

# **Program Administration Manual**

Program Number: 44321

Loan and/or Grant Number(s): {LXXXX; GXXXX; TXXXX}

18 February 2012

## **Kingdom of Cambodia: Climate Resilient Rice Commercialization Sector Development Program**

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## **Program Administration Manual Purpose and Process**

The program administration manual (PAM) describes the essential administrative and management requirements to implement the Program on time, within budget, and in accordance with the government and Asian Development Bank (ADB) policies and procedures. The PAM should include references to all available templates and instructions either through linkages to relevant URLs or directly incorporated in the PAM.

The Ministry of Economy and Finance (MEF) as the executing agency and the Ministries of Agriculture, Forestry and Fisheries (MAFF); Land Management, Urban Planning and Construction (MLMUPC); Water Resources and Meteorology (MOWRAM); Industry, Mines and Energy (MIME); and the Provincial Governors' Offices in the provinces of Battambang, Kampong Thom, and Prey Veng as the implementing agencies are wholly responsible for the implementation of the Program, as agreed jointly between the borrower and ADB, and in accordance with the government and ADB's policies and procedures. ADB staff is responsible to support implementation including compliance by MEF, MAFF, MLMUPC, MOWRAM, MIME, and the Provincial Governors' Offices of their obligations and responsibilities for program implementation in accordance with ADB's policies and procedures.

At Loan Negotiations the borrower and ADB shall agree to the PAM and ensure consistency with the Loan agreements. Such agreement shall be reflected in the minutes of the Loan Negotiations. In the event of any discrepancy or contradiction between the PAM and the Loan Agreements, the provisions of the Loan Agreements shall prevail.

After ADB Board approval of the Program's report and recommendations of the President (RRP) changes in implementation arrangements are subject to agreement and approval pursuant to relevant government and ADB administrative procedures (including the Project Administration Instructions) and upon such approval they will be subsequently incorporated in the PAM.

## Abbreviations

ADB	- Asian Development Bank
ADF	- Asian Development Fund
AEA	- agro-ecosystem analysis
CARDI	- Cambodia Agriculture Research and Development Institute
CEFP	- Committee on Economic and Financial Policies
CLUP	- commune land use planning
CQS	- consultant qualification selection
DAE	- department of agriculture extension
EMP	- environmental management plan
FWUC	- farmer water user community
GAFSP	- Trust fund for the Global Agriculture and Food Security Program
GAP	- gender action plan
GDA	- General Directorate of Agriculture (of MAFF)
ICB	- international competitive bidding
IEE	- initial environmental examination
MAFF	- Ministry of Agriculture, Forestry and Fisheries
MEF	- Ministry of Economy and Finance
MIME	- Ministry of Industry, Mines and Energy
MLMUPC	- Ministry of Land Management, Urban Planning and Construction
MOWRAM	- Ministry of Water Resources and Meteorology
NCB	- national competitive bidding
NCCD	- National Committee for Sub-national Democratic Development
NGO	- nongovernment organization
NIO	- national implementation office
PAM	- program administration manual
PDA	- provincial department of agriculture
PDLMUDC	- provincial department of land management urban planning and cadastre
PDWRAM	- provincial department of water resources and meteorology
PIO	- provincial implementation office
PIC	- program implementation consultants
PMO	- program management office
PPCR	- Pilot Program for Climate Resilience
PPMS	- project performance monitoring system
PPP	- public-private partnership
PSC	- provincial steering committee
QBS	- quality based selection
QCBS	- quality- and cost based selection
RF	- resettlement framework
RP	- resettlement plan
RRP	- Report and Recommendation of the President to the Board
Rice-SDP	- Climate Resilient Rice Commercialization Sector Development Program
SOE	- statement of expenditure
SPS	- safeguards policy statement
TOR	- terms of reference
WICI	- weather indexed crop insurance

## I. THE SECTOR DEVELOPMENT PROGRAM DESCRIPTION

### A. Summarize the Program's Rationale, Location and Beneficiaries

1. Agriculture remains the dominant sector in the Cambodian economy contributing 32% of gross domestic product and employing 60% of the workforce, while 80% of the population depends on the sector for their livelihood. The agriculture sector has been one of the main engines of economic growth achieving steady growth over the past 10-years.<sup>1</sup> Within agriculture, rice accounts for over 90% of the cropped area, the production from which is mostly consumed domestically. The rice subsector accounts for about 50% of the national agriculture, forestry and fisheries output. The Government of Cambodia (government) considers the rice subsector as an opportunity for socioeconomic development and articulated its intentions in the Rice Policy to transform Cambodia into a 'rice basket' and a major rice-exporting country. In this regard, the government has set three important objectives for 2015: (i) that paddy surplus will exceed 4.0 million tons, (ii) that milled rice exports will be at least 1.0 million tons,<sup>2</sup> and (iii) for Cambodia to be recognized internationally as a rice exporting country.<sup>3</sup>

2. Cambodia reported a paddy surplus estimated at 3.3 million tons in 2010.<sup>4</sup> Despite the surplus, nearly one quarter of the provinces face food deficits because of limited marketing channels and distribution infrastructure. Price fluctuations across provinces are frequently observed due largely to supply and demand imbalances and the movement of unprocessed paddy to Thailand and Viet Nam after each harvest. Eleven per cent of all households are considered food insecure, with many facing a deficit for one to two months each year. This figure rises during the dry season to an estimated 18%. Furthermore, 90% of all food insecure households are found in rural areas.<sup>5</sup>

3. Given its dominant position in the economy, transforming the rice subsector from being subsistent into a commercially oriented one is a strategic option for Cambodia as it provides the best opportunity to improve national food security and expand rice export resulting in reduced poverty. These twin objectives of food security and export expansion will be mutually reinforced by paddy surpluses being marketed increasingly within the country and in international markets. However, to achieve this outcome, several critical binding constraints must be addressed.<sup>6</sup>

4. **A legal and regulatory foundation that enables rice commercialization is lacking.** Key bottlenecks must be addressed. First, the absence of legislation to protect the interests of seed developers is constraining access to new genetic material available elsewhere in Asia. As a result, the seed industry is seriously under-developed. Second, efficiency of land and water use has been low and aggravated by the absence of a legal framework for land use planning, zoning, the lack of current soil productivity mapping, and land leveling. Third, the opportunity for farmers to engage in cooperative action to achieve production efficiencies and improve their bargaining power is being inhibited by the lack of a legal framework governing agricultural associations. Fourth, efforts to link production to the

<sup>1</sup> Sector Assessment is accessible from the list of linked documents in Appendix 2 of the RRP.

<sup>2</sup> Cambodia's official rice exports were estimated at about 105,000 tons (excluding the paddy exported unofficially to Thailand and Viet Nam) in 2011 against the 34.3 million tons traded globally. While Cambodian rice has a comparatively small proportion, growth in the global trade of 9% per annum suggest sound opportunities on export markets for Cambodian rice.

<sup>3</sup> The Government of Cambodia. 2010. *Policy on Promotion of Paddy Production and Rice Export*. Phnom Penh. The Rice Policy is consistent with the Rectangular Strategy (Phase II, 2008), the National Strategic Development Plan (201113), and the Strategy on Agriculture and Water (200913). These strategies and plans articulate the pathways toward enhancing agricultural commercialization. The government considers the promotion of rice export as a role model for export promotion of other agricultural products. Therefore, Rice-SDP will serve as a flagship framework for future ADB assistance in the agriculture sector.

<sup>4</sup> This is a derived figure in the government's Rice Policy based on estimated production less post-harvest loss and seed retention.

<sup>5</sup> World Food Program. 2008. *Comprehensive Food Security and Vulnerability Analysis—Cambodia*. Phnom Penh.

<sup>6</sup> The Sector Assessment is accessible from the list of linked documents in Appendix 2.

quality required by domestic and international markets are being hampered by inadequate legal framework for contract farming. Fifth, the lack of a quality grading system for rice reduces the credibility of Cambodian rice on international markets since buyers lack confidence in receiving the quality ordered compared with alternative supply from other rice exporting countries. Finally, the rice subsector has limited access to finance since collateral options for bank loans are not diverse, driving borrowers to other higher cost financing alternatives.

**5. Use of land and water resources for paddy production is suboptimal.** Use of land and water for rice production is influenced by local natural features and precipitation patterns. Annual inundation and subsequent recession of flood waters extends over a large area of flat land surrounding the Tonle Sap basin and the Mekong River flood plains. Increased incidence of flooding and the availability of short maturation rice varieties have given rise to four complex rice cropping systems that are continuously shifting in location.<sup>7</sup> In response to the need to supply a growing domestic market and higher rice prices, farmers have extended the cultivated rice areas, sometimes into environmentally sensitive areas such as the floating forest areas surrounding the Tonle Sap basin. Therefore, there is a need to rationalize the land use through agricultural land-use zoning to preserve suitable rice production areas while protecting environmentally sensitive areas. It is also critical to identify potential intensive production areas where soil types are favorable and water available for multiple cropping. Given that only 20% of paddy production comes from irrigated areas, enhanced production can only be achieved by increasing cropping intensity. This requires rehabilitation and construction of irrigation systems which are resistant to climate change.

**6. Capacities of post-harvest infrastructure are inadequate to handle increasing volumes of paddy.** Surplus paddy has mainly been exported in wet content to Thailand and Viet Nam for subsequent drying and processing. Much of this trade has resulted from the lack of post-harvest infrastructure in Cambodia.<sup>8</sup> Quality deterioration of moist paddy occurs after harvest if it is not dried to 14% moisture content. Volumes of paddy being supplied onto markets have increased dramatically at peak delivery times with the (i) increased areas under production, (ii) increased use of mechanized harvesting driven by the high cost of labor, and (iii) farmers' preference to dispose of paddy after harvest. The infrastructure to handle, dry, store, and transport the volumes is not sufficiently developed in spite of significant private investment in milling, drying, and storage facilities in recent years. These surpluses at peak times are cleared, often at discounted prices, across the border for processing to prevent quality deterioration and hence in-country value retention is limited.

**7. Quality of Cambodian rice is inconsistent.** Quality of Cambodian rice is low and can be attributed to the relatively low production and processing technologies used by a large number of small-scale producers and processors. This involves limited use of quality seed, traditional planting techniques, inappropriate application of fertilizers and chemicals, limited use of mechanized land preparation, land leveling and harvesting techniques. These are confounded by limited access to credit and the weak technical extension services. The quality of milled rice can only be assured with the combination of quality paddy as a raw product and modern milling techniques (i.e. drying, processing, sorting, and color grading). The wide variety of milling technologies employed in Cambodia makes it difficult to produce rice of export quality. This is further confounded by the absence of rice standards for quality assurance. In many instances, the phyto-sanitary requirements of importing countries can be neither achieved nor certified under current practices. The process of paddy and rice aggregation and marketing involves a large number of small-scale producers and processors. This reality, together with the limited post-harvest infrastructure, adds to the cost

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<sup>7</sup> Four rice cropping systems include the upland fields, rain-fed lowland fields, deep water paddy fields, and dry season paddy fields.

<sup>8</sup> Wet paddy is defined as the grains containing 25-30% moisture.

of the final product, which make Cambodian rice uncompetitive and little known on export markets.

8. **Paddy production is increasingly vulnerable to the changing climate.** According to the World Risk Report 2012, Cambodia ranks 8<sup>th</sup> among the top 15 countries with highest risk of impact from climate change. Climate change has increased the number of extreme climate events such as floods and droughts in Cambodia. In the coastal regions, the impacts of sea level rise and saltwater intrusion are expected to be severe by 2050. Loss in paddy output in Cambodia due to climate change is estimated to be significant. Of total loss, 70% was due to the occurrence of floods, 20% due to droughts, and 10% due to other reasons such as pest and diseases.<sup>9</sup> In this regard, climate change is expected to exacerbate food insecurity, which is already a problem in one quarter of provinces of Cambodia.

9. The increasing incidence of flooding has driven farmers to consider alternate cropping systems, and, where water is available, dry season irrigated rice production is adopted as an alternative. Nevertheless, some of these changes are detrimental to the sustainable use of land resources. Greater focus on the early wet season crop allows farmers to avoid the most severe flooding period as crops can be harvested before its onset. Recession and late wet season crops respond well to increased fertilizer applications. However, such practices will have a detrimental effect on the structure of certain soil types. As a result of the changing cropping systems, pattern of paddy delivery to collectors, traders and millers also changes and requires adaptive post harvest management strategies. To minimize the impacts of climate changes, Cambodia needs to (i) adopt sustainable land-use practices through the implementation of agro-ecosystems analyses; (ii) make available crop insurance products that are weather-indexed to encourage farmers to adopt a longer term planning perspective for rice production; (iii) modify structural designs of irrigation systems to accommodate increased peak flows and leveling the paddy land, both to improve water utilization efficiency of irrigation schemes; and (iv) adjust management and processing of wet paddy to continually improve milling efficiency and maintain high quality at reasonable processing costs.

10. In response to the impact of climate change, the government approved the National Adaptation Program of Action to Climate Change (NAPA) in 2006. NAPA facilitate climate change adaptation activities through the improvement of rainwater harvesting facilities at the community level; adopting system of rice intensification (SRI) to reduce vulnerability to changing rainfall amounts and patterns; modifying the designs of reservoirs and irrigation systems/channels; and managing natural ponds to better manage climate change induced risks. Despite these efforts, adaptation and mitigation are often challenged by (i) limited information on local impacts; (ii) low awareness in governance and administration; (iii) limited institutional, personnel and technical capacities; (iv) weak cross-sector and cross-regional coordination; and (v) lack of suitable technologies and data, reliable disaster control and forecast mechanisms, and budgets.

11. Given these binding constraints, commercialization of rice that enhances resilience of its multiple cropping systems will entail adjustments in the legal frameworks and relevant regulations coupled with institutional strengthening of rice value chain participants, including private sector investors and individual households. While this is necessary, it will not be sufficient to unlock the potential of these participants. Reforms must be accompanied by well sequenced investments and capacity development if binding constraints are to be addressed in an integrated manner. To this end, the Sector Development Program modality is required as it permits packaging of assistance to address reforms, investments, and capacity building in a sequential manner.

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<sup>9</sup> Cambodia Water Partnership. 2010. *The State of Climate Change Management in Cambodia*. Phnom Penh.

## B. Impact and Outcome

12. Rice-SDP comprises a policy-based loan and a project loan. Its impact is increased net incomes of stakeholders along the rice value chain. The outcome is enhanced production of quality rice in Cambodia while preserving the natural resource base.<sup>10</sup>

## C. Outputs

13. Rice-SDP will address key high priority and strategic measures<sup>11</sup> stated in the Rice Policy to improve national food security<sup>12</sup> and expand rice export through (i) removing legal and regulatory constraints inhibiting rice commercialization; (ii) improving productivity of paddy crops and consistency in quality of milled rice; (iii) enhancing rice value chain support services; and (iv) addressing risks of climate change through mitigation and adaptation.<sup>13</sup> Rice-SDP has six outputs. Output 1 relates to the policy-based loan, whereas outputs 2-6 relate to the Project to capitalize on legal and regulatory reforms proposed under the policy-based loan.

14. **Output 1 - A Conducive Legal and Regulatory Environment Established to Facilitate Climate Resilient Rice Commercialization.** This output will focus on legal and regulatory reforms that (i) promote production and distribution of improved quality seed; (ii) strengthen agricultural land management; (iii) strengthen farmers' organizations and promote contract farming; (iv) facilitate domestic trading and export of milled rice; and (v) improve access to finance. The reform initiatives are described in detail in the Development Policy Letter (Appendix 3 of the RRP) and the Policy Matrix (Appendix 4 of the RRP).

15. **Output 2 - Agricultural Land-use Zoning Improved.** This output comprises: (i) establishing land-use zones;<sup>14</sup> (ii) updating rice ecosystems and soil classification maps for identification of higher yielding rice growing areas; (iii) incorporating agro-ecosystem analyses into commune land-use planning, and (iv) developing the capacity of Ministry of Agriculture, Forestry and Fisheries (MAFF) and Ministry of Water Resources and Meteorology (MLMUPC) to undertake joint work in relation to agricultural land-use planning. Activities under this output will help identify areas that are better suited to rice production as well as high-risk flood prone areas to be utilized for maintaining ecosystem diversity. Linked to the zoning initiative, technical procedures will be modified to accommodate guidelines for paddy production to ensure sustainable cultivation practices.

16. **Output 3 - Climate Resilient Rice Value Chain Infrastructure Developed.** This output comprises high priority investments in three major rice-producing provinces—Battambang, Kampong Thom, and Prey Veng. The investments include: (i) rehabilitation and climate proofing of irrigation systems; (ii) construction of paddy drying and storage facilities; and (iii) construction of seed cleaning, drying, grading and storage facilities. The investments have been identified and prioritized based on provincial development priorities.<sup>15</sup> Irrigation rehabilitation and climate proofing will help increase productivity and cropping intensities. Establishment of paddy drying and storage facilities will accommodate paddy supplies at

<sup>10</sup> The design and monitoring framework is in Appendix 1 of the RRP.

<sup>11</sup> Policy measures for promotion of paddy production and rice export are in Annex 2 of the Rice-Policy.

<sup>12</sup> Rice-SDP will improve rice productivity and quality, market access, and enhance resilience of natural resources to climate change. This is in conformity with: ADB. 2009, *Operational Plan for Sustainable Food Security in Asia and the Pacific*. Manila.

<sup>13</sup> Rice-SDP will add weight to the GMS Southern Economic Corridor initiatives to gain maximum leverage from strengthening of the value chains. It will also enhance impact of investment in transport infrastructure by ADB and development partners, which was amounted to \$15 billion as of June 2012.

<sup>14</sup> Participatory approach will be used. Program implementation consultant will provide technical assistance to ensure stakeholders including commune councils, farmers and civil society organizations participate in zoning activities in a systematic manner. Independent entities will be engaged to monitor zoning activities together with other safeguards issues.

<sup>15</sup> The list of pre-screened and eligible subprojects is in Supplementary Document 1.

peak periods after harvest to ensure better quality for processing and retained added value in Cambodia. Construction of seed cleaning, drying, grading and storage facilities will contribute to increased availability of quality rice seed — an integral component of rice quality improvement and a necessary pre-requisite to supply export markets with rice of consistent quality. To ensure these facilities are maintained and operated on a commercial basis, they will be operated by public private partnerships. These mechanisms are necessitated as the investments are relatively high risk for any individual private firm in Cambodia and the highly commercial nature of the investment renders the government an inappropriate institution to operate these facilities.

17. **Output 4 - Rice Value Chain Support Services Enhanced to Improve Quality of Cambodian Rice.** This output comprises: (i) improving the availability and quality of commercial rice seed; (ii) upgrading technical extension material to guide production in the four main rice crops; (iii) capacity building (technical and financial) of mill managers and operators; and (iv) facilitating access to credit by farmers, traders, and millers. Activities under this output will improve the quality of paddy and subsequent milled rice and enhance Cambodia's participation in export markets.

18. **Output 5 - Weather-indexed Crop Insurance Piloted.** This output comprises: (i) undertaking a detailed feasibility study to determine the appropriateness of a weather-indexed crop insurance scheme; (ii) designing the operational parameters, product penetration plan, and institutional arrangements; and (iii) piloting the scheme in selected areas in three project provinces. Activities under this output will reduce the risk associated with paddy production and allow farmers to adopt modern production technologies and therefore extend their longer term planning horizon. Since paddy production for sales will become an increasingly important income component of farming households, it will also stimulate further commercialization.

19. **Output 6 - Efficient Program Management and Implementation.** This output comprises: (i) effective project management; (ii) capacity building of the Program Management Office (PMO) and each National Implementation Office (NIO) and Provincial Implementation Office (PIO); and (iii) coordination between policy development and investment activities. These activities will be supported by consulting services to ensure efficient implementation.

#### **D. Beneficiaries**

20. Beneficiaries are categorized into those accruing from the policy development initiatives, secondly, those from the national investment initiatives, and thirdly, those more directly related to subproject investments.

21. **Policy Development Initiatives.** The main beneficiaries from policy development initiatives will be the sector as a whole and the economy as planned development will see many of the existing constraints to commercial rice development addressed. First, policy initiatives related to the promotion of local seed production and distribution which will have an impact country wide. The quality of rice seed is recognized as one of the main constraints limiting rice productivity and the introduction of proprietary rights to seed material will encourage the introduction of new varieties from all sources. Second, initiatives in land-use management will protect agricultural land from unsustainable uses through zoning initiatives to guide production possibilities to the benefit of all land owners. Third, initiatives in cooperative development will legitimize the fledgling farmer cooperative movement enabling them to play greater roles for input supply and marketing arrangements to the immediate benefit of the farmers as well as the private sector traders and processors who are dependent upon their supplies. Fourth, initiatives in rice standards and grading will provide the reference framework for rice trading that will give buyers added confidence in the quality

they might request while ensuring farmers receive an appropriate value for the product they deliver. Finally, the initiatives in the development of new financial products will expand options for traders, millers, and exporters in seeking collateral financing based on warehouse stock.

22. **National Investment Initiatives.** For national level initiatives implemented by MLMUPC, 90 communes will have revised agro-ecosystem analyses completed in their respective communes and these will be incorporated into the commune land-use plans that form the basis of the bottom-up planning initiatives currently part of Cambodia's decentralized and de-concentrated public sector investment program. Farmers in these communes will be able to make more informed plans as to what to produce and when to grow crops in order to maximize their income potential.

23. For MAFF implemented initiatives, improved technical information procedures will be updated and made available to all extension staff country-wide. The rice ecosystem maps developed using GIS data sets will be completed for the main rice growing areas surrounding the Tonle Sap basin and these will highlight those areas that are at risk from more extreme flooding events. These data sets can be used to get farmers to consider shifting to lower risk cropping alternatives.

24. Rice growers throughout the country will benefit from the introduction of a seed classification scheme and the strengthened capacity of institutions and private entities to produce quality foundation, certified and commercial seed material. This will ensure improved quality and greater quantities of rice seed and availability of the most desired varieties to farmers. Commercial seed production should increase to an estimated 8,000 tons per annum providing seed for an estimated planting area of 80,000 ha or an estimated 80,000 farming households. This in turn will be expected to generate incremental yields in the order of 20% over existing levels. The initiatives directed at millers will develop their capacities to manage their milling operations and financial management techniques that based on 30 millers and assuming there are medium-sized processing units, will have an impact over an estimated 500,000 tons of rice each year with a potential incremental value of say \$5/ton will generate a benefit of \$2.5 million each year from this initiative alone.

25. **Subproject Investments.** For subprojects, beneficiaries include about 23,000 rice farming households where irrigation facilities will be rehabilitated and 50,000 rice farming households who will benefit from alternate supply options through delivery contracts to paddy drying and storage facilities financed by Rice-SDP. These households are expected to incrementally gain an estimated 20% for the value of their rice sold each year – or an aggregate \$750,000 in incremental household incomes per annual. For the private partnership operators, the financial benefits from the operations of the drying and storage facilities shows an internal rate of return of greater than 30% implying that the operators will attract a value added margin of 30% or the combined equivalent of \$12 million in value added retained in Cambodia each year. On each of the subprojects financed under Rice-SDP, associated initiatives directed at beneficiary farming households include technology support, land leveling and farmer water user community support each will complement incremental incomes received by beneficiary farmers. Together, with the impact from irrigation rehabilitation, the financial analyses undertaken on irrigation subprojects suggest that beneficiary household incomes will improve by a figure over \$300 each year.

26. Those participating in the insurance pilot are estimated at 100,000 ha or the equivalent number of families. The added security provided by weather-indexed crop insurance will allow the adoption of longer term planning strategies particularly in relation to input supplies - such as the use of quality (and more expensive) seed material compared to the current practice of retaining seed material from previous crop.

