e) the subproject must be shown to have no significant negative environmental or social impacts, and mitigation measures shall have been identified for minor impacts;</p> <p>(f) the subproject must be shown to have no significant resettlement impacts, and if such subproject is categorized as Category B, a RP has been prepared in accordance with the RF, the Borrower's laws and regulations and the Safeguard Policy Statement; and</p>	Complied.	Others	Non Release
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			(g) the subproject must be shown to have no outstanding social safeguards issues resulting from existing facilities. In case there are any such outstanding issues, the Borrower shall ensure that the PIO concerned shall have prepared a corrective action plan in accordance with the Safeguard Policy Statement to address the same.			
Loan 3007	Schedule 5	16	In case that a candidate subproject does not meet the criteria provided in paragraph 101. meet the criteria provided in paragraph 15 above, it shall be replaced by next priority candidate subproject for the respective Project Province under the List of Candidate Subprojects. If a candidate subproject not listed in the List of Candidate Subprojects is to be considered, such subproject shall be examined and screened by MEF with the support from an independent consultant acceptable to ADB and the Borrower and submitted to ADB for approval.	Complied.	Others	Non Release
Loan 3007	Schedule 5	17	The Borrower shall ensure that Project Provinces promote active community awareness and stakeholder participation in the design, implementation and performance monitoring of the Subprojects, though (a) disseminating information regarding the nature of the Subprojects in open public forums, and (b) establishing a mechanism for public consultation.	Complied.	Social	Non Release
Loan 3007	Schedule 5	18	Within 12 months of the Effective Date, the Borrower shall cause MEF to engage a suitably qualified and experienced social science institute, university, consulting firm for a non-governmental organization, acceptable to ADB, to monitor Project benefits and submit annual benefit monitoring reports to the Borrower and ADB.	Complied. The engaged consulting firm for baseline and mid-term survey and ADB engaged consulting firm for endline survey. The social safeguard monitoring report for all approved subprojects has been prepared.	Social	Non Release

Loan 3007	Schedule 5	19	The Borrower shall and shall cause MEF, MAFF, MOWRAM, MLMUPC and the Project Provinces to (a) comply with ADB's Anticorruption Policy (1998, as amended to date) and acknowledge that ADB reserves the right to investigate directly, or through its agents, any alleged corrupt, fraudulent, collusive or coercive practice relating to the Project; and (b) cooperate with any such investigation and extend all necessary assistance, including access to all relevant books and records, as may be necessary for the satisfactory completion of any such investigation.	Complied.	Others	Non Release
Loan 3007	Schedule 5	20	The Borrower shall and shall cause MEF, MAFF, MOWRAM, MLMUPC and the Project Provinces to ensure that the anticorruption provisions acceptable to ADB are included in all bidding documents and contracts, including provisions specifying the right of ADB to audit and examine the records and accounts of MEF, MAFF, MOWRAM, MLMUPC, Project Provinces and all contractors, suppliers, consultants, and other service providers as they relate to the Project.	Complied.	Others	Non Release

### Appendix 11 - Contribution to Strategy 2030 Operational Priorities

OP No.	Corporate Results Framework Indicators (Outputs and Outcomes)	Expected Value	Achieved Value	Expected and Implemented Method	Assessment
2.3.1	Women with strengthened leadership capacities	20% of AC committee members	<p>69% of AC committee members, 54% of whom were women, were trained in business plan development and report writing.</p> <p>66% of AC committee members, 56% of whom were women, were trained in GBV.</p> <p>92% of AC committee members, 52% of whom were women, were trained in general concepts of financial management, access to finance, and reduction in financing cost.</p>	<p>At least 40 percent of AC committee members, 50 percent of whom are female, are trained in business plan development, report writing, general concepts of financial management, GBV awareness.</p> <p>At least 40% of AC committee members, 50% of whom are female, receive training on access to finance.</p> <p>These are GAP indicator (outputs 3 and 4)</p>	<p><b>Achieved.</b></p> <p>There were 144 ACs in the target communes with a cumulative total of 1,218 AC committee members, including 624 (51%) female members.</p> <p>At program completion,</p> <ul style="list-style-type: none"> <li>• 841 AC committee members (F = 452, 54%) were trained in business plan development and report writing. Thus, 69% of AC committee members were trained in this activity.</li> <li>• 799 AC committee members (F = 445, 56%) were trained in GBV. Thus, 66% of AC committee members were trained in this activity.</li> </ul> <p>102.</p> <ul style="list-style-type: none"> <li>• 1,117 AC committee members (F = 584, 52%) were trained in general concepts of financial management/access to finance/reduction in financing cost. Thus, 92% of</li> </ul>