## II. IMPLEMENTATION PLANS

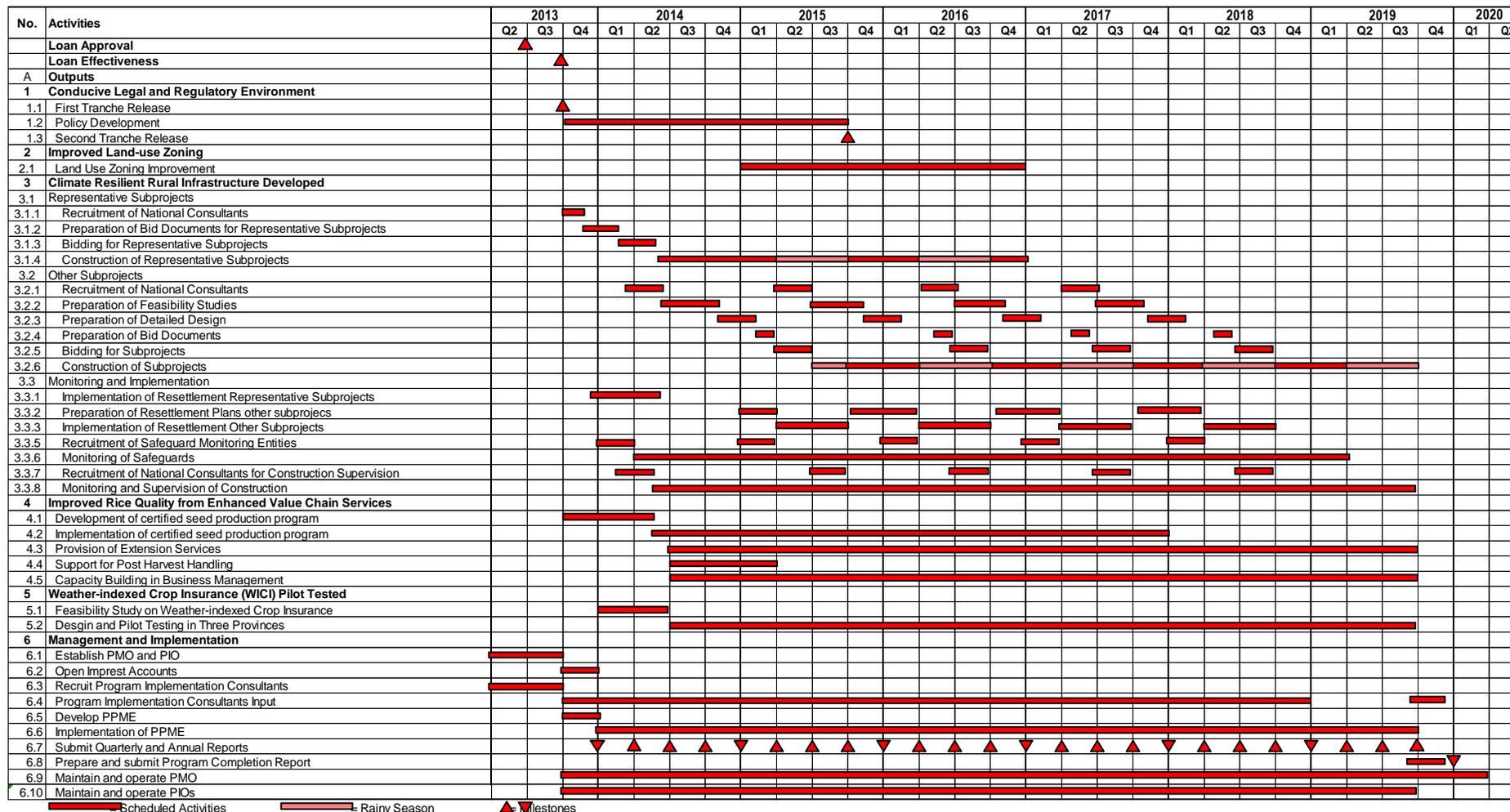
### A. Rice-SDP's Readiness Activities

Indicative Activities	2013								Who is Responsible*
	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	
Advance contracting actions									MEF
Retroactive financing actions									
Establish program implementation arrangements									MEF
ADB Board approval (28 Jun 2013)									SEER
Loan signing (July 2013)									SEER/OGC/MEF
Government legal opinion provided									MEF
Government budget inclusion									MEF
Loan effectiveness (1 Oct 2013)									SEER/OGC

\* MEF= Ministry of Economy and Finance; OGC=Office of General Counsel (ADB);  
SEER = Agriculture, Environment and Natural Resources Division of the Southeast Asia Department (ADB)

## B. Rice-SDP's Implementation Plan

OVERALL PROGRAM IMPLEMENTATION SCHEDULE



OVERALL PROGRAM IMPLEMENTATION SCHEDULE (cont'd)

No.	Activities	2013		2014				2015				2016				2017				2018				2019				2020		
		Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
<b>B</b>	<b>Management Activities</b>																													
<b>7</b>	<b>Procurement Packages</b>																													
7.1	Preparation of Bidding Documents representative subprojects																													
7.2	Bidding and Contracting Representative Subprojects																													
7.3	Preparation of Bidding Documents Other subprojects																													
7.4	Bidding and Contracting Other Subprojects																													
<b>8</b>	<b>Consultant Selection</b>																													
8.1	Program Implementation Consultant																													
8.2	Safeguard Monitoring Entities																													
8.3	National Consultants for Preparation of Feasibility Studies																													
8.4	National Consultants for Preparation of Detailed Design																													
8.5	National Consultants for Preparation of Bid Documents																													
8.6	National Consultants for Construction Supervision																													
<b>9</b>	<b>Environmental Management Plan</b>																													
9.1	Preparation of Subprojects EMP																													
9.2	Implementation of EMP																													
<b>10</b>	<b>ADB Review</b>																													
10.1	Inception																													
10.2	Annual Review																													
10.3	Mid-term Review																													
10.4	Program Completion Report																													
	<b>Loan &amp; Grant Closing</b>																													

 Scheduled Activities    
  Rainy Season    
  Milestones

**Note:** The Rice-SDP's implementation period is from 1 October 2013 to 30 September 2019.

### III. MANAGEMENT ARRANGEMENTS

#### A. Rice-SDP's Implementation Organizations – Roles and Responsibilities

Organizations	Management Roles and Responsibilities
<b>Executing agency</b>	
<ul style="list-style-type: none"> <li>• Ministry of Economy and Finance</li> </ul>	<p>The MEF will be the executing agency and will be responsible for overall management and coordination of the Program.</p>
<ul style="list-style-type: none"> <li>• Program Management Office</li> </ul>	<p>A PMO will be established within MEF to manage the Program and ensure policy actions are implemented. Among others, the PMO will be responsible for:</p> <ul style="list-style-type: none"> <li>• overall management and coordination of Rice-SDP;</li> <li>• liaison with the Governor's offices in Battambang, Kampong Thom, and Prey Veng;</li> <li>• establishment and management of imprest account, submission of withdrawal applications to ADB, retention of supporting documents, and overseeing sub-accounts;</li> <li>• provision of guidance and coordination to the implementing agencies;</li> <li>• establishment and implementation of the project performance management system (PPMS);</li> <li>• selection of consulting services following ADB procedures, including program implementation consultants (PIC); national consultants for preparation of feasibility studies; preparation of detailed design'; supervision of construction; and safeguard monitoring;</li> <li>• preparation of annual forecast of contract awards and disbursements;</li> <li>• recruitment of firm for annual audit of program accounts;</li> <li>• compilation of reports from the NIOs and PIOs and preparation of program progress reports;</li> <li>• submission of progress reports and annual audit report and financial statements; and</li> <li>• preparation of program completion report.</li> </ul>
<b>Steering Committees</b>	
<ul style="list-style-type: none"> <li>• National Steering Committee</li> </ul>	<p>At national level, the Committee for Economic and Financial Policies (CEFP) will act as the steering committee for Rice-SDP. The CEFP is a permanent committee of the government; it is chaired by the Minister of Economy and Finance. With respect to the Policy for Promotion of Paddy Production and Rice Export (the Rice Policy), the CEFP is responsible for monitoring, evaluation and coordination at policy level to ensure consistency and efficiency of the rice policy measures with other economic policies. For Rice-SDP, the CEFP will:</p>

Organizations	Management Roles and Responsibilities
<ul style="list-style-type: none"> <li>Provincial Steering Committee</li> </ul>	<ul style="list-style-type: none"> <li>ensure interagency cooperation at national level;</li> <li>review and advise on policy issues and implementation constraints;</li> <li>ensure integration with other donors and government related development activities;</li> <li>monitor implementation progress;</li> <li>approve annual work-plans and budgets;</li> <li>set up a multi-departmental procurement committee for the Program; and</li> <li>provide overall guidance on implementation of the Program.</li> </ul> <p>Three Provincial Steering Committees (PSC) will be established in the participating provinces to be chaired by the Deputy Governor responsible for the agricultural sector in each province. The Deputy Chairperson will be the Head of the Provincial Administration Office. The Committee will meet bi-annually or as is needed to:</p> <ul style="list-style-type: none"> <li>review implementation progress at provincial level;</li> <li>authorize allocation of funds for subprojects based on approved feasibility studies;</li> <li>approve provincial annual work-plans and budgets; and</li> <li>ensure adequate resource allocation and coordination between concerned provincial agencies.</li> </ul>
<p><b>Implementing Agencies</b></p> <ul style="list-style-type: none"> <li>Ministry of Agriculture, Forestry and Fishery</li> </ul>	<p>There will be six implementing agencies (IAs) for the Project:</p> <ul style="list-style-type: none"> <li>At the national level, the MAFF and MLMUPC, will be responsible to oversee the implementation of national initiatives pertaining to the respective ministries. In addition, the MOWRAM will be responsible for overseeing the activities of the Provincial Department of Water Resources and Meteorology (PDWRAM) in implementation of irrigation subprojects. A NIO will be established in each of the three national level agencies.</li> <li>At the provincial level, the Governor's office in each province will be responsible for coordination of subproject implementation activities in each of the three program provinces. A PIO will be established in each of the three program province.</li> <li>NIOs and PIOs will establish and manage sub-accounts and retention of supporting documents.</li> </ul> <p>MAFF will be responsible for implementation of national initiatives, as well as provision of support and guidance at provincial level to the Provincial Department of Agriculture (PDA) in implementation of agriculture development</p>

Organizations	Management Roles and Responsibilities
	activities related to the subprojects.
<ul style="list-style-type: none"> <li>• Ministry of Land Management, Urban Planning and Construction</li> </ul>	<p>MLMUPC will be responsible for implementation of national initiatives, as well as provision of support and guidance at provincial level to the Provincial Departments of Land Management, Urban Planning and Cadaster (PDLMUPC) in implementation of Commune Land-use Plans (CLUP) and Land-use Zoning.</p>
<ul style="list-style-type: none"> <li>• Ministry of Water Resources and Meteorology</li> </ul>	<p>MOWRAM will be responsible for providing support and guidance at provincial level to the PDWRAM in the implementation of irrigation subprojects; approving detailed designs of irrigation subprojects; ensure adequate water allocation for the irrigation subprojects; and process resettlement for irrigation subprojects.</p>
<ul style="list-style-type: none"> <li>• Provincial Governor's Office</li> </ul>	<p>The Governor's Office in each participating province will be responsible for:</p> <ul style="list-style-type: none"> <li>• coordination of implementation of subproject activities at provincial level;</li> <li>• coordination between provincial agencies;</li> <li>• managing the flow of funds at Province level; and</li> <li>• procurement of small shopping contracts</li> </ul>
<ul style="list-style-type: none"> <li>• ADB</li> </ul>	<p>As the lead financier for the Rice-SDP, ADB will:</p> <ul style="list-style-type: none"> <li>• finance a policy-based loan and an investment loan from Asian Development Fund resources;</li> <li>• monitor program implementation arrangements, disbursement, procurement, consultant selection, and reporting;</li> <li>• monitor schedules of activities, including funds flow;</li> <li>• review compliance with agreed procurement procedures;</li> <li>• review compliance with loan covenants;</li> <li>• monitor effectiveness of safeguard procedures;</li> <li>• analyze the outcome of the capacity building and training programs;</li> <li>• monitor conformity with ADB anti-corruption policies;</li> <li>• undertake a periodic review mission; and</li> <li>• undertake a joint midterm review mission with the government.</li> </ul>
<ul style="list-style-type: none"> <li>• Global Agriculture Food Security Program</li> </ul>	<ul style="list-style-type: none"> <li>• cofinance the Rice-SDP by providing a grant.</li> </ul>
<ul style="list-style-type: none"> <li>• ADB Strategic Climate Fund</li> </ul>	<ul style="list-style-type: none"> <li>• cofinance the Rice-SDP by providing a concessional loan and a grant.</li> </ul>

## B. Key Persons Involved in Implementation

### Executing Agency

Agency Name H.E. XXX  
Position  
Telephone  
Email address  
Office Address

### ADB

Environment, Natural Resources, and Agriculture Division (SEER) Javed H. Mir  
Director, Environment, Natural Resources and Agriculture Division (SEER)  
Southeast Asia Department (SERD)  
Telephone No.: +63 2 632 6234  
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6 ADB Avenue, Mandaluyong City  
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Mission Leader Bui Minh Giap  
National Resources and Agriculture Economist  
Environment, Natural Resources and Agriculture Division (SEER)  
Southeast Asia Department (SERD)  
Telephone No. +63 2 632 6900  
Email address: [buigm@adb.org](mailto:buigm@adb.org)

## C. Rice-SDP's Management and Implementation Structure

27. Implementation arrangements of the Rice-SDP will be aligned to the policy and regulatory structure stated in the Rice Policy to avoid duplication and minimize implementation complexity. The Committee for Economic and Financial Policies (CEFP) will assume the role of the steering committee for the Program and the Project. The CEFP is chaired by the Senior Minister of Economy and Finance and includes representation from the National Bank of Cambodia, Office of the Council of Ministers, MAFF, Ministry of Commerce (MOC), Ministry of Industry, Mines and Energy (MIME) and others. For the purpose of the Program, the CEFP will also include the participation of representatives from MOWRAM and MLMUPC and Ministry of Women's Affairs (MWA). The CEFP will ensure overall coordination and efficient implementation of the Program. The CEFP will provide strategic guidance and monitoring of program implementation activities; ensure interagency cooperation at national level; review and advice on policy issues and implementation constraints; and ensure integration with other donors and government developmental activities. The CEFP will meet bi-annually for the Program or as needed. MEF will be the executing agency for both the Program and Project, supported by the PMO.

28. **The Program.** The Program implementation period is from 1 January 2010 to 31 December 2016 and the closing date of the policy-based loan will be June 2017. The Committee for Economic and Financial Policies (CEFP) will assume the role of Rice-SDP's Steering Committee and will be chaired by the Senior Minister of the Ministry of Economy and Finance (MEF). MEF will be the Executing Agency (EA) for the Program, supported by

the Program Management Office (PMO). One policy working group for each policy theme will be established by relevant ministries, including MEF, Ministry of Agriculture, Forestry, and Fisheries (MAFF), Ministry of Industry, Mines, and Energy (MIME), and Ministry of Land Management, Urban Planning and Construction (MLMUPC).

29. **The Project.** The PMO will be established within MEF to manage the Program and ensure policy actions are implemented. The PMO will be responsible for recruitment of consultants, including the PIC, and national consultants for preparation of feasibility studies, preparation of detailed design and construction supervision, and national entities for monitoring of safeguard measures; management and withdrawal of funds, including replenishment of imprest account and sub-accounts, disbursement, and reimbursement. The PMO will also be responsible for management, coordination and supervision of the Program activities of the implementing agencies.

30. At the national level, MAFF and MLMUPC will oversee the implementation of national initiatives pertaining to the respective ministries, and MOWRAM will provide guidance and assistance to PDWRAM in each program province with respect to planning and implementation of irrigation infrastructure subprojects; approving detailed designs of irrigation subprojects; ensure adequate water allocation for the irrigation subprojects; procurement of civil works contracts; and processing of resettlement plans for irrigation subprojects.

31. MAFF will be responsible for implementation of activities related to improving services along the rice value chain from (i) improved availability and quality of commercial rice seed through CARDI, the Research Stations, and farmers cooperatives; and (ii) upgraded technical extension material for the cropping windows for rice through its Extension Department. MAFF will also be responsible for implementation of the development of land-use zoning incorporating agro-ecosystem analyses into commune land-use plans.

32. MLMUPC will be responsible for implementation of national initiatives related to output 2 to support the development of land-use zoning incorporating agro-ecosystem analyses into commune land-use plans. MLMUPC will also provide support and guidance at provincial level to PDLMUPC in implementation of CLUP and Land-use Zoning.

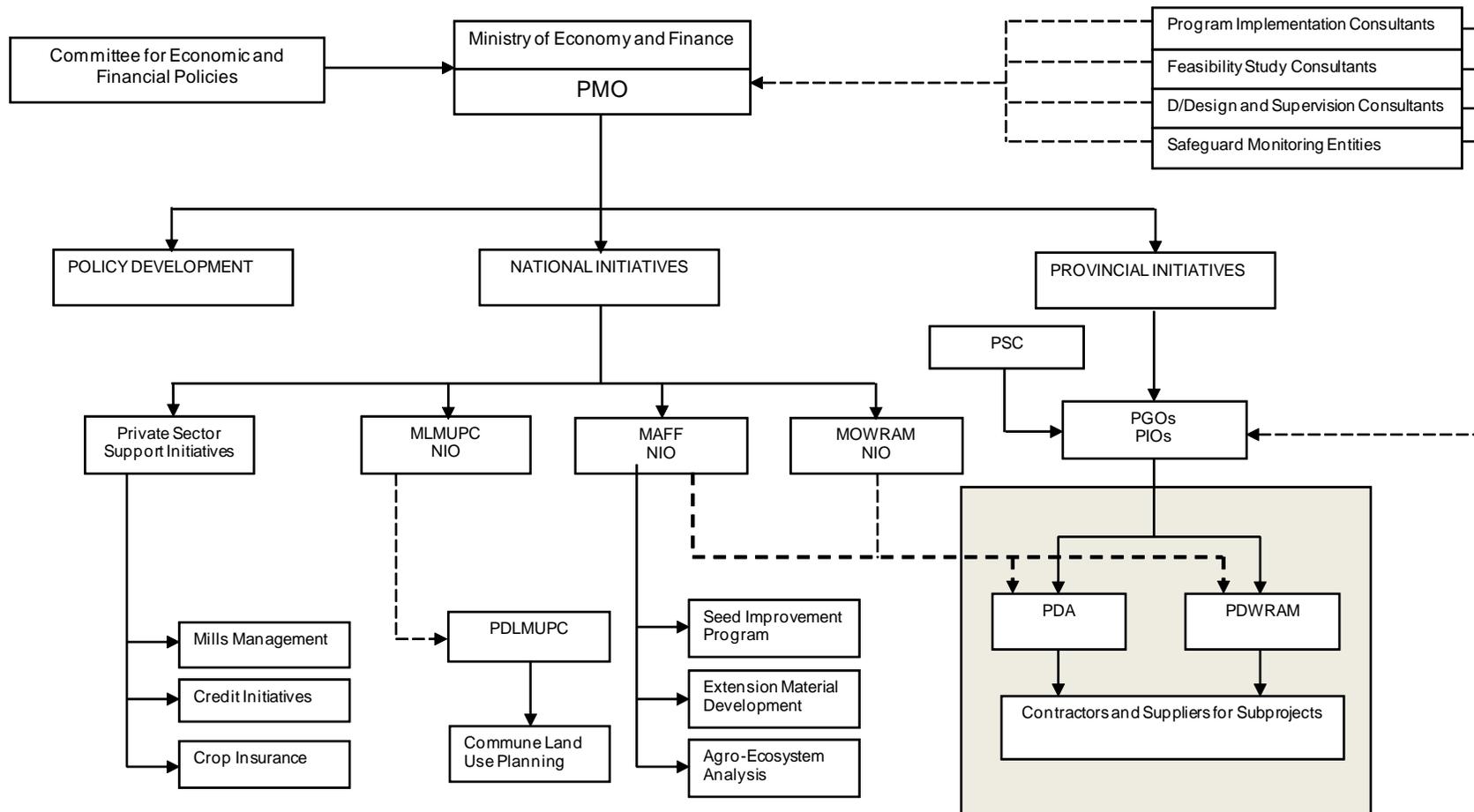
33. MAFF, MOWRAM and MLMUPC will utilize their existing departments/ divisions/ sections in charge of resettlement for reviewing and endorsing the subprojects' resettlement plans to the Inter-ministerial Resettlement Committee (IRC). In case there is no existing structure, the ministries are required to set up the resettlement units to take charge of resettlement issues after loans and grants approval. A NIO will be established in each of the three national implementing agencies.

34. At the provincial level, a Provincial Steering Committee (PSC) will be established in each participating province to provide guidance in the implementation of subprojects. The PSC will be chaired by the Deputy Governor responsible for the agricultural sector in each province. The Deputy Chairperson will be the Head of the Provincial Administration Office. Other members of the committee will include Directors of the concerned agencies including the PDA, PDWRAM, PDLMUPC, the Provincial Department of Commerce (PDC), Provincial Department of Economy and Finance (PDEF), Women's Affairs, and the district governors from districts in which subprojects are to be implemented. The PSC will meet bi-annually or as needed and will be supported by the PIO for the Rice-SDP to provide resources for their operations. Three PIOs will be established within the governor's offices of Battambang, Kampong Thom, and Prey Veng provinces respectively to carry out proposed subproject investment activities, with assistance from the PIC.

35. All significant procurement following ICB, NCB and shopping procedures will be carried out in accordance with the ADB procurement guidelines. In accordance with the provision of the government's *Standard Operation Procedures Manual* issued under sub-decree number 74 ANK dated 22 May 2012, a procurement review committee will be formed to review and approve all procurement action under the Rice-SDP. In addition a procurement committee will be established in each participating province to support and approve the procurement of precision land leveling contracts to be procured by the PIOs following shopping procedures.

36. The Rice-SDP's organization structure is shown in section D below.

### D. Rice-SDP's Organization Structure

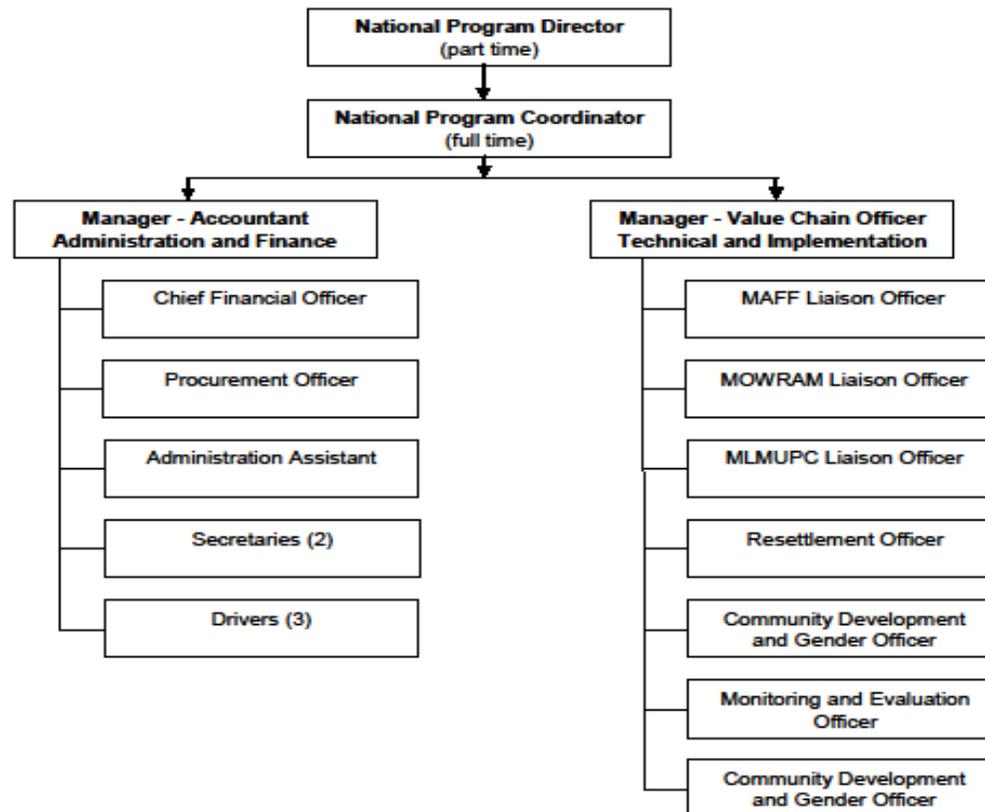


MAFF=Ministry of Agriculture, Forestry, and Fisheries  
 MLMUPC=Ministry of Land Management, Urban Planning, and Construction  
 MOWRAM=Ministry of Water Resources and Meteorology  
 NIO=National Implementation Office  
 PDA= Provincial Department of Agriculture  
 PDLMUPC=Provincial Department of Land Management, Urban Planning, and Cadastre

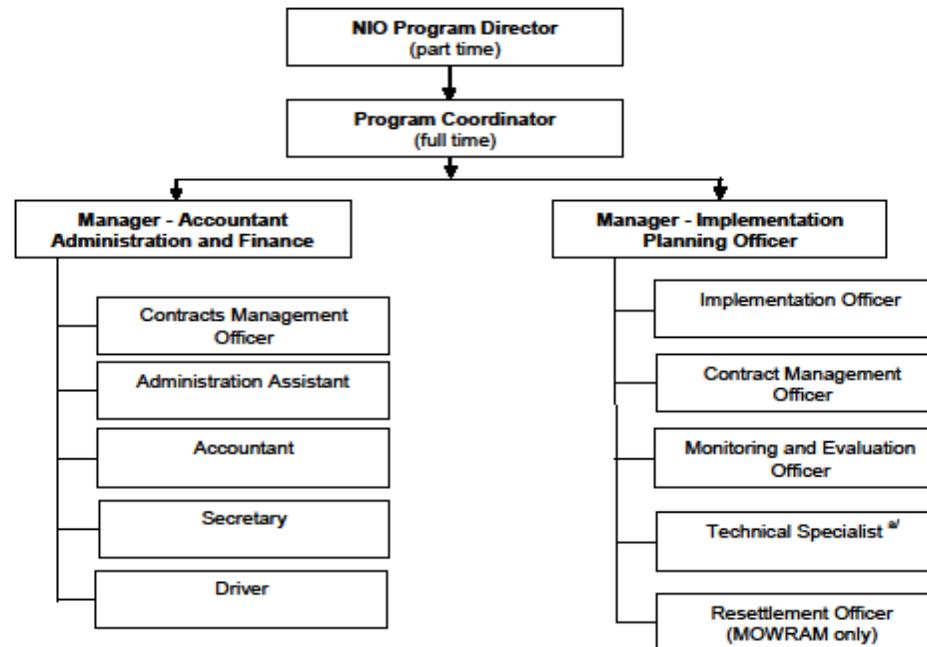
PDWRAM=Provincial Department of Water Resources and Meteorology  
 PGO = Provincial Governor's Office  
 PIO = Provincial Implementation Office  
 PMO= Program Management Office  
 PSC = Provincial Steering Committee

--- advisory/supporting function  
 — reporting function

## Program Management Office

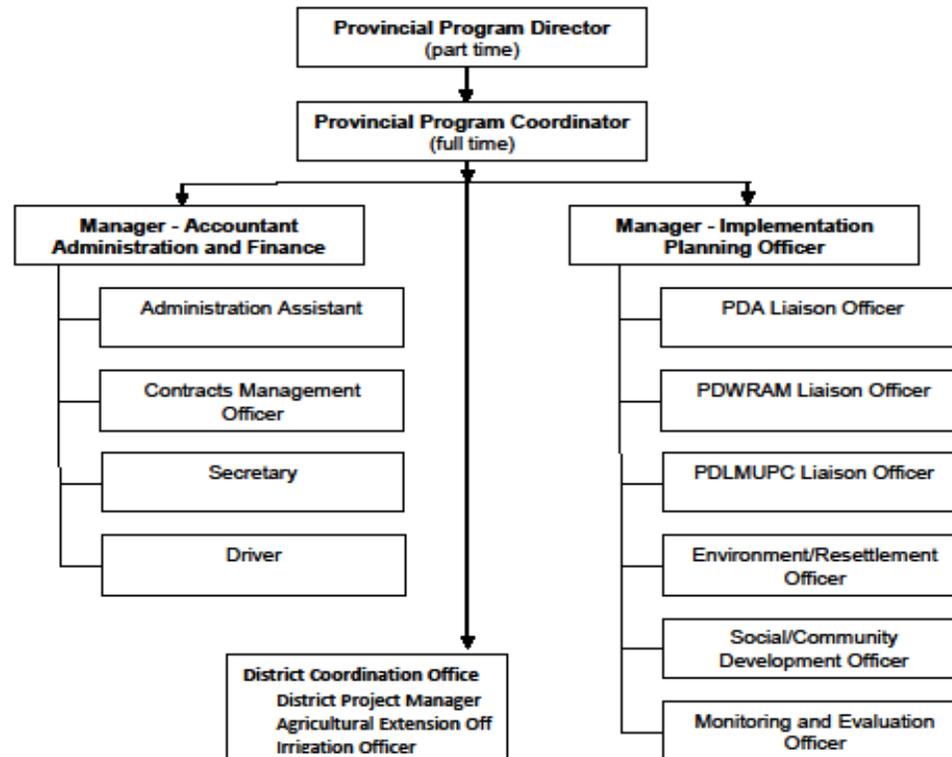


## National Implementation Office (NIO)



<sup>\*/</sup> Technical Specialists: MOWRAM - Irrigation Engineer; MAFF - Rice Agronomist; and MLMUPC - Commune Land Use Planning (CLUP) specialist.

## Provincial Implementation Office (PIO)



## E. Implementation Arrangements

### 1. Institutional Responsibilities by Outputs and Key Activities

Outputs and Activities	Responsible Agency(ies)
<b>1. Conducive Legal and Regulatory Environment Established</b>	
1.1 Establishing working groups for interagency dialogue and public discussions of the respective key policy areas	MEF, MAFF, MLMUPC, MIME (ISC), and MOC
1.2 Implementing policy actions as in Tranche 1 and 2 of the Policy Matrix	MEF, MAFF, MLMUPC, MIME (ISC) , and MOC
1.3. Producing reports on policy themes	MEF coordinating inputs from MEF, MAFF, MLMUPC, MIME (ISC), and MOC
<b>2. Agricultural Land-use Zoning Improved</b>	
2.1 Undertaking commune agro-ecosystems analysis (AEAs) to identify zones for rice cropping systems	MAFF and three project provinces (Battambang, Kampong Thom, and Prey Veng)
2.2. Incorporating the AEAs identified above into commune land use plans (CLUPs).	MLMUPC in association with MAFF
2.3. Developing three provincial rice eco-system maps	MAFF and MLMUPC (MAFF is responsible for the technical aspects of land management – the legal legitimacy is provided by MLMUPC)
<b>3. Climate Resilient Rice Value Chain Infrastructure Developed</b>	
3.1 Recruiting national consulting firms to carry out feasibility studies on subprojects for climate resilient irrigation rehabilitation and associated initiatives	MORWAM for climate resilient irrigation rehabilitation subprojects, MAFF and MOWRAM for associated initiatives
3.2 Recruiting national consulting firms to prepare feasibility studies and detailed design of paddy and commercial rice drying and storage facilities	MLMUPC with technical inputs from MAFF for paddy and commercial rice seed drying and storage facilities
3.3 Rehabilitating identified irrigation schemes	Three provincial Governor's Offices with technical inputs from MOWRAM
3.4. Establishing paddy drying and storage facilities	Three provincial Governor's Offices with technical inputs from MAFF and construction supervision from MLMUPC
3.5. Establishing seed drying and storage facilities	Three provincial Governor's Offices with technical inputs from MAFF and construction supervision from MLMUPC
3.6 Implementing associated initiatives including pilot land leveling, technical extension services, farmer group support, marketing facilitation, and contract farming	Three provincial Governor's Offices with technical inputs from MAFF and MOWRAM
<b>4. Enhanced Rice Value Chain Support Services</b>	
<b>Increased Availability of Quality Rice Seed</b>	
4.1 Developing a national seed certification scheme	MAFF's NIO in association with CARDI
4.2 Producing foundation and certified seed under contract for selected rice varieties involving CARDI and the private sector	MAFF's NIO in association with CARDI and private seed companies
<b>Expanded and Developed Technical Extension Services</b>	
4.3 Revising the six "technology information procedures" on rice production incorporating good agricultural practices	MAFF's NIO with the cooperation of GDA
4.4 Developing a mass media extension material for use by extension services country-wide	MAFF's NIO with the cooperation of GDA's DOE
<b>Enhanced Business Management Capacities</b>	

<b>Outputs and Activities</b>	<b>Responsible Agency(ies)</b>
4.5 Studying the adoption of bulk handling	MAFF's NIO and private sector service providers (to be engaged) with the cooperation of MOC
4.6 Provide technical assistance to improve mill operation and management to 30 rice mills	MAFF's NIO and private sector service providers (to be engaged) with the cooperation of MOC
4.7 Organizing three study tours and training for millers in neighboring countries to investigate modern milling technologies	MAFF's NIO and private sector service providers (to be engaged)
<b>Improved Access to and Reduced Cost of Finance</b>	
4.8 Developing capacities of financial institutions to appreciate diverse loan demand by rice value chain stakeholders and for the latter to understand FIs' loan products	PMO and MAFF's NIO and private sector service providers (to be engaged)
<b>5. Feasibility Study, Design and Pilot Testing of WICI</b>	
5.1 Engaging an international consulting firm in association with a national consulting firm for undertaking feasibility study	PMO with technical inputs from MEF, MOWRAM's NIO and MAFF's NIO
5.2 Upgrading automatic weather stations in selected areas	MOWRAM's NIO
5.3 Piloting WICI in selected areas	The international consulting firm in association with the national consulting firm
5.4 Evaluating the results of WICI in pilot areas	Independent evaluators, to be engaged by PMO
<b>6. Efficient Project Management and Implementation</b>	
6.1 Establishing and operationalizing PMO, NIOs and PIOs	MEF establishing PMO; MOWRAM, MAFF, and MLMUPC establishing respective NIOs; three provincial Governor's Officer establishing PIOs
6.2 Appointing and mobilizing PICs	MEF/PMO with technical inputs from MOWRAM's NIO, MAFF's NIO, and MLMUPC's NIO
6.3 Designing and operating Rice-SDP's gender disaggregated program performance monitoring system	PMO with technical inputs from MOWRAM's NIO, MAFF's NIO, and MLMUPC's NIO
6.4 Undertaking annual audits, mid-term review and the preparation of a program completion report	PMO with technical inputs from MOWRAM's NIO, MAFF's NIO, and MLMUPC's NIO; annual audit by independent auditing firm(s)

AEA = agro-ecosystems analysis, CARDI = Cambodia Agricultural Research and Development Institute, CLUP = commune land-use plan, GDA = General Directorate of Agriculture, DOE = Department of Extension, FI = financial institution, ISC = Institute of Standards of Cambodia, MAFF = Ministry of Agriculture Fisheries and Forestry, MLMUPC = Ministry of Land Management, Urban Planning and Construction, MOC = Ministry of Commerce, NIO = National Implementation Office, PIC = program implementation consultants, PIO = Provincial Implementation Office, PMO = Program Management Office, and WICI = weather-indexed crop insurance.

## **2. National Initiatives**

### **a. Implemented by MAFF**

37. National initiatives to be implemented by MAFF include (i) undertaking agro-ecosystem analyses in 90 communes in selected communes of participating provinces; (ii) integrating the results of the AEAs into commune development plans; (iii) updating the soil classification maps in provinces surrounding the Tonle Sap; (iv) preparing the rice-

ecosystem map for the main rice growing areas of the country; (v) establishing a seeds laboratory in GDA; (vi) reviewing and updating rice related technical information procedures (vii) preparing media material for release to radio and TV stations concerning technical extension services; (viii) the development of a certification system for rice seed, (ix) the contracted production of reserve seed material and certified seed material by CARDI and agricultural research stations respectively; and (x) other initiatives in support of national value chain activities.

38. These activities will be implemented using MAFF staff as part of the routine work of the responsible departments in GDA. The National Implementation Office (NIO) for MAFF will be responsible for coordinating these initiatives in cooperation with the Department of Planning and Statistics of MAFF. Where procurement is involved in the implementation of these activities, the NIO will carry out the procurement in accordance with the details outlined in this PAM. The technical basis for the procurement will be provided by their relevant department within MAFF. Wherever possible, service contracts will be used to have concerned departments involved in implementation. For example, CARDI will be contracted to produce the required volume of foundation seed of the nominated varieties under a performance based contract between Rice-SDP and CARDI that will be administered by the NIO. Where implementation involves the provincial PDAs, MAFF will incorporate Rice-SDP initiatives in the annual plans and activities in the provinces will be coordinated through the PDA representative assigned to coordinate Rice-SDP activities in the province.

39. In the case of initiatives directed at improving access to credit and supporting the business management skills of millers, expertise does not reside within MAFF/PDA entities in the areas needed. In this event, the NIO shall, with assistance of the Program Implementation (PIO) specialists, draft terms of reference for the activities to be undertaken and procure the services in an open bidding process from a list of pre-qualified providers. These might include private consulting companies or NGOs operating in the respective technical area. For example, business management capacity building will be carried out by a suitably qualified private entity with proven expertise in this area. This approach is similar to that undertaken under the IFC-financed support to the Cambodian Rice Sector. The NIO in MAFF will be responsible for recruiting this specialist expertise and executing a contract for the provision of services.

#### **b. Implemented by MLMUPC**

40. National initiatives to be implemented by MLMUPC are limited to the preparation of commune land-use plans as provided for under the Law. The NIO located in MLMUPC will be responsible for coordinating the establishment and operations of the land-use planning department within MLMUPC to prepare the commune land-use plans incorporating the AEAs prepared in consultation with MAFF. The use of agricultural land is a specialized field and requires the input of the technical specialists. These activities will be implemented using MLMUPC staff as part of the routine work of the responsible departments in Land Management. The NIO for MLMUPC will be responsible for coordinating these initiatives in cooperation with the Department of Land Management. The NIO will carry out the procurement in the implementation of these activities in accordance with the details outlined in this PAM. The technical basis for the procurement will be provided by their relevant department within MLMUPC. Wherever possible, service contracts will be used to have concerned departments involved in implementation. Where implementation involves the provincial DLMUPCs, MLMUPC will incorporate Rice-SDP initiatives in the annual plans and activities in the provinces will be coordinated through the provincial representative assigned to coordinate Rice-SDP activities in the province.

### **c. Weather-indexed Crop Insurance (WICI) Development and Piloting**

41. The Cambodian rice growing communities already face considerable difficulty from climate variability, with severe flooding and significant droughts occurring frequently. This will be exacerbated by climate change. Many rice growers, particularly small, single household operations and smaller or medium businesses, are highly vulnerable to the financial consequences of catastrophic flood and drought. Given the vulnerability of Cambodia to the impacts of climate change, in particular, that of the agricultural sector, which is dominated by rice, the weather-indexed crop insurance (WICI) may serve as an appropriate adaptation option for the farmers vulnerable to such impacts. Under a WICI scheme, the indemnity is based on realizations of a specific weather parameter measured over a pre-specified period of time at a particular weather station. The introduction of WICI on a pilot basis allows both insurers and rice growers to become familiar with crop insurance and identify ways of ensuring that insurance can remain of benefit to farmers as well as commercially viable for insurance companies. It has been reported in various studies that WICI works best where and when other services are in place, such as access to credit, improved seeds and inputs, markets and functioning supply chains, and advisory services. Insurance often cannot add value to a farmer's livelihood unless their income can be enhanced through availability of other services.<sup>16</sup> The combination of a program and project interventions under the Rice-SDP provides an ideal opportunity to design and pilot test the WICI in Cambodia,

42. As the 2011 study by the World Bank points out, the underlying index to be a sound proxy for loss has to be based upon an objective measure (for example, rainfall, wind speed, temperature) that exhibits a strong correlation with the variable of interest (in this case, crop yield). Furthermore, the weather variable that can form an index must satisfy the following properties: (i) observable and easily measured; (ii) objective; (iii) transparent; (iv) independently verifiable; (v) reported in a timely manner; (vi) consistent over time; and (vii) experienced over a wide area. Advantages of weather-indexed insurance as identified in the World Bank study, reiterated in several other studies as well, include (i) reduced risk of adverse selection; (ii) reduced moral hazard; (iii) elimination of field loss assessment; (iv) reduced information requirements and bureaucracy; (v) facilitation of reinsurance; (vi) transparency; and (vii) facilitating access to financial services. Along with these advantages, the study also lists several challenges, which acquire significance in the context of developing countries like Cambodia. These include (i) basis risk; (ii) data availability; (iii) integrity of weather stations; (iv) need for farmer/insurer/regulator capacity building and education; (v) currently limited product options for different weather risks; and (vi) research, local adaptation, and scalability.

43. The World Bank study goes on to say that while weather-indexed insurance is rather new to agriculture, it holds significant promise when linked to climate change, given the probability of adverse climate related events and the likely frequency and uncertainty of their occurrence. The concept of a weather indexed crop insurance has been pilot tested in a number of other Asian countries where it has been successful. It was introduced by Sompo Japan Thailand<sup>17</sup> in 2010 in Thailand in cooperation with the Japan Bank for International Cooperation and the participation of 1,158 farmers in Khon Kaen province. Following its initial success, Sompo Japan Thailand expanded the sales area of coverage in an effort to mitigate loss suffered by rice farmers due to drought in 5 provinces in Nakhornratchasima on 17 February 2011 and in other 4 provinces in Northeast Thailand as of February 22, 2011.<sup>18</sup> The Philippines Crop Insurance Corporation has paid an initial amount of PhP6.61 million to

<sup>16</sup> World Bank. 2011. *Weather Index Insurance for Agriculture: Guidance for Development Practitioners. Agriculture and Rural Development Discussion Paper 50*. Washington D.C.

<sup>17</sup> Reference: <http://www.sjnk.co.th/>

<sup>18</sup> Sompo Japan Insurance (Thailand) Co. Ltd. Sales area expansion of Weather Index Insurance. February 22, 2011 (Thai News Release 22 February 2011)

Southern Luzon farmers who suffered damages from extreme 'habagat' or southwest monsoon rains and typhoon *Gener* which hit the country in August 2012.<sup>19</sup> India has operated a (subsidized) area yield insurance, National Agricultural Insurance Scheme of India (NAIS), for 20 years. The success of the BASIX–ICICI Lombard product sparked broad interest from other insurers, including the state-owned Agricultural Insurance Company of India (AICI) to enter this market. Swiss Re estimates that more than 539,000 Indian farmers have purchased weather index insurance to date. The Indian experience has also given rise to similar pilots and feasibility studies that target individual farmers in many countries around the world, including Thailand, Indonesia, Malawi, Kenya, and Nicaragua.<sup>20</sup> Despite these successes, however, there is a need for a comprehensive assessment to determine the appropriateness and applicability of WICI in Cambodia.

44. Development of a WICI scheme will be undertaken under Rice-SDP as a means of reducing the risk associated with rice production. The rationale is that farmers are currently reluctant to commit scarce cash resources to buy quality seed material as they are exposed to the vagaries of weather and regularly lose crops due to extended periods of inundation early in their early post germination period. The development of a crop insurance product will allow farmers to replace seed from flood-affected crops without affecting their cash resource base. This will allow farmers to commit resources to buying improved quality seed on an annual basis rather than relying on retained seed from the previous crop that is currently widely practiced with its direct impact on reducing productivity.

45. Discussions with insurance companies and financing institutions in Cambodia have indicated their willingness to establish crop insurance programs, but are reluctant to proceed given the poor state of meteorological data at both national and local levels making the assessment of risk and therefore development of premium structures difficult. There is adequate capability within banks and other financial institutions at provincial level to administer a crop insurance program. Moreover, willingness of the farmers to participate and an enabling policy environment would be necessary prerequisites for its operation. Under the Rice-SDP, all these aspects will be analyzed and assessed and the feasibility WICI determined prior to its pilot testing in selected areas.

46. Several factors contribute to the development of an appropriate WICI. These include availability of historical weather data including precipitation and the intensity of precipitation. Such data is not readily available over a wide geographic area in Cambodia as many of the meteorological stations have ceased collecting routine data because of limited resources and failure to maintain measuring equipment. The WICI feasibility study referred to earlier will include a comprehensive assessment of current state of the automatic weather stations in the subproject areas, prime candidates for pilot testing, and make recommendations to upgrade them to the required standard.

47. In order to develop an appropriate WICI package, several elements need to be covered in order to establish the risk associated with various weather-related events such as flooding in rural areas. There needs to be an insurance entity to assess the risk associated with different levels and extreme weather events. The insurance company needs to establish premiums needed to cover the risk and to affect reinsurance in the event of payments being triggered in the early years of operation. As farmers are most likely unable to find the cash to pay insurance premiums, a mechanism for incorporating these insurance premiums together with the cost of other input supplies and the logical items most used by farmers are either seed material or fertilizers. On this basis, the insurance product will need to develop a

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<sup>19</sup> PCIC Administrator. 18 October 2012. (<http://pcic.gov.ph/index.php/news/headline/coop-farmers-in-laguna-occidental-mindoro-get-habagat-payments/>)

<sup>20</sup> World Bank. 2011. *Weather Index Insurance for Agriculture: Guidance for Development Practitioners. Agriculture and Rural Development Discussion Paper 50.* Washington D.C.

mechanism for adding insurance premiums to the cost of input supplies and will therefore need the cooperation of a number of input suppliers, should this be found to be the most appropriate option. Alternatively, options to establish a Trust Fund to address this constraint regarding payment of premiums by poor and vulnerable farmers will be explored. The third element needed is the financial institution to disburse payments when certain conditions trigger payment (being weather indexed, a defined set of circumstances will trigger payment rather than having farmers claim against a policy). The final entity needed is a communication mechanism whereby weather conditions can be communicated to insurance companies in order to trigger payments. This will most likely involve the services of a communication company operating in rural Cambodia such as Mobitel or similar other entity.

48. The development and implementation of the WICI scheme will be undertaken in two phases. Phase 1 will result in the determination of feasibility for introduction of WICI on a pilot scale in Cambodia, and include an assessment of the requirements for its design, establishment and operation in Phase 2. The feasibility study will entail, among other things, assessment of (i) the current status of weather data and monitoring infrastructure and operational capacity; (ii) the availability and accessibility of sound agronomic data to assess crop vulnerability needed to design an index; (iii) the availability and access to financial data to calculate the level of loss per farmer across the area to be covered by the index; (iv) the status of the local insurance industry and relevant public sector and private sector institutions in terms of structures, capacities, experience; (v) the policy environment that will facilitate adoption of WICI; and (vi) stakeholder consultation to assess their willingness to participate. It would also require identification and selection of potential sites and the crops where WICI would be introduced on a pilot scale. The feasibility study will include a phased implementation plan, identifying various milestones during the course of implementation that would eventually lead to pilot testing of WICI in selected areas in Cambodia in Phase 2.<sup>21, 22</sup>

49. Phase 2 will comprise design of the WICI scheme, upgrading of the required institutional infrastructure and capacity building, identification and selection of potential sites and the crops where WICI would be introduced on a pilot scale. Based on the feasibility study, phase 2 may include procurement of materials and equipment, upgrading of automatic weather stations and establishing links to World Meteorological Organization (WMO) Global Telecommunication System (GTS), capacity building, and technical expertise.

50. For undertaking the feasibility study, and the design, establishment and pilot testing of WICI, in case it is determined to be feasible, there will be a need for the services of a team of experts led by an weather-indexed crop insurance design and application expert. Other expertise needed to assist the team leader may include meteorology, hydrology, agronomy, financing, institutional analysis, social development, climate change projections and downscaling, and monitoring and evaluation, among others

51. An internationally reputed firm, working in association with a national firm, will be selected on a quality-based selection (QBS) for undertaking the feasibility study, and the design, establishment and pilot testing of WICI, should it be found feasible. The selected firm/s will work directly under the PMO under the overall guidance of PIC. The terms of reference are as follows:<sup>23</sup>

### **Phase 1:**

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<sup>21</sup> In this context, it may be relevant to refer to the World Bank report, Annex 11: Agriculture Insurance Systems Development in Ukraine, which lists 25 steps to develop a standard product/program (Figure A11.4: Steps to Develop a Standard Product/Program).

<sup>22</sup> Further guidance for such an assessment is available in World Bank (2011). *Weather Index Insurance for Agriculture: Guidance for Development Practitioners. Agriculture and Rural Development Discussion Paper 50.* Washington D.C.

<sup>23</sup> Based on guidance provided in the World Bank (2011) publication, referred to above.

52. **Weather data collection, analysis and monitoring infrastructure and capacity** includes assessment of the current status of weather data and monitoring infrastructure and operational capacity and the reliability and quality of weather data. This will include an assessment of the density, security, and quality of the weather station network, including an assessment of the existence and operational capability of the existing network of automated stations that report daily to a central MET Node and are linked to WMO/ GTS, in case such a link exists. Based on the assessment, recommendation will be made to upgrade the network, if needed, to a standard necessary for operation of WICI.

53. **Assessment of the availability and access to sound agronomic data** to assess the level of crop vulnerability needed to design an index that will truly be representative of loss, specific to crops and in relation to the specific variety being planted. This information, once analyzed, will help determine if the whole crop system is amenable to indexing. Alternate options may also need to be explored.

54. **Assessment of availability and access to financial data** will be needed to calculate the level of loss per farmer across the area (the selected subproject area) to be covered by the index. This will cover (i) input costs that are based on input usage and unit cost for those inputs; (ii) credit amount as a factor of input costs plus any additional financing that the farmer required; and (iii) loss of income based on the lost production and a set value per unit of production. Therefore, data will be required on input costs, costs of labor, interest rates, and so on.

55. **Institutional assessment** of the status of the local insurance industry and relevant public sector and private sector institutions, in terms of structures, capacities, experience to underwrite WICI policies, will be undertaken. This will include assessment of capacity building needs, technical assistance that may be required, and willingness of the relevant institutions in offering such services/products.

56. **Assessment of the current legal and regulatory framework** relevant to crop insurance, including weather index-based scheme, should such a system be in place, will be undertaken. In case such a system does not exist, it will be necessary to make recommendations regarding the establishment of a legal and regulatory framework conducive to WICI. The assessment will clearly identify the prerequisites necessary for pilot testing and the need for strengthening the existing frameworks to facilitate pilot testing in selected areas.

57. **Stakeholder consultation** will be undertaken to assess the willingness or otherwise of key stakeholders among the public or private sector agencies, including farm input providers, NGOs or civil society organizations and the potential farmers' beneficiaries. Since implementation of a WICI product requires coordination of a large number of stakeholders and a larger number of activities to be undertaken, the above assessment will facilitate the identification of key players/institutions that will be most appropriate for its implementation. The assessment will also include an assessment of existing capacities of the delivery channels and identification of deficiencies that should be addressed. Based on this assessment, a determination will be made as to the most appropriate delivery mechanisms and the institutions that will be responsible.

58. **Options for setting up a Trust Fund to operate the WICI.** The feasibility study will consider all possible options for operation of the WICI, which will, among others, include (a) public sector administered with the involvement of other government agencies with details for their internal collaboration, (b) public private partnership, identifying the partners that would be willing to participate, (c) completely private sector (insurance entity), either national or international or bilateral collaboration, or (d) setting up of a Trust Fund operated under a

PPP arrangement and overseen and supervised by a Trust Fund Committee representing the public sector, private sector, and donors. In the context of the Trust Fund, possibilities of cofinancing by other development partners would be explored. In such a case, the contributors would become members of the Trust fund Committee.<sup>24</sup>

59. The feasibility study will include an appropriate **Monitoring and Evaluation** system for reporting progress, performance monitoring and evaluation will be designed under the feasibility study, and include internal and external audits and the arrangements for such audits. The evaluation would test the robustness of WICI in Cambodia and the potential for up-scaling within and outside the country.

60. The feasibility study will provide details as to the **Implementation Arrangements** for the two phases of the WICI development and pilot testing, including approaches, procedures and criteria for identification and selection of areas for pilot testing, procurement of materials and equipment, arrangements for upgrading the existing meteorological stations to automatic weather stations or installation of new automatic stations and linked to a central node and to the relevant WMO GTS database. The feasibility study will also include the procedures for capacity building at the central, subproject, and local level for the system to be operational and effective.

61. At the conclusion of Phase 1, the feasibility study will be submitted for consideration by ADB and the government. Approval of the feasibility study will trigger the initiation of Phase 2.

#### **Phase 2:**

62. **Development of the WICI Scheme:** After completing the above assessments, the consultant/s will (i) review existing weather records as appropriate for a WICI scheme; (ii) carry out a risk assessment analysis relating the incidence of categories of risk from flooding and drought and the impact these will have on crop production; (iii) develop premiums needed for farmers to receive cover under the WICI scheme; (iv) develop trigger points for the payment of monies under the scheme; (v) based on the risk categories developed, define payout levels for each category of event for which the policy will provide cover; (vi) develop the mechanisms for the payment of insurance premiums via a levy on agricultural input supplies to be collected by input suppliers or other possible options; (vii) develop the mechanism with financial institutions for the disbursement of payments under the insurance policy relating to defined levels of weather events; and (viii) develop the objective measures that will be used to trigger insurance payments under the WICI scheme.