OP No.	Corporate Results Framework Indicators (Outputs and Outcomes)	Expected Value	Achieved Value	Expected and Implemented Method	Assessment
					<p>AC committee members were trained in this activity. 103.</p> <p>In addition, 703 AC committee members, including 414 women (59%), participated in paddy market facilitation and seed business forums. Thus, 58% of AC committee members were trained in this activity. 104.</p> <p>(Source: PPMS Report of the EA)</p>
2.5.3	Savings and insurance schemes for women implemented or established	10,000 women	71,156 women	<p>WICI will cover 20,000 ha of rice field under the additional financing. 50% of WICI policyholders are women. This is a DMF indicator (Output 5c).</p> <p>With an average landholding of 1 ha per farmer, about 10,000 female farmers will receive WICI coverage.</p>	<p><b>Achieved.</b></p> <p>A total of 133,198 farmer households, of whom 71,156 (53%) were women, were covered under the WICI scheme.</p> <p>(2021= 675 farmer households, including 336 females; 2022= 1,620 farmer households, including 797 females; 2023= 54,800 farmer households, including 28,336 females; and 2024= 76,103 farmer households, including 41,687 females.)</p> <p>In addition, farmers' awareness raising activities were conducted by the PMO, PIOs, FORTE Insurance, and</p>

OP No.	Corporate Results Framework Indicators (Outputs and Outcomes)	Expected Value	Achieved Value	Expected and Implemented Method	Assessment
					<p>WICI team from 2021 to 2024, covering a total of 112,827 farmers (female = 60,226 - 53%).</p> <p>(Source: PPMS Report of the EA and Insurance Company Report)</p>
3.2.3	Financial preparedness instruments provided	20,000 ha of rice field	160,376 ha of rice field	WICI will cover 20,000 ha of rice field under the additional financing, in addition to 100,000 covered under the original project. This is a DMF indicator (Output 5c).	<p><b>Achieved.</b></p> <p>A total of 160,376 hectares in 505 villages have been covered under the WICI scheme (2021= 887ha; 2022= 2,424 ha; 2023= 80,962 ha; and 2024= 76,103 ha) under the original project and the AF combined.</p> <p>(Source: PPMS Report of the EA)</p>
5.1.1	Rural infrastructure assets established or improved	6 agricultural cooperatives	11 agricultural cooperatives	These agricultural cooperatives around three government agricultural stations will receive seed warehouses and drying yards to improve seed quality and storage life.	<p><b>Achieved.</b></p> <p>Constructed 11 paddy/rice seed storage houses and drying floors for 11 ACs (2 in Prey Veng; 4 in Battambang; and 5 in Kampong Thom).</p> <p>MAFF constructed 6 paddy/rice seed storage houses and drying floors for 6 ACs using the Additional Financing (AF) budget, and PMO constructed 5</p>

OP No.	Corporate Results Framework Indicators (Outputs and Outcomes)	Expected Value	Achieved Value	Expected and Implemented Method	Assessment
					<p>paddy/rice seed storage houses and drying floors for 5 ACs using budget savings under the original project.</p> <p>(Source: PPMS Report of the EA)</p>
5.3.2	Farmers using quality farm inputs and sustainable mechanization	22,000 farmers  19 agricultural cooperatives and 3 government agricultural stations	23,545 farmers  19 agricultural cooperatives and 3 government agricultural stations	<p>Contracted rice seed production of 1,800 tons, sufficient to supply 22,000 farmers. Rice seeds to be produced by agricultural stations and agricultural cooperatives. This is a DMF indicator (Output 4f);</p> <p>Farm machinery provided to promote mechanization and mitigate labor shortage. This is a DMF indicator (Output 4g).</p>	<p><b>Achieved.</b></p> <p>Four agriculture stations and 15ACs were contracted for quality certified rice seed production and produced 1,800 tons of certified rice seed using the AF budget. The seeds produced were sold to 23,545 farmers.</p> <p>22 rice seeders were procured and distributed to 19 ACs and 3 agricultural stations (Toul Samraong Seed Production Farm in Battambang, Balang Agricultural Station in Kampong Thom, and Poloas Research Station in Prey Veng) and training on their use was provided. The ACs participated in pre- and post-harvest capacity building activities.</p> <p>(Source: PPMS Report of the EA)</p>

AC = agricultural cooperative; DMF = design and monitoring framework; EA= executing agency; GAP = gender action plan; GBV = gender-based violence, MAFF= Ministry Of Agriculture, Forestry and Fisheries, OP = operational priority, PMO= Program Management Office of the Ministry of Economy and Finance, PPMS= program performance monitoring system; WICI = weather-indexed crop insurance.