63. **Piloting WICI in Selected Areas:** Subject to a positive outcome of Phase 1 and in accordance with the recommendation of the feasibility study agreed by ADB and the government, the selected firm/s will carry out the following in Phase II activities (i) undertake identification of target sites for pilot testing in the three participating provinces of Battambang, Kampong Thom, and Prey Veng; (ii) initiate upgrading of automatic weather stations as recommended under the feasibility study, including delivery and installation of necessary equipment to record weather events; (iii) identify service providers (insurance companies) who express interest in undertaking the pilot testing in selected areas; (iv) develop and disseminate promotional materials explaining the conceptual framework and operation of the WICI scheme in the target areas; (v) undertake capacity building through training and workshops targeted at (a) agricultural extension staff in participating provinces and districts, (b) financial institutions involved in the implementation of the pilot project and

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<sup>24</sup> The Trust Fund is intended to mobilize resources from interested stakeholders in support of the replication of the scheme if it is successfully piloted. The SCF grant allocation of \$2.0 million for crop insurance is only for design and implementation of the pilot, and not for funding of the Trust Fund.

participating input suppliers in the operations of the scheme; (vi) establish the Trust Fund, should it be found as an appropriate option, or alternative procedures for administration of WICI including collection of premiums and disbursement of the WICI benefits, to operationalize WICI; (vii) ensure appropriate and adequate supervision of implementation of the WICI pilot; (viii) evaluate the results of the pilot, in line with the monitoring and evaluation plan, including structured series of interviews among stakeholders involved in the pilot testing on an annual basis; and (ix) consolidate annual survey results into an overall impact assessment of the scheme and make appropriate recommendations for up-scaling or expansion of the WICI in other areas of the country.

### **3. Provincial Subproject Implementation**

64. A number of subprojects will be carried out in each participating province. The subprojects may be of three different groups: (i) rehabilitation of existing irrigation, drainage and flood control systems; (ii) paddy drying and storage facilities to be operated by the private sector under public private partnership (PPP) arrangements; and (iii) rice seed drying and storage facilities to be operated by private sector under PPP arrangements.<sup>25</sup> This section addresses the mechanism for implementation of infrastructure rehabilitation subprojects.

#### **a. Subprojects Identification and Selection**

65. Subprojects submitted by the provincial governments for financing under the Program have been pre-screened to ensure consistency with eligibility criteria including ADB and the government's social and environmental safeguards. The following eligibility criteria, which were agreed between the government and ADB were used for the pre-screening of subprojects:

- the proposed subproject must be located in rural area where the majority of beneficiaries are likely to depend on rice cultivation for their primary livelihood;
- the proposed subproject must be located in an area that has adequate 12 months/year access to the road network, and in relative proximity to an exit point for export and/or access to rail or waterway for export;
- the proposed subproject must have demonstrated water availability in sufficient quantity and quality to ensure the intended benefits of the project can be achieved;
- there must be a demonstrated commitment to the subproject from local government authorities;
- there must be a commitment from project beneficiaries to cooperate amongst participating farmers to secure benefits from mechanized production;
- the proposed subproject must contribute to local government strategic objectives and be included in the Commune Investment Plan;
- the proposed subproject must be expected to contribute to increased rice exports;
- the total estimated investment cost must be more than \$500,000 but less than \$2.0 million for irrigation subprojects and up to \$4.0 million for grain handling and storage facilities;
- the O&M arrangements must be clearly defined and achievable;

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<sup>25</sup> The details and criteria for PPP operators are covered in Section 3 - Public Private Partnerships.

- farmers must be willing to organize in Farmers Water Users Communities (FWUC) for irrigation subprojects;
- each proposed subproject must have no significant resettlement or land compensation implications as outlined in the ADB Safeguard Policy Statement (June 2009) for categories B or C for resettlement, nor any outstanding social safeguard issues;
- each proposed subproject must have no significant potential environmental impact as outlined in the ADB Safeguard Policy Statement (June 2009);
- the proposed subproject must not be adjoined to, or passing through an existing or proposed protected area;
- the proposed subproject must not be located within the Tonle Sap Biosphere Reserve; and
- the proposed subproject must be located in an area that is, or is planned to be zoned for agriculture production.

66. In addition to the three representative subprojects (one in each of the three provinces of Battambang, Kampong Thom, and Prey Veng), a total of 30 subprojects have been pre-screened for potential financing under the Rice-SDP's investment project. The list of pre-screened eligible subprojects is presented in Supplementary Document 1.

#### **b. Subproject Preparation and Implementation**

67. Planning of subproject activities requires careful consideration of the timing of the rainy season. During the wet season, limited if any construction activity can take place as a result of the heavy downpour which render earthwork nearly impossible. Three representative subprojects have been prepared by the PPTA team up to the Feasibility Study stage to ensure early implementation of one subproject in each province. For these three representative subprojects, recruitment of national consultants for preparation of detailed design, and supervision of construction will begin shortly after fielding of the PIC so that the construction can begin before the onset of the 2013/14 rainy season. For all other subprojects the first step will be the recruitment of national consultants for preparation of feasibility study. Overall, processing of each eligible subproject will follow the following steps:

- preparation of feasibility study by national consultants to be recruited by the PMO;
- preparation of detailed design by national consultants to be recruited by the PMO;
- updating of resettlement plans and preparation of environment management plans;
- preparation of tender documents by the PMO assisted by the PIC;
- tendering for construction works by the PMO assisted by the PIC;
- implementation of resettlement plans and provision of required compensation to project affected people before issuing instruction to proceed to contractors;
- implementation of construction works;
- monitoring of safeguard measures by national entities to be recruited by the PMO;
- supervision of construction by national consultants to be recruited by PMO; and

- commissioning, training, and handover.

**c. Preparation of Feasibility Studies**

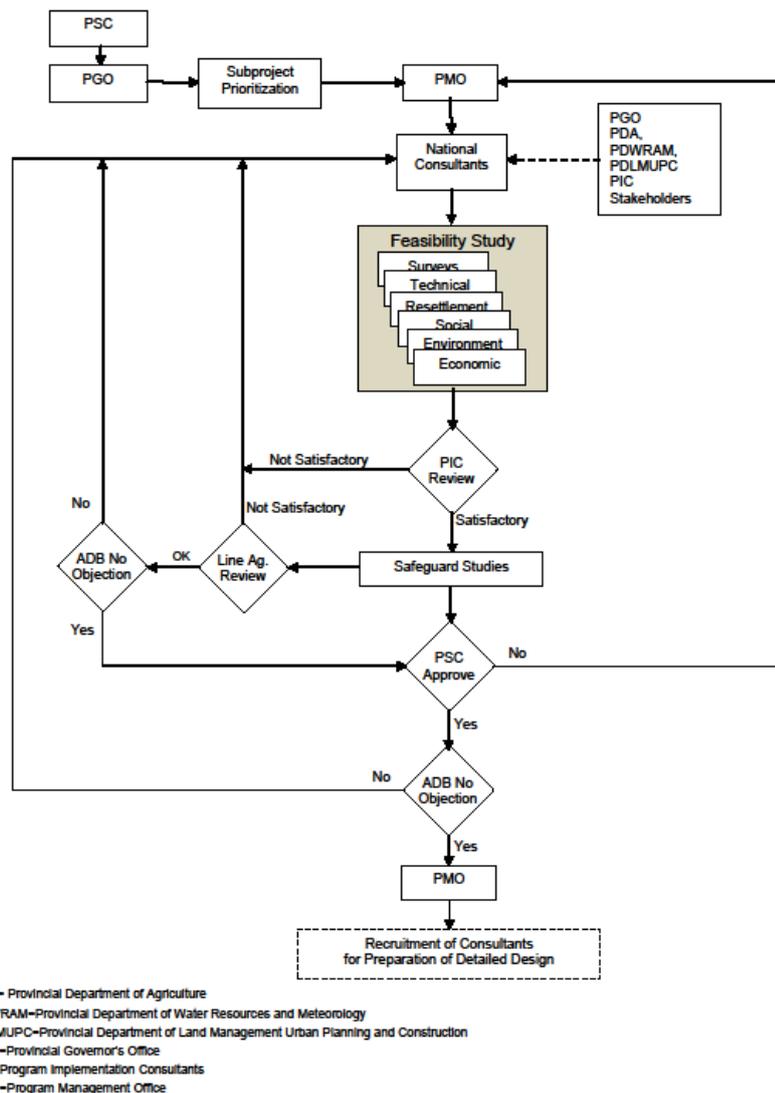
68. The preparation of feasibility studies will be carried out by national consultants to be recruited by the PMO following Consultants' Qualifications Selection (CQS) or in some case, Quality Based Selection (QBS) depending on the estimated value of the contracts. Feasibility studies including social and environmental safeguard studies will be prepared following the model developed by the PPTA for the three representative subprojects. The TORs for the preparation of feasibility studies will be prepared by the PMO with assistance from the PIC.

69. The PIC will provide support and guidance to the national consultants particularly in the areas of preparation of social and environmental safeguard studies, economic analysis to ensure compliance with ADB requirements and regulations, and climate change projections and adaptation options, as may be required. The PIC will also assist the PMO in the review of feasibility studies and social and economic safeguards studies. The review must confirm the eligibility of each subprojects based on the original eligibility criteria as well as the following criteria to determine the feasibility of each subproject:

- the candidate subproject is shown to be technically feasible and the expected benefits have been clearly identified;
- the candidate subproject is expected to have an EIRR of at least 12%;
- in case of irrigation subproject availability of water supply has been confirmed through proper hydrological studies;
- procurement packages have been clearly identified as well as the proposed methods of procurement;
- cost estimates have been clearly defined;
- financing plan for O&M has been defined;
- community consultation regarding the subproject have been held in concerned communes/villages, and measures for future public consultations and supervision identified;
- the candidate subproject is shown to have no major negative environmental or social impacts, and mitigation measures have been defined for minor impacts; and
- the candidate subproject is shown to have no significant resettlement impacts, and if categorized as Category B, a resettlement plan has been prepared in accordance with the Resettlement Framework and ADB's Safeguards Policy Statement.

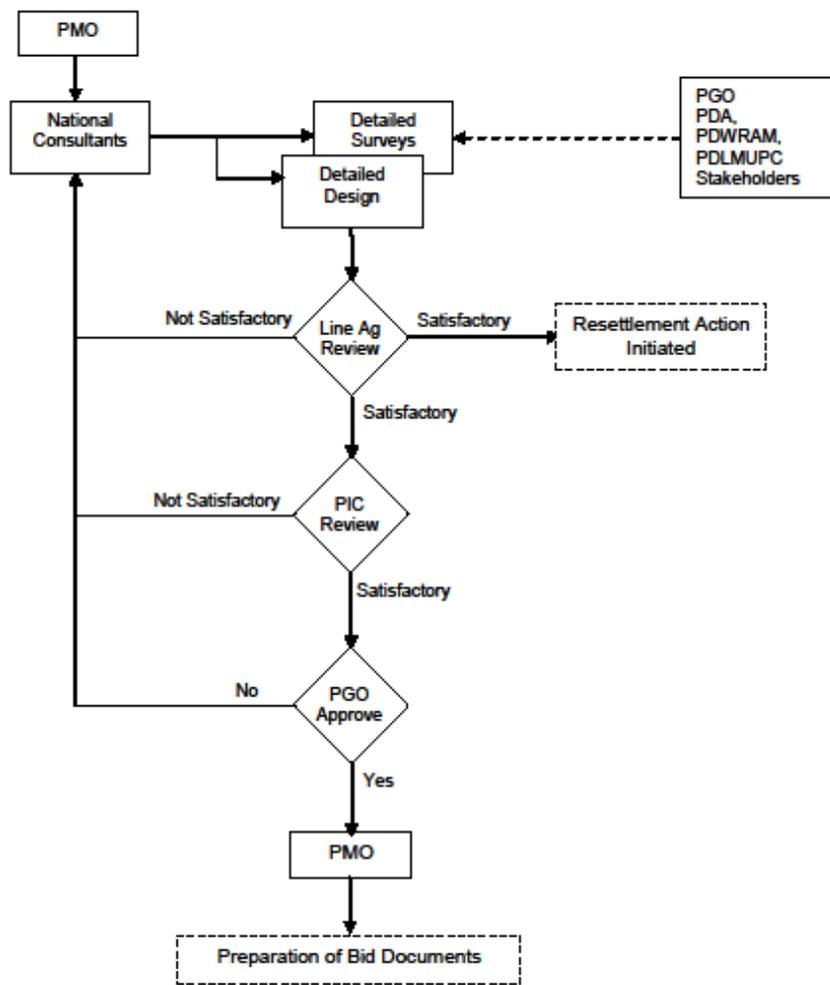
70. In case a candidate subproject does not meet the above criteria, it will be replaced by the next priority candidate subproject for the respective province under the list of eligible subprojects. If candidate subprojects not listed in the list of eligible subprojects are considered, they will be examined and screened with the support from an independent consultant acceptable to both ADB and the EA, and submitted to ADB for approval.

71. After the review of the feasibility studies by the PIC and necessary adjustment as required, all safeguard studies will be submitted to ADB for no-objection. Following ratification by the provincial Governor's office and no objection from ADB on the safeguard studies, the feasibility study will be submitted to the PSC through PMO to authorize the allocation of project funds for the preparation of the next stage of preparation. The diagram below shows a summary work flow for the preparation and approval process for feasibility studies.



#### d. Preparation of Detailed Design

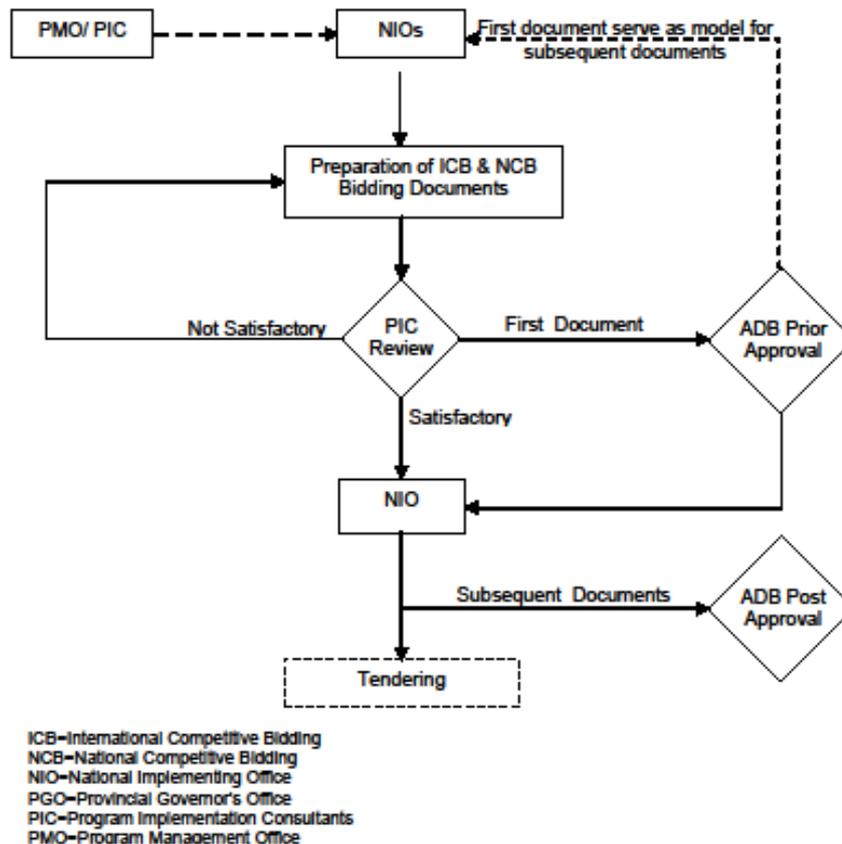
72. Once the feasibility studies have been approved, the PMO will recruit national consultants for preparation of detailed design. Detailed design of subprojects will take due account of projected climate change impacts and incorporate design features that enhance resilience of the interventions, as appropriate. The provincial line agencies will assist the national consultants in carrying out the necessary surveys and the relevant line agencies as well as the PIC will provide technical support to the national consultants as required. The detailed designs will be reviewed by the relevant line agencies to ensure compliance with standards and regulations of the government. Once approved by the relevant technical line agencies resettlement action will be initiated whenever required. The PIC will review the detailed design to ensure compliance with appropriate standards and resettlement as well as the Environmental Management Plan (EMP) with ADB safeguards statement. The provincial Governor's office will review and approve the detailed design before the PMO can initiate the preparation of bidding documents. The diagram below shows a summary work flow for the preparation and approval process for detailed design of subprojects:



PDA- Provincial Department of Agriculture  
 PDWRAM-Provincial Department of Water Resources and Meteorology  
 PDLMUJPC-Provincial Department of Land Management Urban Planning and Construction  
 PGO-Provincial Governor's Office  
 PIC-Program Implementation Consultants  
 PMO-Program Management Office

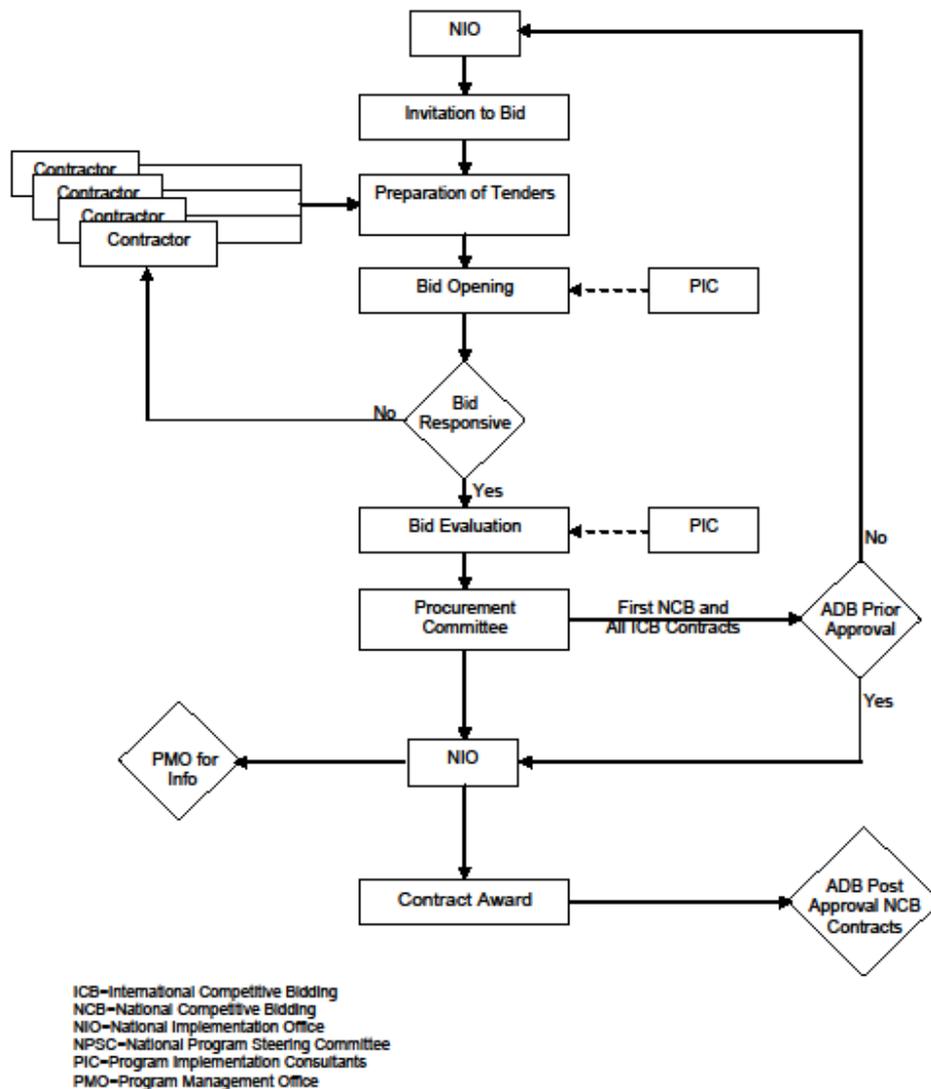
**e. Preparation of Bid Documents**

73. Once the detailed designs are approved, the concerned NIO with assistance from the PMO and the PIC will prepare bid documents following ICB or NCB procedures depending on the estimated value of the contracts. For irrigation subprojects, MOWRAM will prepare the bid documents; for grain handling and storage facilities, and for seed cleaning, grading, drying and storage facilities MAFF will prepare the bid documents. The bid documents will be prepared based on ADB standard format documents. The draft English language version of the procurement documents for the first ICB and NCB contracts will be submitted for ADB review and prior approval regardless of the estimated contract amount. ADB-approved procurement documents will be used as a model for all subsequent ICB and NCB procurement. The PIC will review the bidding documents before they are submitted to ADB for approval. The diagram below shows a summary work flow for the preparation and approval of bidding documents for subprojects: will prepare bidding documents



**f. Procurement of Work Contracts**

74. Procurement of civil works contract for the subprojects will be carried out by the concerned NIO following NCB or ICB procedures depending on the estimated value of each contract. Award of the first NCB contract will be subject to prior approval of ADB regardless of the value of the contract. Award of subsequent NCB contracts will be subject to ADB post-approval. Award of all ICB contracts will be subject to ADB prior approval. The PIC will assist the NIO in the opening and evaluation of tenders. The diagram below shows a summary work flow for the tendering and contract award process:



#### 4. Public Private Partnerships and Private Sector Participation

75. Rice-SDP will promote public private partnerships and private sector participation in five areas, including (i) development and piloting of WICI; (ii) irrigation design and supervision accommodating climate change; (iii) capacity development for rice millers; and (iv) agricultural land leveling; and (v) operating lease of grain drying and storage facilities.

76. It is important to note that Rice-SDP will initially carry out its investment activities in three provinces. However, by 2016 and subject to satisfactory implementation, Rice-SDP will be expanded to about 15 major rice-producing provinces throughout Cambodia. Therefore, PPP and private sector participation in five areas listed in subsequent paragraphs will be replicated nation-wide. As a result, investment leveraged from the private sector will be very significant.

77. **Development and Piloting of Weather Indexed Crop Insurance.** Development and operation of WICI will require participation of (i) an insurance company, (ii) an appropriate vehicle to collect premiums - possibly a seed supplier or agricultural inputs

supplier with capacity to undertake the required tasks, (iii) a financial institution through which the payments can be made, and (iv) a communications strategy and an entity to facilitate the dispatch of notices to insured farmers. While the development and testing under Rice-SDP is subject to the feasibility study, WICI, at the rolling-out stage, will draw attention of business entities along the rice/agricultural value chain due to the fact that WICI has become an attractive niche market for the mainstream (re-)insurance firms and related participants including financial services firms, microfinance institutions, agricultural input suppliers, and marketing agencies. It is expected that about 15 local input suppliers, three local financial institutions, and three local marketing agencies will participate into the pilot tests in three provinces by 2016.

**78. Irrigation Design and Supervision to Accommodate Climate Change.** The screening of irrigation designs to accommodate higher level risks due to climate change is an initiative that will result in skills development on the job for local private sector engineering firms recruited to undertake the detailed design activities. The design skills of these entities will be sharpened through (i) the Rice-SDP's requirements to incorporate climate resilience in the design of canals and water management structures, and (ii) the review by PICs. While these firms are not allowed to participate in civil works bids for the ones they design, by the time civil works bids are called, the overall local capacity will have been made available to implement irrigation subprojects with enhanced climate resilience and efficiency of water-use in mind. There are currently about 30 local private sector engineering firms of reasonable size and capacity to participate in bids for designs and civil works implementation. The initiatives to get them involved in Rice-SDP will sustainably promote private sector participation in climate resilient designs for and construction implementation of irrigation schemes. It is expected that about five local engineering firms will practice commercial design and construction of irrigation system that incorporated climate resilience option by 2019.

**79. Agricultural Land Leveling.** The proposed initiatives will provide commercial opportunities for land leveling contractors in each province to tool-up for such activities and will be trained in the commercial planning of these contracting enterprises. At least nine private contractors will be selected and trained to offer land leveling services in three participating provinces by 2016. It is expected that an estimated 20 private contractors will offer land leveling services at their own initiatives in three participating provinces by 2019 due to the Rice-SDP dissemination of practices and commercial opportunities.

**80. Capacity Development for Rice Millers.** Rice-SDP will develop the capacity of rice mill operators to accommodate changing patterns of paddy supply induced by climate change. It is evident that cropping patterns are changing and consequently, the operations of the mills need to change significantly in terms of stock movements, drying and storage facilities. Management training provided by Rice-SDP will improve stock management practices and general mill operations of selected millers. Through the Cambodia Rice Millers Association and expansion of Rice-SDP by 2016, the stock management practices that accommodate supply patterns of paddy induced by climate change will be disseminated to rice mills nation-wide. It is expected that about 10 local firms will participate in providing advisory services to rice millers by 2019.

**81. Operating Lease of Grain Drying and Storage Facilities.** Public private partnership (PPP) arrangements will be used for operation of grain drying and storage facilities, i.e., the government will utilize the loan and grant proceeds from ADB and GAFSP<sup>26</sup> for construction of the facilities and lease to private sector entities for operation. The proposed strategy is based on a number of facts: (i) the investment in these facilities for the rice sector is a relatively high risk undertaking for the private sector; (ii) development of

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<sup>26</sup> Grain Drying and Storage Facilities will be financed only by ADB and GAFSP.

the rice sector and the export market is in a premature state; (iii) it is difficult to attract private financing for such an unknown investment in Cambodia; (iv) highly commercial nature of the investment renders the government an inappropriate institution to operate the facility; and (v) facility managers must have flexibility in their operations to continually respond to market signals. At a more mature stage of operation, these facilities will be used for operation of the warehouse receipt financing mechanism, whereby financial institutions can lend based on receipt of the products stored in the warehouse. To this end, Rice-SDP can promote better access of millers, exporter, and farming households to formal finance. More information of how the PPP arrangements work is given below.

82. The identification and appointment of the PPP operator is critical to the success of the investment and there is likely to be considerable interest in both facilities as demonstrated during Rice-SDP design. The selection of the operator is to be carried out by the province in which the facility is to be established under the guidance of the PMO and support from the international PPP specialist appointed under the PIC contract.

83. In view of the need to develop a facility that is acceptable to the intending plant operator, the PPP Operator should be identified early, preferably prior to preparation of detailed designs and commencement of construction so he/she can contribute to design considerations and the supervision of construction and installation of the equipment. Selection of the PPP Operator will be carried out on a competitive basis, on the basis of criteria given in the following paragraph. Once commissioned, the PPP operator will assume 100% responsibility for the operations and maintenance of the facility, its plant and equipment. The PPP operator will have reporting obligations that will enable the Governor's office to remain informed of the operations of the facility (with the assistance of the PIO). Bi-annual inspections will be authorized to confirm that all obligations under the PPP Agreement are being followed. The principle of the PPP Agreement will be to set down the roles and responsibilities of each party and allow the PPP operator to run the facility as if it were their own.

84. Criteria proposed for the selection of a PPP operator include: (i) must be experienced in the rice milling industry; (ii) must be able to substantiate access to credit to provide for the purchase of raw material for processing; (iii) must be able to substantiate modern management practices in terms of technical knowledge and financial management using double entry book-keeping methods; (iii) must have management qualifications; and (iii) must agree to reporting requirements specified in the PPP Agreement.

85. Responsibilities of the PPP operator. While the terms of the PPP Agreement will be negotiated between the two parties, the duties presented here provide an indication of the likely coverage of such Agreement. The responsibilities of the PPP operator shall include: (i) assist the detailed design consultants in the design and layout of the drying and storage facility; (ii) assist in the supervision of construction to ensure that the completed facility will serve its intended purposes; (iii) upon commissioning of the facility and, based on the terms of the PPP Agreement negotiated, operate and maintain the facility as required in the Agreement; (iv) maintain responsibility for procuring input supplies for the plant in particular wet paddy from all three seasonal harvests; (v) with the assistance of PDA, work closely with farmers in the area of influence of the facility to improve access to quality seed, input supplies, credit, and to assist in the development of supply contracts to fully utilize the capacity of the facility; (vi) maintain performance reporting on the throughput of the facility to be submitted on a monthly basis to the PIO to facilitate their monitoring; (vii) maintain the facility in sound working condition subject to fair wear and tear; (vii) report significant items of repair of a major structural nature to the PIO/Governor's office and arrange for their repair; and (viii) operate the plant as close to full capacity for as long as is possible in order to achieve lower handling and drying costs from the facility.

## **5. Information Generation and Knowledge Management**

86. During project implementation, there will be a consulting services package to support Rice-SDP implementation (Program Implementation Consultants - PICs). In undertaking their assignments, technical specialists will focus on development of relevant knowledge products. Among other things, this will include taking account of vulnerability to risk from extreme climate events in the development of land-use zoning and the preparation of rice eco-system maps. Included in the knowledge management will also be the development of a GIS based land management data base to be operated jointly by MAFF and MLMUPC.

87. Included in the terms of reference of the irrigation engineer is the requirement for incorporation of higher risk parameters in infrastructure design due to climate change. Information generated as a consequence will be analyzed and used in informing infrastructure design which, in itself, will be a knowledge product for replication within and outside the country. Similarly, with support of the PICs, the advanced techniques employed for land levelling will generate information and knowledge with the potential for replication in other provinces and adoption elsewhere in the GMS. Knowledge products will also result from the development and application of modern post-harvest technologies including paddy drying, grading and storage. Of special significance in terms of knowledge are the lessons to be learnt from the public-private partnerships in post-harvest handling operations.

88. Another innovative feature in terms of knowledge generation is the initiative of weather indexed crop insurance (WICI). Enhanced capacity of the private sector in providing quality services in paddy crop risk mitigation in the selected project areas will result in replicable models for adoption elsewhere in Cambodia and with potential replication in the GMS.

89. In addition to these technical knowledge packages, standard monitoring measures will be developed in an information databases which can be used to produce project-related publications for monitoring purposes.

#### IV. COSTS AND FINANCING

90. **Development Financing Needs.** The implementation of the Rice Policy is estimated to cost the government about \$600 million for the 2010-2020 period. It is estimated that 70% of the budget will be required during the 2012-2015 period to ensure efficient accomplishment of domestic food security and rice export targets. The policy adjustment cost to the government of implementing and complying with reform measures included in the Policy Matrix is estimated at \$33.6 million.<sup>27</sup> The government has requested a policy-based loan in various currencies equivalent to SDRxx (\$24 million equivalent) from ADB's Special Funds resources to help finance the policy reforms as outlined in its Development Policy Letter and Policy Matrix. The policy-based loan will have a 24-year term, including a grace period of 8 years, an interest rate of 1.0% per annum during the grace period and 1.5% per annum thereafter, and such other terms and conditions set forth in the policy-based loan agreement. The policy-based loan will be disbursed in two tranches:<sup>28</sup> (i) tranche 1: SDRxxx (\$12 million equivalent) upon full compliance with the first-tranche conditions, and (ii) tranche 2: SDRxxx (\$12 million equivalent) subject to full compliance with second-tranche conditions.

91. **Investment and Financing Plans.** The Project is estimated to cost \$63.43 million equivalent. The government has requested a loan in various currencies equivalent to SDRxx (\$31.0 million equivalent) from ADB's Special Funds resources to help finance the Project. The loan will have a 32-year term, including a grace period of 8 years, an interest rate of 1.0% per annum during the grace period and 1.5% per annum thereafter, and such other terms and conditions set forth in the loan agreement.<sup>29</sup> The government has requested a grant not exceeding \$14.6 million from the Trust Fund for the Global Agriculture and Food Security Program (GAFSP), a grant of \$4.5 million and a loan of \$5.0 million from the ADB Strategic Climate Fund (SCF) to help finance the Project. The SCF loan will have a 40-year term, including a grace period of 10 years, carry a zero interest rate, and an annual service charge of 0.1% per annum. Principal repayments for the SCF loan will be made at a rate of 2% of the loan total per annum for years 11-20 and 4% for years 20-40. ADB will administer the GAFSP grant, and ADB SCF loan and grant.<sup>30</sup> The government will contribute \$8.33 million, covering resettlement costs, land purchase, taxes and duties, and government staff salaries.

92. For the Project, detailed cost estimates, allocation and withdrawal of loans and grants proceeds, fund flow diagrams, and S-curves of contract award and disbursement are in Sections A-G that follow.

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<sup>27</sup> Detailed estimates of adjustment costs are in Supplementary Document 5.

<sup>28</sup> In accordance with provisions set out in: ADB. 1998. *Simplification of Disbursement Procedures and Related Requirements for Program Loans*. Manila.

<sup>29</sup> The interest charges during implementation on the ADB loan will be capitalized. The ADB loan and GAFSP grant will finance part of recurrent costs under the expenditure category for project implementation and supervision. The government will finance service charges on ADB SCF loan during implementation.

<sup>30</sup> ADB and ADB-administered funds may finance financing charges during implementation, recurrent costs, transportation, insurance, and bank charges.

## A. Detailed Cost Estimates by Expenditure Category

	(Riel Billion)			(US\$ '000)			% Total Base Costs
	Foreign	Local	Total	Foreign	Local	Total	
<b>A. Investment Costs</b>							
<b>1. Subprojects</b>							
<b>a. Civil Works</b>							
Civil Works (Irrigation)	23.0	28.8	51.8	5,750.6	7,188.2	12,938.8	22.0
Civil Works (Grain Handling)	12.5	15.6	28.1	3,120.0	3,900.0	7,020.0	12.0
Survey, Design and Supervision	0.9	7.1	8.0	221.8	1,774.1	1,995.9	3.0
<b>Subtotal</b>	36.4	51.4	87.8	9,092.3	12,862.3	21,954.6	38.0
<b>b. Specialized Equipment</b>							
Grain Drying Equipment	28.1	0.0	28.1	7,020.0	0.0	7,020.0	12.0
Laboratory Equipment	0.5	0.1	0.6	131.0	16.4	147.4	0.0
<b>Subtotal</b>	28.6	0.1	28.7	7,151.0	16.4	7,167.4	12.0
<b>c. Associated Initiatives</b>	2.4	3.3	5.7	588.0	834.0	1,422.0	2.0
<b>Subtotal</b>	67.3	54.9	122.2	16,831.4	13,712.7	30,544.1	53.0
<b>2. Contract Services</b>							
Land-use Zoning	2.0	5.2	7.2	502.3	1,306.0	1,808.3	3.0
Certified Seed Production	0.8	2.7	3.4	190.0	665.0	855.0	1.0
Crop Insurance	0.0	8.0	8.0	0.0	2,000.0	2,000.0	3.0
Milling Support	0.4	1.5	1.9	108.0	378.0	486.0	1.0
<b>Subtotal</b>	3.2	17.4	20.6	800.3	4,349.0	5,149.3	9.0
3. Resettlement	0.0	1.7	1.7	0.0	431.3	431.3	1.0
4. Land Purchase	0.0	3.0	3.0	0.0	750.0	750.0	1.0
<b>5. Vehicles and Equipment</b>							
Vehicles	0.8	0.0	0.8	210.6	0.0	210.6	0.0
Motorcycles	0.8	0.0	0.8	192.0	0.0	192.0	0.0
Office Equipment	1.0	0.0	1.0	260.5	0.0	260.5	0.0
<b>Subtotal</b>	2.7	0.0	2.7	663.1	0.0	663.1	1.0
<b>6. Consulting Services</b>							
International consultants	17.9	0.0	17.9	4,476.0	0.0	4,476.0	8.0
National Consultants	0.0	6.1	6.1	0.0	1,535.8	1,535.8	3.0
Consultant Support Costs	0.9	0.0	0.9	233.9	0.0	233.9	0.0
<b>Subtotal</b>	18.8	6.1	25.0	4,709.9	1,535.8	6,245.7	11.0
7. Training and Studies	0.7	5.2	5.9	162.7	1,302.0	1,464.7	3.0
<b>8. Implementation and Supervision</b>							
Government Staff	0.0	5.7	5.7	0.0	1,426.9	1,426.9	2.0
Incremental Staff	0.0	15.6	15.6	0.0	3,895.2	3,895.2	7.0
Office Operation	1.4	4.9	6.4	353.3	1,236.5	1,589.8	3.0
Vehicle and Equipment O&M	0.5	0.7	1.2	130.4	163.0	293.5	1.0
Monitoring, Evaluation and Gender Mainstreaming	0.4	1.3	1.6	90.0	315.0	405.0	1.0
<b>Subtotal</b>	2.3	28.1	30.4	573.7	7,036.6	7,610.3	13.0
9. Duties & Taxes	0.0	20.5	20.5	0.0	5,118.2	5,118.2	9.0
<b>Total BASELINE COSTS</b>	95.0	136.9	231.9	23,741.1	34,235.5	57,976.6	100.0
Physical Contingencies	1.0	5.9	6.9	243.4	1,471.8	1,715.1	3.0
Price Contingencies	2.1	9.1	11.2	516.3	2,277.1	2,793.3	5.0
<b>Total PROJECT COSTS</b>	98.0	151.9	249.9	24,500.7	37,984.3	62,485.1	108.0
Interest During Implementation	3.7	0.0	3.7	927.0	0.0	927.0	2.0
Commitment Charges	0.1	0.0	0.1	18.8	0.0	18.8	0.0
<b>Total Costs to be Financed</b>	101.8	151.9	253.7	25,446.5	37,984.3	63,430.8	109.0

**B. Allocation and Withdrawal of Loans and Grants Proceeds**

**1. ADB Investment ADF Loan**

Climate Resilient Rice Commercialization Sector Development Program				
CATEGORY				ADB ADF LOAN FINANCING
Number	Item	Amount Allocated [\$ - to be converted into SDR]		Percentage and Basis for Withdrawal from the Loan Account
		Category	Subcategory	
1	Civil Works	17,599,500		
1A	Civil Works - Irrigation		9,630,200	67.0 percent of total expenditure
1B	Civil Works - Grain Handling		7,020,000	90.0 percent of total expenditure
1C	Survey, Design and Supervision		949,300	42.8 percent of total expenditure
2	Associated Initiatives	531,300		29.6 percent of total expenditure
3	Vehicles and Office Equipment	648,600		
3A	Four-Wheel-Drive Vehicles		234,700	65.0 percent of total expenditure
3B	Motorcycles		223,400	80.0 percent of total expenditure
3C	Office Equipment		190,500	59.1 percent of total expenditure
4	Consulting Services	3,747,200		
4A	International Consultants		2,631,500	55.3 percent of total expenditure
4B	National Consultants		944,700	44.5 percent of total expenditure
4C	Consultant Support Costs		171,000	56.0 percent of total expenditure
5	Implementation and Supervision	7,546,400		
5A	Government Staff		334,100	100 percent of total expenditure*
5B	Incremental Staff		4,877,000	90.0 percent of total expenditure
5C	Office Operation		1,972,100	90.0 percent of total expenditure
5D	Vehicle and Equipment O&M		363,200	90.0 percent of total expenditure
6	Interest Charges	927,000		100 percent of amount due
	<b>Total</b>	<b>31,000,000</b>		

\* Exclusive of local taxes and duties imposed within the territory of the Recipient.

## 2. GAFSP Grant

Climate Resilient Rice Commercialization Sector Development Program				
CATEGORY				GAFSP GRANT FINANCING
Number	Item	Amount Allocated [\$]		Percentage and Basis for Withdrawal from the Grant Account
1	Civil Works - Survey, Design and Supervision	624,700		28.2 percent of total expenditure
2	Equipment	7,167,400		
2A	Grain Drying Equipment		7,020,000	90.0 percent of total expenditure
2B	Laboratory Equipment		147,400	90.0 percent of total expenditure
3	Contract Services	3,282,100		
3A	Land use Zoning		2,228,500	90.0 percent of total expenditure
3B	Certified Seed Production		1,053,600	90.0 percent of total expenditure
4	Office Equipment	99,700		30.9 percent of total expenditure
5	Consulting Services	1,116,100		
5A	International Consultants		656,600	13.8 percent of total expenditure
5B	National Consultants		459,500	21.7 percent of total expenditure
6	Training and Studies	1,808,500		90.0 percent of total expenditure
7	Implementation and Supervision	501,500		90.0 percent of total expenditure
	<b>Total</b>	<b>14,600,000</b>		

### 3. ADB SCF- Loan

Climate Resilient Rice Commercialization Sector Development Program				
CATEGORY				ADB SCF LOAN FINANCING
Number	Item	Amount Allocated [\$]		Percentage and Basis for Withdrawal from the Loan Account
1	Civil Works (Irrigation)	3,308,600		23.0 percent of total expenditure
2	Associated Initiatives	1,103,000		61.5 percent of total expenditure
3	Contract Services - Milling Support	588,400		90.0 percent of total expenditure
	<b>Total</b>	<b>5,000,000</b>		

### 4. ADB SCF Grant

Climate Resilient Rice Commercialization Sector Development Program				
CATEGORY				ADB SCF GRANT FINANCING
Number	Item	Amount Allocated [\$]		Percentage and Basis for Withdrawal from the Grant Account
1	Civil Works - Survey, Design and Supervision	421,900		19.0 percent of total expenditure
2	Crop Insurance	2,000,000		100 percent of total expenditure*
3	Consulting Services	2,078,100		
3A	International Consultants		1,468,000	30.9 percent of total expenditure
3B	National Consultants		504,600	23.8 percent of total expenditure
3C	Consultant Support Costs		105,500	34.6 percent of total expenditure
	<b>Total</b>	<b>4,500,000</b>		

\* Exclusive of local taxes and duties imposed within the territory of the Recipient.

## C. Detailed Cost Estimates by Financier

### Table C1 – Detailed Cost Estimates by Financier - Overall Project (\$ millions)

	The Government		ADB ADF Loan		GAFSP - Grant		ADB SCF - Loan		ADB SCF - Grant		Total		Unit: \$'000	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Duties & Taxes <sup>a</sup>	
<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>														
<b>Subtotal</b>	<b>158.2</b>	<b>8.9</b>	<b>531.3</b>	<b>29.6</b>	<b>0.0</b>	<b>0.0</b>	<b>1,103.0</b>	<b>61.5</b>	<b>0.0</b>	<b>0.0</b>	<b>1,792.5</b>	<b>2.8</b>	<b>158.2</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>	
C. Resettlement	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	
D. Land Purchase	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>	
G. Training and Studies	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<sup>c</sup></b>														
Government Staff (Government-financed)	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	199.1	
Government Staff (ADB-financed) <sup>d</sup>	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>1,056.2</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>5,536.4</b>	
Interest During Implementation <sup>e</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>e,f</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>63,430.8</b>	<b>100.0</b>	<b>5,536.4</b>	

<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> To be paid based on time sheet indicating inputs to Rice-SDP related work.

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

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

**Table C2 - GAFSP Fund Allocation for Rice-SDP (\$ millions)**

(Note: This table substantiates the total proposed funding of \$14.6 million from GAFSP as stated in Table C1)

<b>Activities Approved by GAFSP Steering Committee</b>	<b>Allocation Approved by GAFSP Steering Committee for Rice-SDP</b>	<b>Proposed Allocation</b>	<b>Adjustments</b>
<b>C1: Raising Agricultural Productivity<sup>a</sup></b>	<b>3.0</b>	<b>5.0</b>	<b>+ 2.0</b>
Component I - Adoption of higher yielding technologies	0	0.7	+ 0.7
Component II - Technology generation	0	1.6	+ 1.6
Component III - Improving the efficiency of land-use	3.0	2.7	- 0.3
<b>C2: Linking Farmers to Market<sup>b</sup></b>	<b>8.0</b>	<b>7.6</b>	<b>- 0.4</b>
Component I - Reduce transfer and transaction costs	2.0	0.0	- 2.0
Component II - Other value addition	6.0	7.6	+ 1.6
<b>C3: Reducing Risk and Vulnerability</b>			
Component I - Improving nutrition of vulnerable groups			
<b>C4: Improving Non-farm Rural Livelihoods<sup>c</sup></b>	<b>3.0</b>	<b>1.5</b>	<b>- 1.5</b>
Component I - Promoting non-farm rural entrepreneurship	3.0	1.5	- 1.5
<b>C5: Technical Assistance, Institution Building and Capacity Development<sup>c</sup></b>	<b>0.6</b>	<b>0.5</b>	<b>- 0.1</b>
Component I - Implementation of the Rice Policy			
Component II - Capacity building for sector strategy, investments and implementation	0.6	0.5	- 0.1
Component III - Knowledge development and dissemination			
<b>Total Program Budget</b>	<b>14.6</b>	<b>14.6</b>	<b>-</b>
Program Management Support			
<b>Total Program Cost</b>	<b>14.6</b>	<b>14.6</b>	<b>-</b>

<sup>a</sup> Adjustments under C1 are proposed to (i) upgrade technical extension packages for rice production under all cropping systems, (ii) improve the technology for the production and distribution of quality rice seed through development of a rice seed certification system and support for the multiplication to certified seed commencing at CARDI and extending through to commercial seed producers, and (iii) minor changes to the allocation for the improving efficiency of land-use allocation.

<sup>b</sup> Adjustments under C2 are required as the intended activities are being addressed under another activity in Rice-SDP design. The second subcategory will need to be increased because the high cost of establishing grain drying and storage facilities requires additional resources in order for the 'other value addition' initiatives to be successfully implemented.

<sup>c</sup> In respect of the allocation under C4, reduction is warranted given the fact that other investment projects funded by ADB (such as the Tonle Sap Poverty Reduction and Smallholder Development Project) and other development partners have been providing off farm employment initiatives in the project area. Under Component C5, an adjustment from \$0.6 million to \$0.5 million is more realistic based on a cost analysis conducted during the program preparation.

**Table C3 – SCF Fund Allocation for Rice-SDP (\$ millions)**

[Note: This table substantiates the total proposed funding of \$9.5 million (combined loan and grant) from Strategic Climate Fund as stated in Table C1]

<b>Activities/Expenditure</b>	<b>Loan Amount (US\$'000)</b>	<b>Grant Amount (US\$'000)</b>
Rehabilitation of 13 irrigation schemes to enhance climate resilience	3,308.6	0
Detailed design and supervision of 13 subproject construction	0	421.9
Land leveling in the areas of 13 subprojects	1,103.0	
Weather-indexed crop insurance developed and tested in three provinces	0	2,000.0
Miller capacity development in three provinces for climate resilience	588.4	0
Consulting services to incorporate climate resilience	0	2,078.1
<b>Total Cost</b>	<b>5,000.0</b>	<b>4,500.0</b>

## D. Detailed Cost Estimates by Outputs/Components

Unit: \$'000

	Improvement of Agricultural Land-use Zoning	Development of Climate Resilient Value Chain Infrastructure		Enhancement of Rice Value Chain Support Services				Weather-indexed Crop Insurance Development	Efficient Program Implementation and Management	Total
		Infrastructure Development	Associated Subproject Initiatives	Quality Rice Seed	Extension Services	Miller Development	Finance Access Facilitation			
<b>I. Investment Costs</b>										
<b>A. Subprojects</b>										
<b>1. Civil Works</b>										
Civil Works (Irrigation)	0.0	14,376.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14,376.4
Civil Works (Grain Handling)	0.0	7,800.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7,800.0
Survey, Design and Supervision	0.0	2,217.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2,217.6
<b>Subtotal</b>	0.0	24,394.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24,394.0
<b>2. Specialized Equipment</b>										
Grain Drying Equipment	0.0	7,800.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7,800.0
Laboratory Equipment	0.0	0.0	0.0	163.8	0.0	0.0	0.0	0.0	0.0	163.8
<b>Subtotal</b>	0.0	7,800.0	0.0	163.8	0.0	0.0	0.0	0.0	0.0	7,963.8
<b>3. Associated Initiatives</b>										
	0.0	0.0	1,792.5	0.0	0.0	0.0	0.0	0.0	0.0	1,792.5
<b>Subtotal</b>	0.0	32,194.0	1,792.5	163.8	0.0	0.0	0.0	0.0	0.0	34,150.4
<b>B. Contract Services</b>										
Land-use Zoning	2,476.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2,476.1
Certified Seed Production	0.0	0.0	0.0	1,170.7	0.0	0.0	0.0	0.0	0.0	1,170.7
Crop Insurance	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2,000.0	0.0	2,000.0
Milling Support	0.0	0.0	0.0	0.0	0.0	653.9	0.0	0.0	0.0	653.9
<b>Subtotal</b>	2,476.1	0.0	0.0	1,170.7	0.0	653.9	0.0	2,000.0	0.0	6,300.7
<b>C. Resettlement</b>	0.0	431.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	431.3
<b>D. Land Purchase</b>	0.0	886.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	886.1
<b>E. Vehicles and Equipment</b>										
Vehicles	40.1	40.1	120.3	40.1	0.0	0.0	0.0	0.0	120.3	361.0
Motorcycles	117.6	0.0	161.6	0.0	0.0	0.0	0.0	0.0	0.0	279.2
Office Equipment	133.0	22.3	100.3	22.3	0.0	0.0	0.0	0.0	44.6	322.5
<b>Subtotal</b>	290.8	62.4	382.2	62.4	0.0	0.0	0.0	0.0	164.9	962.8
<b>F. Consulting Services</b>										
International consultants	390.0	871.9	0.0	261.1	243.4	0.0	152.1	0.0	2,837.6	4,756.1
National Consultants	256.1	641.2	0.0	52.2	104.8	287.5	66.0	0.0	713.0	2,120.8
Consultant Support Costs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	305.2	305.2
<b>Subtotal</b>	646.2	1,513.1	0.0	313.3	348.2	287.5	218.1	0.0	3,855.7	7,182.1
<b>G. Training and Studies</b>	370.3	0.0	0.0	74.6	373.1	831.6	359.9	0.0	0.0	2,009.5
<b>H. Implementation and Supervision</b>										
Government Staff	303.7	303.7	1,006.9	303.7	0.0	0.0	0.0	0.0	73.5	1,991.4
Incremental Staff	592.4	682.3	1,834.7	592.4	0.0	0.0	0.0	0.0	1,717.1	5,418.9
Office Operation	337.3	207.7	1,127.0	207.7	0.0	0.0	0.0	0.0	311.5	2,191.2
Vehicle and Equipment O&M	117.0	18.5	194.1	18.5	0.0	0.0	0.0	0.0	55.5	403.6
Monitoring, Evaluation and Gender Mainstreaming	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	557.2	557.2
<b>Subtotal</b>	1,350.3	1,212.2	4,162.7	1,122.2	0.0	0.0	0.0	0.0	2,714.8	10,562.3
<b>Total PROJECT COSTS</b>	5,133.7	36,299.1	6,337.5	2,907.0	721.2	1,773.0	578.1	2,000.0	6,735.5	62,485.1

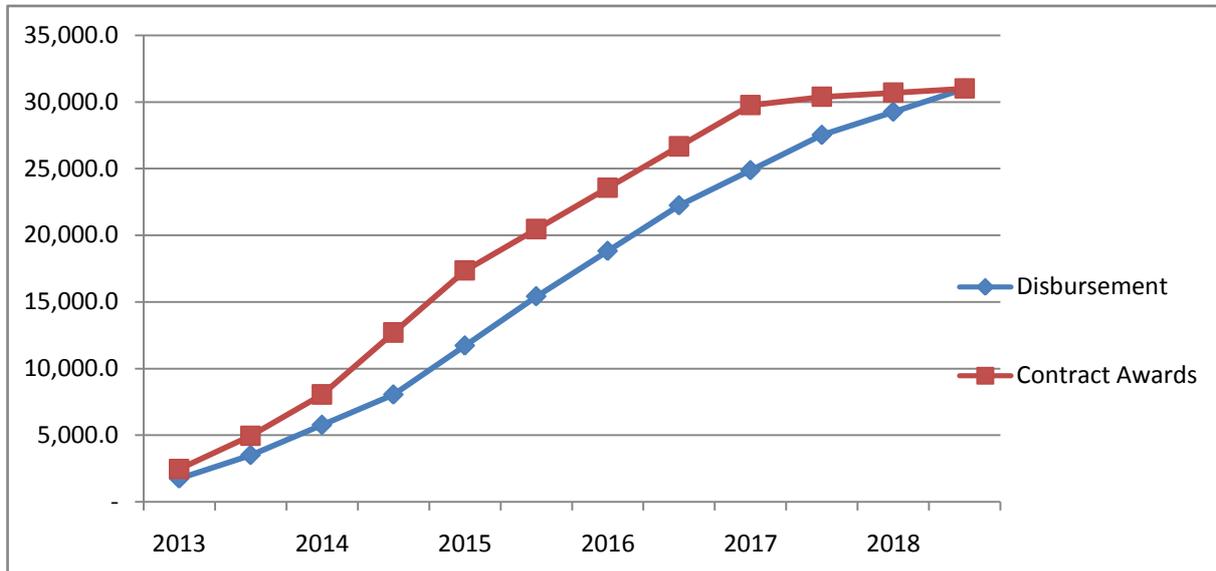
## E. Detailed Cost Estimates by Year

Unit: \$'000

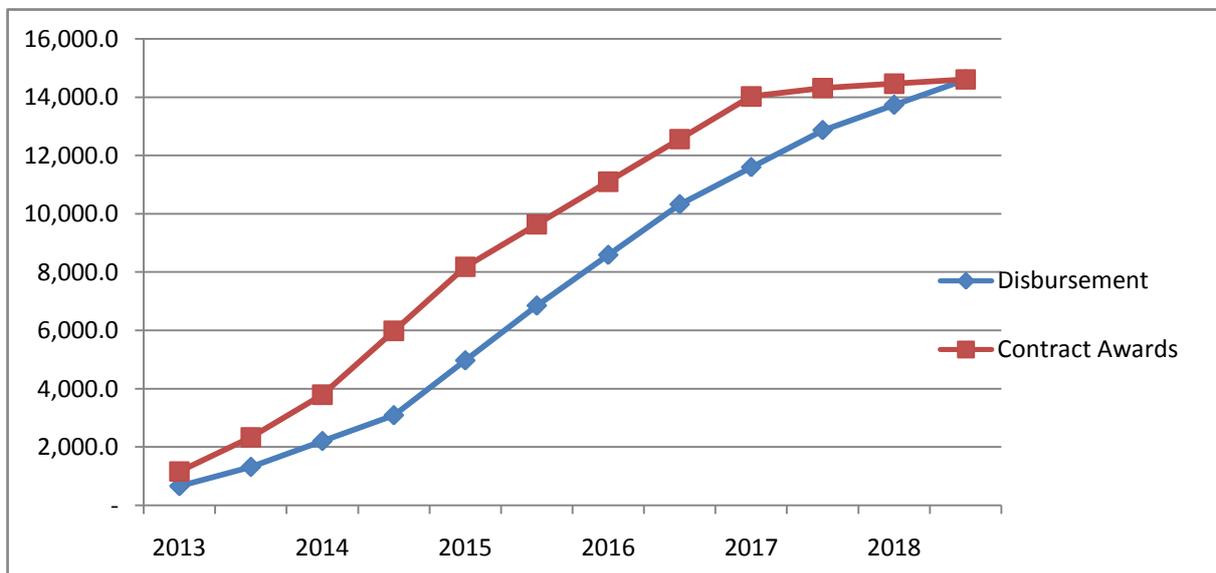
	Totals Including Contingencies						Total
	2013	2014	2015	2016	2017	2018	
<b>I. Investment Costs</b>							
<b>A. Subprojects</b>							
<b>1. Civil Works</b>							
Civil Works (Irrigation)	5,700.2	520.6	2,602.9	2,602.9	1,735.2	1,214.7	14,376.4
Civil Works (Grain Handling)	0.0	468.0	2,340.0	2,340.0	1,560.0	1,092.0	7,800.0
Survey, Design and Supervision	361.1	747.0	845.9	123.6	82.4	57.7	2,217.6
<b>Subtotal</b>	<b>6,061.3</b>	<b>1,735.6</b>	<b>5,788.7</b>	<b>5,066.4</b>	<b>3,377.6</b>	<b>2,364.3</b>	<b>24,394.0</b>
<b>2. Specialized Equipment</b>							
Grain Drying Equipment	0.0	1,950.0	1,950.0	1,950.0	1,950.0	0.0	7,800.0
Laboratory Equipment	0.0	163.8	0.0	0.0	0.0	0.0	163.8
<b>Subtotal</b>	<b>0.0</b>	<b>2,113.8</b>	<b>1,950.0</b>	<b>1,950.0</b>	<b>1,950.0</b>	<b>0.0</b>	<b>7,963.8</b>
<b>3. Associated Initiatives</b>	0.0	6.4	151.9	772.7	748.2	113.4	1,792.5
<b>Subtotal</b>	<b>6,061.3</b>	<b>3,855.8</b>	<b>7,890.6</b>	<b>7,789.2</b>	<b>6,075.8</b>	<b>2,477.7</b>	<b>34,150.4</b>
<b>B. Contract Services</b>							
Land-use Zoning	178.4	375.0	661.0	624.1	370.5	267.1	2,476.1
Certified Seed Production	168.2	198.0	205.7	213.8	222.1	162.9	1,170.7
Crop Insurance	0.0	350.0	412.5	412.5	412.5	412.5	2,000.0
Milling Support	0.0	209.7	217.8	226.3	0.0	0.0	653.9
<b>Subtotal</b>	<b>346.6</b>	<b>1,132.8</b>	<b>1,497.1</b>	<b>1,476.7</b>	<b>1,005.1</b>	<b>842.5</b>	<b>6,300.7</b>
<b>C. Resettlement</b>	0.0	86.3	172.5	172.5	0.0	0.0	431.3
<b>D. Land Purchase</b>	168.5	351.3	366.3	0.0	0.0	0.0	886.1
<b>E. Vehicles and Equipment</b>							
Vehicles	361.0	0.0	0.0	0.0	0.0	0.0	361.0
Motorcycles	13.4	107.5	110.3	48.1	0.0	0.0	279.2
Office Equipment	322.5	0.0	0.0	0.0	0.0	0.0	322.5
<b>Subtotal</b>	<b>696.9</b>	<b>107.5</b>	<b>110.3</b>	<b>48.1</b>	<b>0.0</b>	<b>0.0</b>	<b>962.8</b>
<b>F. Consulting Services</b>							
International consultants	398.1	1,749.2	1,305.2	764.8	407.5	131.3	4,756.1
National Consultants	121.3	501.7	501.1	458.2	334.4	204.2	2,120.8
Consultant Support Costs	85.3	41.8	42.8	44.0	45.1	46.3	305.2
<b>Subtotal</b>	<b>604.7</b>	<b>2,292.7</b>	<b>1,849.1</b>	<b>1,266.9</b>	<b>786.9</b>	<b>381.7</b>	<b>7,182.1</b>
<b>G. Training and Studies</b>	26.9	563.3	550.9	403.6	330.5	134.3	2,009.5
<b>H. Implementation and Supervision</b>							
Government Staff	205.5	289.1	379.6	395.7	396.6	324.9	1,991.4
Incremental Staff	719.0	824.5	937.6	977.5	1,003.1	957.2	5,418.9
Office Operation	258.4	326.4	399.4	418.0	420.1	368.9	2,191.2
Vehicle and Equipment O&M	28.1	50.8	75.2	87.8	87.8	73.9	403.6
Monitoring, Evaluation and Gender Mainstreaming	44.9	104.8	108.9	113.2	117.6	67.9	557.2
<b>Subtotal</b>	<b>1,255.7</b>	<b>1,595.7</b>	<b>1,900.7</b>	<b>1,992.1</b>	<b>2,025.2</b>	<b>1,792.8</b>	<b>10,562.3</b>
<b>Total PROJECT COSTS</b>	<b>9,160.7</b>	<b>9,985.3</b>	<b>14,337.4</b>	<b>13,149.1</b>	<b>10,223.5</b>	<b>5,629.1</b>	<b>62,485.1</b>

**F. Contract and Disbursement S-curves**

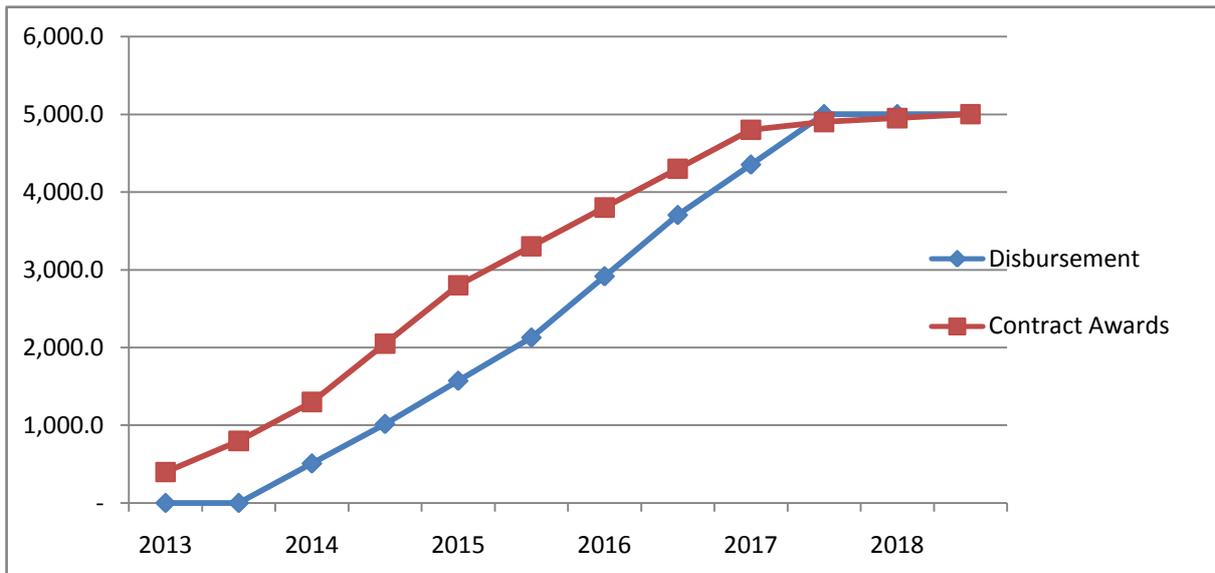
**ADB ADF Loan**



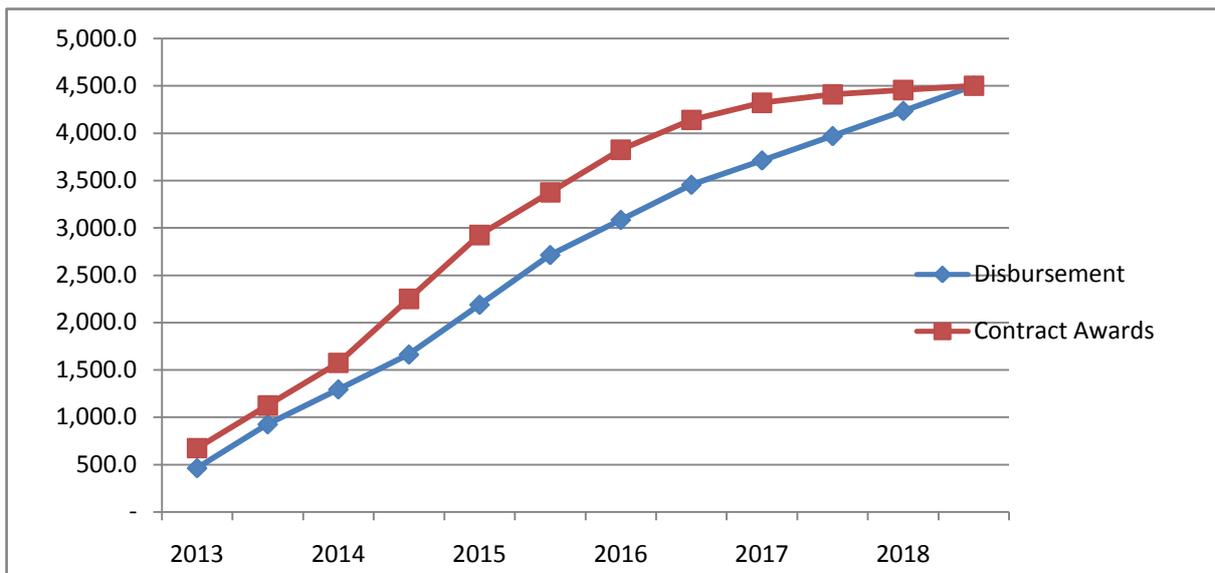
**GAFSP Grant**



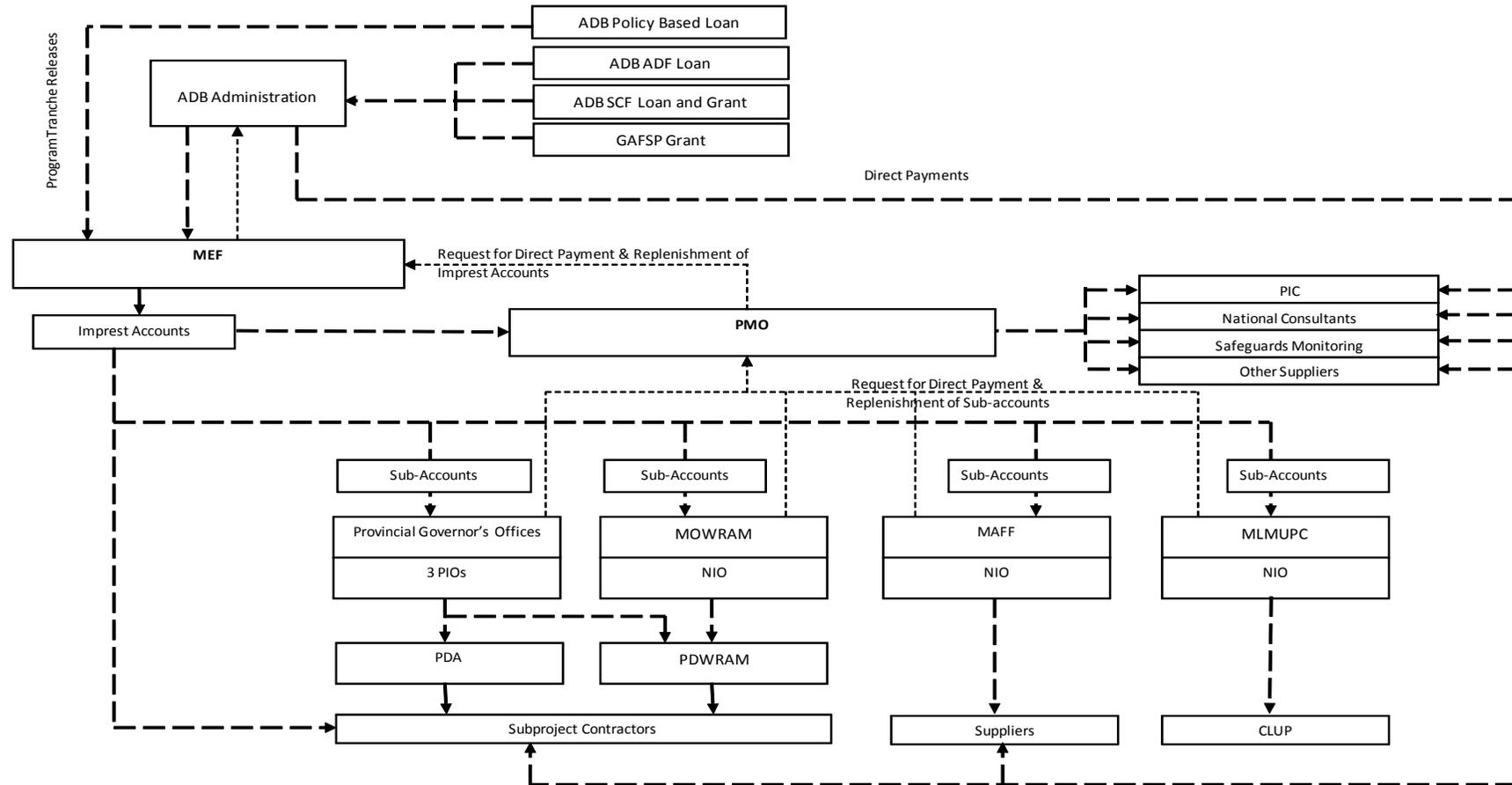
### ADB SCF Loan



### ADB SCF Grant



## G. Fund Flow Diagram



ADB = Asian Development Bank  
 ADB SCF = ADB Strategic Climate Fund  
 GAFSP = Global Agriculture Food Security Program  
 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

PDA = Provincial Department of Agriculture  
 PDWRAM = Provincial Department of Water Resources and Meteorology  
 PIO = Provincial Implementation Office  
 PMO = Program Management Office  
 CLUP = Commune Land Use Planning  
 PIC = Program Implementation Consultants

— Disbursement and direct payments  
 - - - - - Reporting/requesting for direct payments/account replenishments

## V. FINANCIAL MANAGEMENT

### A. Financial Management Assessment

93. A financial management risk assessment of the executing and implementing agencies has been carried out using the standard Financial Management Assessment Questionnaire specified by ADB. Risks have been assessed in four key areas, (i) public financial management, (ii) procurement, (iii) anticorruption, and (iv) implementation of subproject investments. The risks identified can be largely mitigated by developing formal procedures and through capacity building of implementation staff. As many will be new recruits to implementation structures, this is an important aspect of the management plan to reduce risks. Based on the mitigating measures to be adopted during implementation, the overall risk associated with the Program is considered low. The main findings of the risk assessment regarding financial management are summarized below.

94. The government is expected to contribute 13.13% of the total cost of the Rice-SDP's investment project through (i) counterpart financing of resettlement costs, land purchases for grains handling facilities; taxes and duties, and (ii) provision of government staff. Financial obligations of participating line agencies and provinces have been minimized by requiring only the appointment of selected permanent government staff into the implementation management structures.

95. With a shortage of counterpart funding, the allocation of adequate resources for the O&M of public assets is often overlooked, that threatens to progressively diminish potential impacts from subproject investments. The Program will promote greater commitment to beneficiary financed O&M through strengthening of farmer water user communities. In the case of non-irrigation interventions, the introduction of public private partnerships through formal legal agreements will ensure that the private entity will make the necessary allocations to maintain assets during the term of the lease.

96. Another potential risk area is delayed or incomplete settlement of land acquisition and resettlement entitlements. MOWRAM will prepare resettlement plans for each irrigation subproject, and will submit it through its resettlement unit for approval by the Inter-ministerial Resettlement Committee (IRC). MOWRAM will then execute the approved resettlement plan prior to commencement of civil works. Close coordination will be required with provincial resettlement committee in a process of updating and implementation of subproject resettlement plans and the establishment of a grievance mechanism. The Program according to ADB regulations will require that works do not commence until compensation payments have been completed. An independent resettlement monitoring organization will be appointed by the PMO to certify that resettlement entitlements have been satisfied in full before the contractors are given the order to proceed. The independent monitoring entity will be financed under the Program.

97. There is a lack of transparency in the procurement process which may lead to a number of irregularities. The Program will establish a website in which it will disclose implementation progress; bid notifications and their results; and provides grievance mechanism against any corrupt practice. All procurement under the Program to be financed by the ADB loan as well as those to be financed by the GAFSP and PPCR loans and grants will be carried out in accordance with ADB's *Procurement Guidelines*. For NCB procedures, the provisions of the government's *Standard Operating Procedures* (May 2012) as agreed with ADB<sup>31</sup> will be followed. In case of inconsistency between ADB procedures and the

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<sup>31</sup> Ministry of Economy and Finance (MEF) Manual on SOP for Externally Financed Project/Programs in Cambodia (August 2005). Financial Management Manual for Externally Financed Project/Programs in Cambodia (September 2005); MEF. Procurement Manual for Externally Financed Project/Programs in

*Standard Operating Procedures*, ADB procedures will be applied. The Program will recruit independent international and national specialists to assist and provide guidance to the PMO and the NIOs for procurement and selection of consultants.

98. Coordination between various implementing agencies and entities is key to efficient implementation of the Program and achievement of the objectives. Given the extent public servants who are appointed on non-merit based recruitment procedures and the heavy dependence on 'guardians' for promotion, individual relations often exceed the authority of management structures. Under such arrangements, interagency coordination is difficult and territorial behavior understandable. The Program addresses this issue through the appointment of multi-agency steering committees at national and provincial levels and by appointing the provincial governor's offices as the provincial implementation units responsible for coordination at province level. A relatively modest level of technical support is also provided through the PIC. This aspect is critical as subprojects each require the coordination of multiple agencies.

99. There is a risk that agreements will be reached with public private partnership (PPP) candidates on a less than competitive basis. This can be countered by strict adherence to technical requirements to be outlined in the invitations to bid, confirmation of the resource backing of proponents, and the appointment of an independent bid evaluation committee. The design consultants have developed a standard PPP lease document for the two types of infrastructure that are considered suitable for a PPP arrangements. In addition, a PPP Specialist has been included in the PIC team to guide and advise the government regarding the proposed PPP contract arrangements and assist the government in the transparent selection of the PPP partners.

## **B. Disbursement**

100. For the Program, the policy-based loan proceeds of SDRxxx (\$24 million equivalent) will be disbursed in two tranches, in accordance with provisions set out in ADB's *Simplification of Disbursement Procedures and Related Requirements for Program Loans*.<sup>32</sup> (i) tranche 1: SDRxxx (\$12 million equivalent) upon full compliance with the first-tranche conditions, and (ii) tranche 2: SDRxxx (\$12 million equivalent) subject to full compliance with second-tranche conditions.

101. For the Project, the ADB, GAFSP grant, SCF loan and grant proceeds will be disbursed in accordance with ADB's *Loan Disbursement Handbook* (2012, as amended from time to time),<sup>33</sup> and detailed arrangements agreed upon between the government and ADB.

102. Pursuant to ADB's *Safeguards Policy Statement* (2009) (SPS),<sup>34</sup> ADB funds may not be applied to the activities described on the ADB Prohibited Investment Activities List set forth at Appendix 5 of the SPS. All financial institutions will ensure that their investments are in compliance with applicable national laws and regulations and will apply the prohibited investment activities list to subprojects financed by ADB.

103. Fund flow will follow the ADB *Disbursement Handbook* with imprest accounts managed by the PMO and sub-accounts managed by the relevant NIOs and PIOs. Separate imprest accounts and sub-accounts will be maintained for each of the funding source.

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Cambodia, Phnom Penh (in two volumes), (September 2005) MEF. The Government's SOP are being updated during 2011 in consultation with development partners, including ADB.

<sup>32</sup> ADB. 1998. *Simplification of Disbursement Procedures and Related Requirements for Program Loans*. Manila.

<sup>33</sup> Available at: [http://www.adb.org/Documents/Handbooks/Loan\\_Disbursement/loan-disbursement-final.pdf](http://www.adb.org/Documents/Handbooks/Loan_Disbursement/loan-disbursement-final.pdf)

<sup>34</sup> Available at: <http://www.adb.org/Documents/Policies/Safeguards/Safeguard-Policy-Statement-June2009.pdf>

104. The Program finance and accounting functions will be performed by qualified and experienced staff both at central level and in the participating provinces. The Program will provide training and written guidelines, particularly regarding ADB disbursement procedures, to the accounting staff of the EA and the two PIOs. The Program will prepare TORs that define duties, responsibilities, lines of supervision, and limits of authority for all officers, managers, and staff of the PMO, NIOs and PIOs. The following responsibilities will be performed by different units or persons: (i) authorize and execute a transaction; (ii) record the transaction; and (iii) assume custody of assets involved in the transaction. The bank reconciliation will be prepared by someone other than those who approve payments. Accounting software must be capable of generating reports identifying expenditures in accordance with program components, expenditure accounts, disbursement categories, and sources of funds..

105. Controls will be in place concerning the preparation and approval of transactions, ensuring that all transactions are correctly made and adequately explained. The chart of accounts will allow accounting for and reporting on program activities and disbursement categories. The cost allocations to the various funding sources will be made accurately and in accordance with established agreements. The general ledger and subsidiary ledgers will be reconciled and in balance. Recognized accounting software acceptable to ADB will be used by the PMO, NIOs and PIOs. The software must be capable of accommodating electronic transfer of accounting data from NIOs, PIOs to the PMO to facilitate timely reporting. All accounting and supporting documents will be retained on a permanent basis in a secure system that allows only authorized users easy access. Regular monitoring and internal audit functions will be built in to monitor transactions from central government to provincial, and subproject levels. Such control procedures will be documented in the program and project's finance and administration manual.

## **1. Imprest Accounts**

106. After loan effectiveness, the government will open four (4) imprest accounts, one for each financing source, in a bank acceptable to the government and ADB, to receive loan and grant funds from ADB and the other cofinanciers. The currency of the imprest accounts will be United States dollar. The imprest accounts will be operated and managed by the PMO under the supervision of the Central Treasury in accordance with ADB's *Loan Disbursement Handbook* (2012, as amended from time to time). ADB disbursement procedures will be followed for withdrawal of ADB funds through the imprest account. Funds in the imprest accounts will be used to pay for eligible program expenses encountered by the PMO and to establish advances in the sub-accounts that will be controlled by the NIOs and the PIOs. In the participating provinces, operation of the sub-accounts by the PIOs will be under the supervision of the provincial treasury.

107. Separate imprest accounts should be established and maintained by funding source. The maximum ceiling of each imprest account is 10% of the respective loan or grant amount.<sup>35</sup> The request for initial advance to the imprest account should be accompanied by an Estimate of Expenditure Sheet<sup>36</sup> setting out the estimated expenditures for the first 6 months of program implementation, and submission of evidence satisfactory to ADB that the imprest account has been duly opened. For every liquidation and replenishment request of the imprest account, the borrower will furnish to ADB (a) Statement of Account (Bank Statement) where the imprest account is maintained, and (b) the Imprest Account Reconciliation Statement (IARS) reconciling the above mentioned bank statement against the EA's records.<sup>37</sup>

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<sup>35</sup> Bank charges will be financed by the ADB ADF loan and ADB-administered cofinancing sources.

<sup>36</sup> Available in Appendix 29 of the *Loan Disbursement Handbook*.

<sup>37</sup> Follow the format provided in Appendix 30 of the *Loan Disbursement Handbook*.

108. The PMO Director and the Chief Accountant will be responsible and accountable to the Central Treasury and ADB for managing the budget and for all expenditures related to the Program in accordance with the conditions of the Loan Agreement, government and ADB regulations, and other legal documents.

109. Based on activity-based financing by IA, an estimated 16 sub-accounts will be opened and managed by NIOs and PIOs to pay for eligible expenses<sup>38</sup>. The amount to be deposited into each sub-accounts will be equivalent to 6 months estimated expenditures.

110. The NIOs and PIOs will prepare liquidation and replenishment requests for their sub-accounts. These will be submitted to the PMO which will consolidate the requests before sending them to MEF. The use of sub-accounts and all disbursements will be made in accordance with ADB's *Loan Disbursement Handbook* (2012, as amended from time to time).

111. The imprest accounts and sub-accounts will be replenished on a regular basis to ensure liquidity of funds. PMO will ensure that all sub-accounts will be audited as part of the regular annual audits of program accounts.

## 2. Direct Payment and Statement of Expenditures

112. If required, loan proceeds may be disbursed directly by ADB to contractors, suppliers and consultants, in accordance with the approved contracts between the executing agency or the implementation agencies and the contractors, using direct payment procedures.

113. For individual payments up to \$100,000, ADB's statement of expenditures (SOE) procedure may be used to reimburse eligible expenditures and to liquidate advances. Sample forms for withdrawal of loan proceeds, replenishment of imprest accounts, and SOE can be downloaded from the ADB website.<sup>39</sup> SOE records should be maintained and made readily available for review by ADB's disbursement and review missions or upon ADB's request for submission of supporting documents on a sampling basis, as well as for independent audit.<sup>40</sup> The PMO will be responsible for ensuring that SOEs are operated in accordance with ADB's requirement.

114. Payments made directly from PMO, NIOs and PIOs will be supervised and authorized by the Treasury (at central and provincial levels respectively) upon receipt of payment documents. Based on the payments that have been authorized by the provincial treasury, each NIO and PIO will prepare withdrawal applications with associated payment documents/statements and the sub-account balance sheet (using the PMO format) and submit these to the PMO. Upon receipt of reimbursement applications and payment documents from NIOs and PIOs, the PMO will prepare an aggregated withdrawal application

<sup>38</sup> Number of sub-accounts by financing source and IA.

Financing Source	MAFF NIO	MOWRAM NIO	MLMUPC NIO	Three PIOs	Total by Source
ADB ADF Loan	1	1	0	3	5
GAFSP Grant	1	1	1	3	6
ADB SCF Loan	1	0	1	3	5
ADB SCF Grant	0	0	0	0	0
<b>Total by IA</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>9</b>	<b>16</b>

<sup>39</sup> Available at: [http://www.adb.org/documents/handbooks/loan\\_disbursement/default.asp](http://www.adb.org/documents/handbooks/loan_disbursement/default.asp)

<sup>40</sup> Checklist for SOE procedures and formats are available at:

[http://www.adb.org/documents/handbooks/loan\\_disbursement/chap-09.pdf](http://www.adb.org/documents/handbooks/loan_disbursement/chap-09.pdf)

[http://www.adb.org/documents/handbooks/loan\\_disbursement/SOE-Contracts-100-Below.xls](http://www.adb.org/documents/handbooks/loan_disbursement/SOE-Contracts-100-Below.xls)

[http://www.adb.org/documents/handbooks/loan\\_disbursement/SOE-Contracts-Over-100.xls](http://www.adb.org/documents/handbooks/loan_disbursement/SOE-Contracts-Over-100.xls)

[http://www.adb.org/documents/handbooks/loan\\_disbursement/SOE-Operating-Costs.xls](http://www.adb.org/documents/handbooks/loan_disbursement/SOE-Operating-Costs.xls)

[http://www.adb.org/documents/handbooks/loan\\_disbursement/SOE-Free-Format.xls](http://www.adb.org/documents/handbooks/loan_disbursement/SOE-Free-Format.xls)

and submit to the MEF for endorsement. Authorized withdrawal applications will be forwarded to ADB for processing and for replenishment to the imprest accounts.

115. Before the submission of the first withdrawal application, PMO should submit to ADB sufficient evidence of the authority of the person(s) who will sign the withdrawal applications on behalf of the borrower, together with the authenticated specimen signatures of each authorized person. The minimum value per withdrawal application is US\$100,000, unless otherwise approved by ADB. PMO is to consolidate claims to meet this limit for reimbursement and imprest account claims. Withdrawal applications and supporting documents will demonstrate, among other things that the goods, and/or services were produced in or from ADB members, and are eligible for ADB financing.

### **C. Accounting**

116. The MEF will maintain, or cause to be maintained, separate financial records for the project, by funding source, for all expenditures incurred on the project and prepare project financial statements in accordance with financial reporting arrangements acceptable to ADB.

117. The financing units established in PMO and each NIOs and PIOs involved in program implementation will maintain records and accounts that identify goods and services from loans and grants proceeds and financing sources, expenditures incurred, and use of government counterpart funds. These accounts will be established and maintained in conformity to the government's accounting laws and regulations and in accordance with sound accounting principles and standards acceptable to ADB. The PMO will be responsible for (i) preparing disbursement projections, (ii) requesting budgetary allocations for counterpart funds, (iii) collecting supporting documents, and (iv) collecting verified withdrawal applications from the NIOs and PIOs, preparing, and sending withdrawal applications to ADB.

### **D. Auditing and Public Disclosure**

118. The MEF will cause the detailed consolidated project financial statements to be audited in accordance with International Standards on Auditing by an auditor acceptable to ADB. The audited project financial statements will be submitted in the English language to ADB within 6 months of the end of the fiscal year by the executing agency.

119.. The annual audit report will include an audit management letter and auditor's opinions which cover (i) whether the project financial statements present a true and fair view or are presented fairly, in all material respects, in accordance with the applicable financial reporting framework; (ii) whether loan and grant proceeds were used only for the purposes of the project or not; (iii) the level of compliance for each financial covenant contained in the legal agreements for the project; (iv) compliance with the imprest fund procedure; and (v) compliance with use of the SOE procedure certifying (a) to the eligibility of those expenditures claimed under SOE procedures, and (b) proper use of the procedure in accordance with ADB's Loan Disbursement Handbook and the project documents.

120. Compliance with financial reporting and auditing requirements will be monitored by review missions and during normal program supervision, and followed up regularly with all concerned, including the external auditor.

121. The government and MEF have been made aware of ADB's policy on delayed submission, and the requirements for satisfactory and acceptable quality of the audited project financial statements.<sup>41</sup> ADB reserves the right to require a change in the auditor (in a

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<sup>41</sup> ADB Policy on delayed submission of audited project financial statements:

manner consistent with the constitution of the borrower/grantee), or for additional support to be provided to the auditor, if the audits required are not conducted in a manner satisfactory to ADB, or if the audits are substantially delayed. ADB reserves the right to verify the project's financial accounts to confirm that the share of ADB's financing is used in accordance with ADB's policies and procedures.

122. Public disclosure of the project financial statements, including the audit report on the project financial statements, will be guided by ADB's Public Communications Policy (2011).<sup>42</sup> After review, ADB will disclose the project 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. The Audit Management Letter will not be disclosed.

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- When audited project financial statements are not received by the due date, ADB will write to the executing agency advising that (i) the audit documents are overdue; and (ii) if they are not received within the next six months, requests for new contract awards and disbursement such as new replenishment of imprest accounts, processing of new reimbursement, and issuance of new commitment letters will not be processed.
  - When audited project financial statements have not been received within 6 months after the due date, ADB will withhold processing of requests for new contract awards and disbursement such as new replenishment of imprest accounts, processing of new reimbursement, and issuance of new commitment letters. ADB will (i) inform the executing agency of ADB's actions; and (ii) advise that the loan may be suspended if the audit documents are not received within the next six months.
  - When audited project financial statements have not been received within 12 months after the due date, ADB may suspend the loan.

<sup>42</sup> Available from <http://www.adb.org/documents/pcp-2011?ref=site/disclosure/publications>

## VI. PROCUREMENT AND CONSULTING SERVICES

### A. Advance Contracting and Retroactive Financing

123. No advance contracting or retroactive financing is required for the Program. However, to facilitate rapid start-up, the government and ADB agreed to a number of advance actions to expedite (i) recruitment of PIC; and (ii) procurement of vehicles and equipment for project management. However, no contract shall be signed before the Effective Date.

### B. Procurement of Goods and Works

124. All procurement of goods and works to be financed by the ADB loan as well as those to be financed by the GAFSP and PPCR loans and grants to be administered by ADB will be carried out in accordance with ADB's *Procurement Guidelines*. For civil works contracts valued at \$1,000,000 and above, or for goods valued at \$500,000 and above, procurement will be carried out following ICB procedures in accordance with ADB's *Procurement Guidelines*. NCB procedures will be followed for contracts valued at less than \$1,000,000 but more than \$100,000 for civil works and less than \$500,000 but more than \$100,000 for goods. Shopping procedures will be followed for contracts valued up to \$100,000. For NCB procedures, the provisions of the government's *Standard Operating Procedures* as agreed with ADB<sup>43</sup> will be followed. In case of inconsistency between ADB procedures and the *Standard Operating Procedures*, ADB procedures will be applied. The proceeds of the Loans and Grant will be disbursed in line with ADB's *Loan Disbursement Handbook* (July 2012, as amended from time to time).

125. Procurement of civil works packages and goods and services following ICB, NCB and shopping procedures will be carried out by the relevant NIO with support and assistance from the PIC. Contracts for simple civil works or for procurement of equipment valued at less than \$20,000 may be carried out by community groups following procedures for community participation//simple shopping in procurement in accordance with ADB's *Procurement Guidelines*. Procurement of contracts for precision land leveling valued at less than \$100,000 may be procured by the PIOs in each province following shopping procedures. The provincial governor's offices will establish a procurement committee in each province for procurement of precision land leveling contracts. All ICB contracts will require prior approval of ADB. The first contract under NCB, shopping and community participation procedures will be subject to ADB prior approval. Subsequent contracts of similar nature will be subject to the ADB post approval. For contracts to be awarded by community participation procedures, the first contract will require prior ADB approval, for subsequent contracts of similar nature the provincial local administration unit will maintain documents<sup>44</sup> for post review by ADB. Prior and post review thresholds are included in the procurement plan in Section D below.

126. Before the start of any procurement ADB and the government will review the public procurement laws of the central and provincial governments to ensure consistency with ADB's *Procurement Guidelines* and the government's *Standard Operating Procedures* (as amended from time to time).

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<sup>43</sup> Ministry of Economy and Finance (MEF) Manual on SOP for Externally Financed Project/Programs in Cambodia (May 2012). Financial Management Manual for Externally Financed Project/Programs in Cambodia (May 2012); MEF. Procurement Manual for Externally Financed Project/Programs in Cambodia, Phnom Penh (in two volumes) (May 2012).

<sup>44</sup> These include the commune development plan, bid invitation letters, bid opening statements, bid evaluation reports or approval documents, and signed contracts between the commune council and contractors, where applicable.

127. An 18-month procurement plan indicating threshold and review procedures, goods, works, and consulting service contract packages and national competitive bidding guidelines is in Section C below. It shall be reviewed annually thereafter and updated, as necessary.

### **C. Consulting Services**

128. All consultants including nongovernment organizations (NGOs) to be financed by the ADB loan as well as those to be financed by the GAFSP and PPCR loans and grants to be administered by ADB will be recruited according to ADB's *Guidelines on the Use of Consultants* (April 2010 as amended from time to time).<sup>45</sup>

129. The PIC will be recruited by the PMO to provide implementation support for policy development as well as to assist in implementation of the program with the provision of additional resources to both the PMO the NIOs and the PIOs to implement the Program as intended. The PMO will select and engage an international firm to provide approximately 161 international and 474 national person-months for a total of 635 person-months of consulting inputs to support all outputs. Consultants will be engaged following QCBS procedures with a standard ratio of 80:20.

130. National consulting firms will be recruited by the PMO following QBS or CQS procedures depending on the value of the contracts, to prepare feasibility studies, detailed design, bid documents and for supervision of construction of subprojects. The PIC will assist the PMO in the preparation of TOR for the national consulting firms, as well as for recruitment and supervision of the work of the national consultants. In accordance with ADB procedures if NGOs are invited to submit proposals on contracts where consulting firms are also invited, QBS procedures will be followed.

131. In addition, the PMO will recruit entities such as universities or NGOs to assist in the external monitoring of social and environmental safeguards following CQS procedures. The TOR for the PIC are detailed in Section F below, TOR for other consulting services will be developed with assistance from the PIC shortly after loan effectiveness.

132. For undertaking the feasibility study, and the design, establishment and pilot testing of WICI, in case it is determined to be feasible, an internationally reputed firm, working in association with a national firm, will be selected on a quality-based selection (QBS) for undertaking the feasibility study, and the design, establishment and pilot testing of WICI, should it be found feasible. The selected firm/s will work directly under the PMO under the overall guidance of PIC. The selected firm/s proposes a team of experts led by a weather-indexed crop insurance design and application expert. Other expertise needed to assist the team leader may include meteorology, hydrology, agronomy, financing, institutional analysis, social development, climate change projections and downscaling, and monitoring and evaluation, among others.

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<sup>45</sup> Checklists for actions required to contract consultants by method available in e-Handbook on Project Implementation at: <http://www.adb.org/documents/handbooks/project-implementation/>

**D. Procurement Plan**

**1. Basic Data**

<b>Program Name:</b> Climate Resilient Rice Commercialization Sector Development Program	
<b>Country:</b> Cambodia	<b>Executing Agency:</b> Ministry of Economy and Finance
<b>Loan and Grant Amount:</b> ADB - \$31 million, GAFSP - \$14.6 million, SCF Loan - \$5.0 million, and SCF Grant - \$4.5 million	<b>Loan Number:</b> xxxx
<b>Date of First Procurement Plan:</b> June 2012	<b>Date of this Procurement Plan:</b> Dec 2012

**2. Process Thresholds, Review and 18-month Procurement Plan**

**a. Program Procurement Thresholds**

133. Except as ADB may otherwise agree, the following process thresholds shall apply to procurement of goods and works.

<b>Method</b>	<b>Threshold</b>
International Competitive Bidding for Works	\$ 1,000,000 and above
International Competitive Bidding for Goods	\$ 500,000 and above
National Competitive Bidding for Works	More than \$ 100,000 but less than \$ 1,000,000
National Competitive Bidding for Goods	More than \$ 100,000 but less than \$ 500,000
Shopping for Works	Up to \$ 100,000
Shopping for Goods	Up to \$ 100,000
Community Participation in Procurement or Simple Shopping	Up to \$20,000

**3. ADB Prior or Post Review**

134. Except as ADB may otherwise agree, the following prior or post review requirements apply to the various procurement and consultant recruitment methods used for the Program.

<b>Procurement Method</b>	<b>Prior or Post <sup>ai</sup></b>	<b>Comments</b>
<b>Procurement of Goods and Works</b>		
ICB Works	Prior <sup>bi</sup>	
ICB Goods	Prior <sup>bi</sup>	
NCB Works	Prior/Post <sup>ci</sup>	
NCB Goods	Prior/Post <sup>ci</sup>	
Shopping for Works	Prior/Post <sup>ci</sup>	
Shopping for Goods	Prior/Post <sup>ci</sup>	
<b>Recruitment of Consulting Firms</b>		
QCBS (80:20)	Prior	EA/PMO will recruit program implementation consultants from a firm using FTP.
QBS (for design, studies, monitoring, supervision, and contract services)	Prior	Contract valued at more than \$200,000 for engagement of national consultants, NGOs and similar organizations to be recruited by the PMO.

<b>Procurement Method</b>	<b>Prior or Post <sup>a/</sup></b>	<b>Comments</b>
CQS (for design, studies, monitoring, supervision, and contract services)	Prior	Contracts valued at less than \$200,000 for engagement of national consultants will be recruited by the PMO.
QBS (for development and pilot testing of weather-indexed crop insurance)	Prior	An internationally reputed firm, working in association with a national firm, to be recruited by the PMO, will be selected to undertake the feasibility study, and the design, establishment and pilot testing of weather-indexed crop insurance, should it be found feasible.

CQS = Consultants' Qualification Selection; FTP= Full Technical Proposal; ICB = International Competitive Bidding; NCB = National Competitive Bidding; NGO = non-government organization; PMO = Program Management Office; QBS = Quality Based Selection; and QCBS = Quality- and Cost-Based Selection.

<sup>a/</sup> To be reviewed during implementation based on capacity of the EA.

<sup>b/</sup> The draft English language version of the procurement documents for each type of procurement should be submitted for ADB review and approval regardless of the estimated contract amount. First ADB-approved procurement documents should be used as a model for all subsequent procurement of similar work and type of procurement financed by ADB, and need not be subjected to further prior review.

<sup>c/</sup> The first contracts for NCB, shopping, and community procurement regardless of their value will be subject to ADB's prior review and approval, subsequent contracts for similar work will be subject to post-review.

#### **4. Goods and Works Contracts Estimated to Cost \$1 Million and Above**

135. The following table lists goods and works contracts for which procurement activity is either ongoing or expected to commence within the next 18 months.

<b>General Description <sup>a/</sup></b>	<b>Contract Value (\$)</b>	<b>Procurement Method</b>	<b>Prequalification of Bidders (Y/N)</b>	<b>Advertisement Date (quarter/year)</b>	<b>Comments</b>
Supply and installation of paddy drying and storage equipment	\$3.8 million	ICB	N	Q3-2014 (First Pkg)	3 Pkgs to be procured by NIO (MLMUPC)
Supply and installation of seed drying and storage equipment	\$4.0 million	ICB	N	Q4-2014 (First Pkg)	4 Pkgs to be procured by NIO (MAFF)
Construction of paddy drying and storage facilities	\$5.46 million	ICB	N	Q3-2014 (First Pkg)	3 Pkgs to be procured by NIO (MLMUPC)
Civil works for irrigation rehabilitation subprojects	\$10.06 million	ICB	N	Q3-2014 (First Pkg)	Approximately 8 Pkgs to be procured by NIO (MOWRAM)

ICB = International Competitive Bidding; MAFF = Ministry of Agriculture, Forestry and Fisheries; MOWRAM = Ministry of Water Resources and Meteorology; MLMUPC = Ministry of Land Management, Urban Planning and Construction; NIO = National Implementing Office; PMO = Program Management Office.

<sup>a/</sup> Approximately 30 subprojects to be carried out in the 3 project provinces over the 6 years of implementation. The exact number of subprojects and detailed cost of each package will be determined after feasibility studies are carried out.

## 5. Consulting Services Contracts Estimated to Cost \$100,000 and Above

136. The following table lists consulting services contracts for which procurement activity is either ongoing or expected to commence within the next 18 months.

General Description	Contract Value (\$)	Recruitment Method	International or National Assignment	Advertisement Date (quarter/year)	Comments
Program Implementation Consultants	\$7.18 million	QCBS (80:20)	474 pm national and 161 pm international	Q4 / 2012	By EA/PMO
National consultants for feasibility study, detailed design and construction supervision	\$2.22 million	CQS/QBS Depending on value of contracts	National	Commencing Q3 2014	Multiple contracts for each subproject to be recruited by PMO/NIO
Miller service contracts for capacity development	\$0.65 million	CQS	National	Q4 2014	4 Contracts, by PMO
Safeguard monitoring organization	\$0.12 million	QBS	National	Q4 2014	1 Contract recruited by PMO
Firm/s to undertake the design and feasibility study, and, if feasible, pilot testing of a weather-indexed crop insurance scheme.	\$2.00 million	QBS	International/ National	Q4 2014	To be recruited by the PMO

CQS = Consultants' Qualification Selection; PMO = Program Management Office; QBS = Quality Based Selection; QCBS = Quality- and Cost-Based Selection.

## 6. Goods and Works Contracts Estimated to Cost Less than \$1 Million and Consulting Services Contracts Less than \$100,000

137. The following table groups smaller-value goods, works and consulting services contracts for which procurement activity is either ongoing or expected to commence within the next 18 months.

General Description	Contract Value (\$)	Number of Contracts	Procurement / Recruitment Method	Comments
Construction of seed drying and storage facilities	\$2.34 million	4	NCB	To be procured by NIO (MAFF)
Civil works for irrigation rehabilitation subprojects	\$4.31 million	6	NCB	To be procured by NIO (MOWRAM)
Precision land leveling contracts	\$1.23 million	Approx. 15	Shopping	To be procured by the PIOs in each province
Procurement of vehicles	\$361,000	4	Shopping / UN method	Vehicles for all Program activities to be procured by PMO
Procurement of motorcycles	\$279,200	6	Shopping	Motorcycles for PDLMUPC and PDA

General Description	Contract Value (\$)	Number of Contracts	Procurement / Recruitment Method	Comments
				Staff to be procured by NIO (MLMUPC and MAFF)
Procurement of office equipment	\$322,500	4	Shopping	Equipment for the PMO, NIOs and 3 PIOs to be procured by respective PMO, NIO and PIOs
Procurement of equipment for seed laboratory	\$163,800	1	NCB	To be procured by NIO (MAFF)
Recruitment of monitoring entities	\$557,200	Multiple packages	CQS/QBS	To be procured by PMO
Bulk handling study	\$18,200	1	CQS	To be procured by PMO
Program audit	\$74,200	6 (one per year)	CQS	To be procured by PMO

CQS=Consultants Qualification Selection; MAFF = Ministry of Agriculture, Forestry and Fisheries; MOWRAM = Ministry of Water Resources and Meteorology; MLMUPC = Ministry of Land Management Urban Planning and Construction; NCB = National Competitive Bidding; NIO = National Implementation Office; PDA = Provincial Department of Agriculture; PDLMUPC = Provincial Department of Land Management, Urban Planning and Cadaster; PIO = Provincial Implementation Office; PMO = Program Management Office.

## 7. Indicative List of Packages Required Under the Program

138. The following table provides an indicative list of all procurement (goods, works and consulting services) over the life of the Program.

General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Procurement Method	Domestic Preference Applicable	Comments
<b>Works</b>					
Construction of paddy drying and storage facilities	\$5.46 Million	3	ICB	n	to be procured by NIOs (MAFF and MLMUPC)
Civil works for irrigation rehabilitation subprojects	\$10.06 million	8	ICB	n	to be procured by NIO (MOWRAM)
Construction of seed drying and storage facilities	\$2.34 Million	4	NCB	n	To be procured by NIO (MAFF)
Civil works for irrigation rehabilitation subprojects	\$4.31 Million	6	NCB	n	To be procured by NIO (MOWRAM)
Precision land leveling contracts	\$1.23 million	15	Shopping	n	To be procured by PIOs
<b>Goods</b>					
Supply and installation of paddy drying and storage equipment	\$3.80 million	3	ICB	n	to be procured by NIO (MAFF)

<b>General Description</b>	<b>Estimated Value (cumulative)</b>	<b>Estimated Number of Contracts</b>	<b>Procurement Method</b>	<b>Domestic Preference Applicable</b>	<b>Comments</b>
Supply and installation of seed drying and storage equipment	\$4.0 million	4	ICB	N	to be procured by NIO (MAFF)
Procurement of vehicles	\$361,000	4	Shopping/UN Method	N	To be procured by PMO, and NIOs
Procurement of motorcycles	\$279,200	6	shopping	N	To be procured by NIOs (MAFF, MLMUPC)
Procurement of office equipment	\$322,500	4	Shopping	N	To be procured by PMO/NIOs
Procurement of equipment for seed laboratory	\$163,000	1	NCB	N	To be procured by PMO/MAFF-NIO

#### **Consulting Services**

Program implementation consultants	\$7.18 million	1	QCBS (80:20) International and National	FTP	By EA/PMO
National consultants for feasibility study, detailed design and Construction Supervision	\$2.22 million	Multiple Up to 30	QBS / CQS	FTP/BTP	By PMO
Firm/s to undertake the design and feasibility study, and, if feasible, pilot testing of a weather-indexed crop insurance scheme.	\$2.0 million	1	QBS	FTP	By PMO
Recruitment of monitoring entities	\$557,200	Multiple	CQS/QBS	BTP	By PMO
Bulk handling study	\$18,200	1	CQS	BTP	By PMO
Program financial audit	\$74,200	6	CQS	BTP	By PMO

BTP = Biodata Technical Proposal; CQS = Consultants Qualifications Selection; FTP = Full Technical proposal; ICB = international competitive bidding; MAFF = Ministry of Agriculture Forestry and Fisheries; MLMUPC = Ministry of Land Management, Urban Planning and Construction; MOWRAM = Ministry of Water Resources and Meteorology; NIO = National Implementation Office; QCBS = Quality – and Cost Based Selection; QBS = Quality Based Selection; PIO = Provincial Implementation Office; and PMO = Program Management Office.

## **E. National Competitive Procurement Procedures**

### **1. General**

139. The procedures to be followed for National Competitive Bidding shall be those set forth for the "National Competitive Bidding" method in the government's *Standard Operating Procedures, Procurement Manual* of May 2012 issued under sub-decree number 74 ANK dated 22 May 2012 with clarification and modifications describe in the following paragraphs required for compliance with the provision of the ADB Procurement Guidelines.

### **2. Civil Works**

140. For NCB contracts, documents will be modeled on those developed for NCB under previous projects funded by the Asian Development Bank (ADB). This model is a single stage, single envelope model with post-qualification. In each province, the responsible implementation agency will submit the first draft English language version of the procurement documents for the first works contract to ADB for review and approval regardless of the estimated contract amount. For subsequent contracts, ADB will review the documents after award. ADB-approved procurement documents will be used as a model for all succeeding NCB contracts financed by ADB for the Program.

141. **Community Participation in Procurement.** No community participation in procurement for works is envisaged during the first 18 months of implementation. However, based on feasibility studies and detailed designs for subprojects, community participation in procurement for works may be required. In this regard, small scale works contracts with maximum value of \$20,000 may be awarded to community groups following procedures for community participation in procurement contained in ADB's Procurement Guidelines (2010, as amended from time to time). The first civil works contract in each province will be subject to ADB approval. Subsequently, the Planning and Investment Division (PID) will maintain specified documents for review by ADB, its consultant and independent auditor. Documents to be retained include the commune development plan, bid invitation letters, bid opening statements, bid evaluation reports or approved documents, signed contracts between the commune council and the contractors, and all proposals (including winning and unsuccessful bidders) where applicable. EA shall furnish the electronic bid evaluation reports (BER) and the supporting document to ADB CARM upon award contract.

### **3. Recruitment of Consultants**

142. For ADB-funded contracts, either QCBS, CQS, QBS, will be applied. For QCBS, full technical proposals will be required. To calculate the firm's total score, the technical proposals will be given a weight of 80% and the financial proposal 20%. For CQS, a firm/NGO/institute will be chosen from amplified EOI submitted in response to a detailed advertisement. The first-ranked firm will be requested to submit a combined biodata technical proposal and financial proposal as a basis for negotiations with the EA.

### **4. Application**

143. Contract packages subject to NCB procedures will be those identified as such in the Procurement Plan. Any changes to the mode of procurement from those provided in the Procurement Plan shall be made through updating of the Procurement Plan, and only with prior approval of ADB.

## **5. Eligibility**

144. Bidders shall not be declared ineligible or prohibited from bidding on the basis of barring procedures or sanction lists, except individuals and firms sanctioned by ADB, without prior approval of ADB.

## **6. Advertising**

145. Bidding of contracts of more than \$25,000 for goods and works and for all services shall be advertised in local newspapers. For procurement of civil works under the community participation component, advertisements shall be posted on the bulletin boards of the concerned communes and on the notice board of the Planning and Investment Division (PID).<sup>46</sup> If some contractors, service providers or suppliers are based in district towns, the advertisements must be posted on the district notice board as well as the C/S and the province/municipality. Bidding of ICB contracts estimated at \$500,000 or more for goods and related services or \$1,000,000 or more for civil works shall be advertised on ADB's website via the posting of the procurement plan.

## **7. Anti-Corruption**

146. Definitions of corrupt, fraudulent, collusive and coercive practices shall reflect the latest ADB Board-approved Anti-Corruption Policy definitions of these terms and related additional provisions.

## **8. Bid Evaluation**

147. Unless otherwise agreed ADB will review the bid evaluation report and recommendation for contract award, for all contracts, on a prior review basis.

## **9. Rejection of all Bids and Rebidding**

148. Bids shall not be rejected and new bids solicited without ADB's prior concurrence.

## **10. Bidding Documents**

149. The bidding documents provided with the government's Procurement Manual shall be used to the extent possible. Documentation prepared for the first contract under competitive bidding arrangements shall be submitted for ADB review and approval, regardless of the estimated contract amount, in accordance with agreed review procedures (prior and post review). Once accepted, the ADB-approved procurement documents will then be used as a model for all similar procurement financed by ADB for the Program, and need not be subjected to further review unless specified in the procurement plan. Bidding documents for Community Participation/Simple Shopping will follow the format described in section 3 of the PIM dated January 2009.

## **11. Member Country Restrictions**

150. Bidders must be nationals of member countries of ADB, and offered goods, works and services must be produced in, and supplied from, member countries of ADB.

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<sup>46</sup> ExCom: Executive Committee, and PRDC: Provincial Rural Development Committee

## **F. Consultants' Terms of Reference**

### **1. Background**

151. Consultants to be financed from ADB resources include the PIC, as well as national consultants for preparation of feasibility studies, preparation of detailed design, and supervision of construction of subprojects. An internationally reputed firm, working in association with a national firm, will be selected on a quality-based selection (QBS) for undertaking the feasibility study, and the design, establishment and pilot testing of WICI, should it be found feasible. In addition, the Program will finance the cost of entities such as NGOs or universities for external monitoring of safeguard measures, including resettlement, environment, gender and social development issues. All consultants and institutions to be financed by the ADB loan as well as those to be financed by the GAFSP and PPCR loans and grants to be administered by ADB will be selected and engaged in accordance with the *ADB's Guidelines on the Use of Consultants* (2010, as amended from time to time).

152. The PMO will recruit the PIC from a consulting firm following QCBS (80:20) procedures. PMO will also recruit an international firm in association with a national firm on a quality-based selection (QBS) for undertaking the feasibility study, and the design, establishment and pilot testing of WICI, should it be found feasible. National consultants for preparation of feasibility studies, preparation of detailed design, and supervision of construction, will be recruited by the PMO following CQS or QBS procedures depending of the estimated value of the contracts. The Program will also support the recruitment of a national firm to design and test a weather indexed crop insurance pilot program following SSS procedures. The TOR outlined herein relate to the PIC only. The TORs for WICI are presented in Section E.1.c of this document. TORs for other consultancy assignments will be developed by the PMO with assistance from the PIC after loan effectiveness.

### **2. Program Implementation Consultants**

153. The PIC will be selected and engaged in accordance with *ADB Guidelines on the Use of Consultants*. The PMO will recruit the PIC following QCBS procedure with a standard quality to cost ratio of 80:20. The TORs of the PIC are outlined below.

154. The PIC comprise a total of 161 person-months of international specialists and 474 person-months of national specialists—for a total of 635 person-months of specialist inputs. Advance action for recruitment of PIC has been approved to facilitate the timely mobilization of consultants. The consulting team will be fielded shortly after loan effectiveness and will provide support and advice to the PMO, NIOs and the PIOs throughout the Program.

155. The PIC will support the PMO, NIOs and PIOs in technical areas of engineering design and construction supervision, as well as provide valuable quality assurance with respect to safeguard issues and sustainability of the subproject. International expertise will be provided in: (i) project management, (ii) policy development; (iii) business development and commercialization; (iv) rural infrastructure engineering and hydrology; (v) financial management; (vi) marketing; (vii) land use planning; (viii) rice and seed production; (ix) procurement; (x) social and environmental safeguards and climate change; and (xi) private public partnerships.. National specialists will be required in similar technical areas to facilitate technology transfer from international specialists and to handle the program activities in the absence of the international consultants. In addition to the PIC, experts will be engaged by PMO for undertaking the feasibility study, design and establishment and pilot testing of WICI in selected areas.

	Unit	2014	2015	2016	2017	2018	2019	Total
<b>1. International Consultants</b>								
a. Business Development & Commercialization Specialist (Team Leader)	Months	3	9	6	6	6	2	32
b. Rural Infrastructure Engineer /Hydrologist	Months	3	6	6	3	-	-	18
c. Seed Certification Specialist	Months	0	6	3	-	-	-	9
d. Extension Specialist	Months	0	3	3	1	1	-	8
e. Land Use Planning /GIS Specialist	Months	2	4	1	1	-	-	8
f. MIS/Database Specialist	Months	-	3	1	1	-	-	5
g. Finance Specialist	Months	-	3	1	1	-	-	5
h. Gender and Social Specialist	Months	3	3	1	-	-	1	8
i. Environment and Climate Change Specialist	Months	0	4	2	2	3	1	12
j. Procurement Specialist	Months	3	10	10	10	3	-	36
k. PPP Specialist	Months	0	6	6	-	-	-	12
l. Policy Development Specialist	Months	-	4	4	-	-	-	8
<b>Subtotal</b>	Months	14	61	44	25	13	4	161
<b>2. National Consultants</b>								
a. Rural Infrastructure Engineer/ Hydrologist, D/TL	Months	3	11	11	11	11	8	55
b. Seed Certification Specialist	Months	0	6	3	3	-	-	12
c. Marketing Specialist	Months	-	2	2	2	2	-	8
d. Community Mobilization Specialist	Month	-	3	3	3	3	3	15
e. Land Use Planning/GIS Specialist	Months	3	12	12	9	6	-	42
f. MIS/Database Specialist	Months	-	6	4	4	2	-	16
g. Business Advisory Finance Specialist	Months	-	6	6	1	1	1	15
h. Gender and Social Specialist	Months	3	6	6	3	3	3	24
i. Environment and Climate Change Specialist	Months	3	6	6	6	3	3	27
j. Resettlement Specialist	Months	3	6	6	3	-	-	18
k. Business Development Specialist (milling)	Months	3	12	12	12	12	12	63
l. Procurement Specialist	Months	3	10	10	10	3	-	36
m. Policy Development Specialist	Months	3	12	12	12	6	-	41
o. Implementation Support Specialists (for provinces)	Months	6	21	21	21	18	11	102
<b>Subtotal</b>		30	119	114	100	70	41	474
<b>Total</b>		44	180	158	125	83	45	635

### 3. Individual TOR for Program Implementation Consultants

#### a. Business Development and Commercialization Specialist (Team Leader - 32 pm international and 63 pm national)

156. The Business Development and Commercialization Specialist shall be responsible for the deliverables under the consulting services contract to the government to assist in the implementation of the Program. The Program is a complex design requiring broad skills in commercial fields ranging from rice production through product aggregation, processing to ultimately the export of polished rice. As Team Leader, the Specialist is responsible for the support of the Executing Agency (MEF) who in turn is ultimately responsible for the timely delivery of program outcomes. The Team Leader will have at least 15 years' experience in management roles in modern rice value chains, and will have proven project management skills. S/he will have a comprehensive understanding of the commercial operations of the rice value chain in the region, including production, trading, storage, and milling technology, distribution and with methods for supporting business development among farmer groups.

S/he will have tertiary qualifications from an established and recognized institution, and will be fluent in the English language.

157. The Specialist should be familiar with internationally funded development projects and have at least five years' experience as a project manager. S/he must also be familiar with the financial, reporting requirements and procurement procedures required by international financing organizations. The Specialist will have well developed communication skills, both verbal and written, and have proven management skills to lead a team of international and local specialists.

*i) Program Management Responsibilities*

158. The Team Leader will supervise the international and national consultants appointed to the Program Implementation Consulting Team. Responsibilities include the following:

- i. The coordination of consultant inputs and be responsible for deliverables under the Program Implementation Consulting contract;
- ii. Provide routine progress reports including the progress of gender action plan (GAP) implementation to the National Program Director, the EA and ADB on the progress of implementation outlining any issues that require consideration by higher authorities;
- iii. Support the EA in their development of annual work plans and budgets for the implementation of the Program;
- iv. Assist the PMO in coordinating the activities of the NIO and PIO staff;
- v. Assist the PMO in attending to all social and environmental safeguards associated with subproject implementation;
- vi. Assist the PMO, NIO and PIOs in managing the imprest accounts, financial management and reporting and in the replenishment of imprest accounts;
- vii. Assist in maintaining performance monitoring information as to implementation progress as well as routine impact monitoring through annual surveys managed by the PMO;
- viii. Assist the PMO in maintaining timely reporting of implementation progress to the financiers and the government through the management structures of the Program;
- ix. Provide guidance to various team members in the development of information packages and knowledge products for dissemination and web-posting; and
- x. Maintain rigorous surveillance of the quality controls in the construction of civil works financed under the Program.

*ii) Business Development Skills and Responsibilities*

159. Apart from the above management responsibilities, the international specialist has technical responsibilities under the consulting services contract as outlined below. In carrying out these responsibilities, the international specialist will be working in cooperation with the national business development specialist. Their duties include:

- i. Assess production processes at rice mills, their economic efficiency and identify opportunities for improvement/optimization of mills' operations with the objective to increase exports (specifically in terms of equipment, resource management, and waste management - similar to Cleaner Production assessment);

- ii. Propose specific recommendations for improvements to each of the rice mills, and provide consultancy/advice for them to implement these recommendations, taking into account financial constraints and opportunities;
- iii. Assess the capacity and training needs of the rice mill managers and operational staff involved;
- iv. Based on the assessment, develop training materials for rice millers in topics such as: milling equipment (choice of equipment, technical optimization, operation and maintenance); Quality Control; and Cost Management (including energy & waste);
- v. Identify and/or develop concise and user-friendly technical equipment guides in Khmer language, for publication & distribution to Rice Mill Associations' members;
- vi. Review and assess weaknesses in mill management systems document mill inventory systems, equipment maintenance schedules, accounts management and product/sales record keeping systems;
- vii. In conjunction with the Financial Specialist, assist members of the rice milling associations to develop and promote bankable business plans for access to capital for enterprise development;
- viii. Work closely with the millers in developing their business skills and coordinating capacity building program;
- ix. Facilitate the integration of the commercial rice value chain at all stages, with particular focus on developing markets among farmer cooperatives and others for the certified seed which the Program will produce, linking farmers to millers and farmer seed producers to the seed supply program or other similar programs;
- x. Facilitate the promotion of new seed varieties coming from the Cambodian national program and commercial sources;
- xi. Design and supervise a program of business skills development and management capacity building for Farmer Cooperatives in the program target area;
- xii. Develop information and knowledge products for dissemination and web-posting; and
- xiii. The Program will provide a range of contract services to farmers and farmer cooperatives, for example land leveling, seed quality control, and post-harvest handling. The Specialist will assist in the design and supervise their adoption amongst program beneficiaries.

**b. Rural Infrastructure Engineer/Hydrologist (18 pm international and 55 pm national)**

160. Technical input is needed to support engineering design of irrigation facilities in this challenging environment surrounding Tonle Sap. The specialists will have a degree in civil engineering from a recognized institution and will have more than 10 years' work experience in design, construction supervision and/or construction management work on rural infrastructure projects, including at least 5 years on irrigation or other water resource infrastructure. The background must include at least 3 years each of design and construction supervision experience. For the international specialist, experience in Cambodia or elsewhere in the Greater Mekong Sub-region will be an advantage. The role of the engineers is to provide the advice needed to enable the engineering design firms to adhere to design standards, base designs on reliable surveys, hydrological studies and other relevant information, and ensure that potential increased peak flow, periods of inundation and periods

drought, in line with the most recent climate change projections, are taken into account. Duties of the specialists will include the following:

- i. Assist the process of consulting with local government to identify and prioritize candidate investments in irrigation infrastructure for rehabilitation, extension or upgrading;
- ii. Provide guidance and assistance in the preparation of feasibility studies, including identifying design options to avoid or minimize land acquisition and resettlement impacts, and to identify and design environmental mitigation measures;
- iii. Assist with the commissioning and preparation of detailed instructions for survey work;
- iv. Advise on selection and possible adaptation of design standards and review detailed designs for adherence to design standards;
- v. Ensure that climate change projections, in particular risks of higher peak flows, longer periods of drought and longer periods of inundation of the schemes are identified and taken account of in the design in a practicable manner;
- vi. Review quantity and cost estimates;
- vii. Review specifications, drawings and bills of quantity for consistency, completeness and accuracy, so that they can be incorporated into bid documents;
- viii. Assist with the establishment of procedures for inspection and approval of construction, and assist and guide construction supervision by PDWRAMs and/or local engineering firms; and
- ix. Assist PDWRAMs and FWUCs in the preparation of workable plans for O&M of the rehabilitated or upgraded schemes.

**c. Seed Certification Specialist (9 pm international and 12 pm national)**

161. Cambodia passed its Seed Law in 2008 but to date, lacks the enabling regulations for the law to be implemented. It is proposed that the Program appoint an adviser to prepare regulations to subtend the law and that the regulations include statutes for a National Seed Certification Scheme. The adviser should prepare a manual for conduct of the rice seed certification scheme which includes a list of positions involved in its implementation and a job description for each position. It should conclude with a schedule of activities on a timeline.

162. The specialist appointed to this position should have tertiary qualifications from a recognized institution in agricultural science or related field. S/he should have a minimum of 20 years working experience in the seed industry, preferably in dealing with the development of rice seed, some of which should have been obtained in the SE Asian region. S/he should be familiar with the proprietary rights of seed developers and with commercial multiplication of seed material. S/he should also have experience with the development of certification systems and the operationalization of institutions charged with responsibility for this function. Familiarity with the international quality certification systems available would be seen as an advantage. The joint responsibilities of the international specialist and the national specialist are identified below. The appointees would be responsible for working closely with MAFF's GDA and in particular, the rice department in developing the proposed certification initiatives. The specialists will answer to the international team leader for the PIC engaged to assist the government in the implementation of the investment project. Details of the seed certification specialists' include:

- i. Prepare necessary regulations for the 2008 Seed Law. While the Seed Law has much to say about intellectual property in the form of plant varietal rights, it

- says little about operational attributes transforming it into a practical guide. The set of regulations should achieve this outcome;
- ii. The set of regulations must contain operational guidelines for a national seed certification scheme for rice, providing for the separation of a range of varieties suited to export markets;
  - iii. The adviser should provide a training course which will incorporate instruction manuals for the persons filling the positions involved in the scheme. The course should include persons from the Department of Rice Cropping and from the Department of Agricultural Extension;
  - iv. Seed certification inspectors will be drawn from Offices of Agricultural Extension within the provincial departments of agriculture and from selected district agricultural offices. These staff should participate in a training course in the first year and refresher courses in two subsequent years;
  - v. The training should take trainees into the field and be experiential;
  - vi. In the second and third year of the Program, the advisers should facilitate feedback from those in each stage of the marketing chain for seed production. Interactive sessions should reveal problems, constraints and bottlenecks and solutions should be devised at these sessions;
  - vii. Develop information packages and knowledge products on seed production, certification and adoption for dissemination and web-posting; and
  - viii. Make adjustments to the regulations and to operational guidelines to correct the regulations and manuals and improve their utility and relevance.

**d. Extension Specialist (8 pm international)**

163. The extension program proposed has ramifications throughout the Program. Proposed interventions provide training and development activities with the national Department of Agricultural Extension (DAE), the provincial offices of agricultural extension and provincial offices of agricultural engineering, with farmer cooperatives and input suppliers. It calls for cooperation with NGOs and integration with the national program for decentralization and de-concentration. Some interventions apply training of the trainers approach with cascade training, others involving sub-contracting extension initiatives. The use of input suppliers as intermediaries is a means of transfer of technology which would appear to have much to offer. Mass communications are employed to generate interest and awareness in the communities about present and future innovations. It is proposed that an Extension Specialist be appointed for eight months in the first three years of the Program to facilitate the improvement of the provision of technical support services to farmers.

164. The specialist appointed to this position should have tertiary qualifications from a recognized institution in agricultural science or related field. S/he should have a minimum of 20 years working experience in agricultural extension, preferably in dealing with the development of rice production, some of which should have been obtained in the SE Asian region. S/he should be familiar with the various models used in the provision of technical support services to farmers and farmer groups, many of which would have been obtained in the SE Asian region. S/he should also have experience with rice agronomy and also in extension methodologies as well as with institutions charged with responsibility for this function. The joint responsibilities of the international specialist and the national specialist are identified below. The appointees would be responsible for working closely with MAFF's DAE and also, the rice department in developing the proposed technology packages. The specialists will answer to the international team leader for the PIC engaged to assist the government in the implementation of the investment project. Particular duties for the Extension Specialists include:

- i. Set up dialogue the DOE from which the program of extension and farmer organization development can be coordinated;
- ii. Working in close cooperation with DOE under MAFF, prepare an annual plan and budget to deliver the support under the Program to agricultural development initiatives through subprojects;
- iii. The extension program will be integrated with the subproject construction program of seed and grain handling and drying facilities. It will be functionally linked in terms of numbers of personnel, their location and the rate at which facilities that service them come on stream. The Extension Specialist must be part of the planning process and with his counterpart, make sure the persons involved in an aspect of the Program, be it selling inputs, growing seed or producing bulk rice, have been introduced to the training program in advance of the production;
- iv. S/he should cooperate with other similar projects such as the World Bank's program to assist in the formation and equipping of 40 cooperatives, ADB's Poverty Reduction Smallholder Project, the HARVEST initiative etc. following MAFF's extension system based on agro-ecosystem analysis;
- v. The extension program shall conform with the National Committee for Sub-national Democratic Development (NCDD) district integration workshops and provincial investment planning. Any concept of sustainability must make sure it works inside the system. This also goes for the land zoning practice and the extension program must be aware and check that any farming development is zoned for the purpose. In the scheme of things the commune agro-ecosystems analysis (AEA) should cover this eventuality but AEA is an DAE activity and the checking process must become institutionalized;
- vi. Supervise the production of extension material, including information packages and knowledge products on climate change adaptation practices for dissemination, using the most appropriate media including the website for the purpose;
- vii. Assist beneficiary farmer groups under the Program to strengthen their group structure and commitment to same within the context of the Program outcome;
- viii. Assist in the identification of competent specialists who will contribute to the upgrading of Technical Information Packages that relate o rice production and handling;
- ix. Assist in the development of subproject contracts to be issued by Provincial implementation offices within the provincial governors' offices to provide technical support services within the area of influence of subprojects financed by the Program; and
- x. Facilitate the development of extension monitoring mechanisms to assist the implementation offices to carry out impact studies based on criteria to be developed by the extension specialists.

**e. Land-use Planning/GIS Specialist (8 pm international and 42 pm national)**

165. The specialist will have post graduate qualification in GIS or related subject from a recognized institution and have at least 15 years' experience working in land-use planning and zoning, agro-ecosystem analysis, mapping of rice ecosystems and soil classification with solid understanding of rice production systems for internationally funded development projects in developing countries, some of which have been undertaken in Cambodia. The national specialist should also have also considerable experience in GIS for land resource management and have familiarity with the Cambodian Commune Land Use Planning

(CLUP) and AEA mapping of rice ecosystem and soil classification with solid understanding of Cambodian rice production systems as well as have experience in internationally funded development projects. S/he must have demonstrated the capacity to train national staff in Remote Sensing and GIS concepts and methodologies, including awareness-raising for data management and dissemination amongst different agencies. Training skills would also be an advantage to the international and national specialist. Duties of the specialists will include the following:

- i. Review the progress and procedures of the CLUP and zoning and AEA, resolve any duplication activities, and initiate an integrated approach for implementation of CLUP/AEA;
- ii. Review and, in consultation with MAFF, update as necessary classification of the Cambodian rice ecosystem and the Cambodian Soil Classification for rice, and to develop mapping procedures for both classifications;
- iii. Identify and assess the required hardware and software for national and provincial GIS units for land-use planning/zoning and mapping, assist with the procurement, setup and install all necessary software and hardware, conduct training as required, and maintain and operation the systems installed;
- iv. Assist in identification and selection of target communes to be conducted CLUP/AEA;
- v. Assist in identification, selection and procurement of motorbikes for district CLUP/AEA team;
- vi. Prepare the TOR for commune land-use planning/AEA, rice ecosystem and soil mapping classification and ensure the implementation is well coordinated between national, provincial, district and commune as well as between MAFF and MLMUPC;
- vii. Assist in the preparation and implementation of training activities with regard to the land-use planning/AEA, the mapping of rice ecosystem and soil classification;
- viii. Supervise the implementation of commune land-use planning/AEA, the mapping of rice ecosystem and soil classification, and the production and certification of commune land-use maps;
- ix. Liaise with MIS/Database specialist in ensuring all completed CLUP/AEA are properly documented, stored, maintained and shared among stakeholders;
- x. Assist in the preparation of progress and other reporting as required; and
- xi. Review and provide recommendations regarding the quality of completed CLUP/AEA, rice ecosystem and soil classification maps.

**f. MIS/Database Specialist (5 pm international and 16 pm national)**

166. The MIS/Data Management Specialist will have a post graduate qualification in management information systems or related database development and management from a recognized institution and will have more than 15 years' experience working in the management information systems including web-based database development, maintenance and operation for internationally funded development projects, some of which will have been undertaken in Cambodia. Experience in development and operation of the Farming System Management Information Systems (FSMIS) and CLUP database will be considered an asset. S/he must have demonstrated the capacity to train national staff in MIS/Database concepts and methodologies, including raising awareness on data management and dissemination across different agencies. Duties of the specialists will include the following:

- i. Review the operation and maintenance of FSMIS in Department of Agriculture Extension, CLUP database in Department of Land Management and Urban Planning, design and develop an integrated web-based database that allow to capture, store, manage, and share of both existing CLUP and AEA databases;
- ii. Identify and assess the required hardware and software for national and provincial CLUP/AEA Units, assist with the procurement, setup and install all required software and hardware, conduct any necessary training, and support with maintenance and operation of those units;
- iii. Prepare the TOR for database operation and maintenance in both national and provincial offices and ensure the implementation is well coordinated between national, and provincial, as well as between MAFF and MLMUPC;
- iv. Liaise with Land Use Planning/GIS specialist design appropriate reporting format, data entry and exchange procedures, ensure all information collected by CLUP/AEA is well documented, stored, managed and shared among stakeholders;
- v. Conduct training and supervise data entry and operation in both national and provincial offices;
- vi. Assisting in preparation and web-posting of progress reports, information packages and knowledge products including climate change adaptation options and experience, and other reporting as required; and
- vii. Review and provide recommendations regarding the quality and operation of completed CLUP/AEA database.

**g. Finance Specialist (5 pm international and 15 pm national)**

167. The overall goal for the Finance Specialists is to make the rice sector stakeholders more bankable and the financial sector more capable of financing the rice sector activities. The input will support increased credit access for stakeholders in the rice value chain, in particular for rice producers/farmers, rice based agricultural cooperatives and rice processing trading enterprises. The Specialist will give support to financial management capacity building for potential borrowers in the rice sector - as well as assisting the financial sector, primarily the commercial banks and microfinance institution with the development of financing products targeting rice sector enterprises.

168. The International Financing Specialist should have a solid background on management level in agricultural business development and financing with a minimum of 10 years of practical experience. The Specialist should have experience with agricultural banking/financing activities from South East Asia. Duties of the Specialist will include:

- i. Give support to the promotion of rice sector activities aiming at increased investor confidence and increased willingness to finance the sector;
- ii. Initiate and support the development of training material for financial management training for various groups of rice sector stakeholders to improve their capacity in strategic financial management (budgeting, cash-flow projections and accounting systems);
- iii. Support establishment, implementation and follow-up of a financial management training program for rice sector enterprises (Agricultural cooperatives and rice mill/trading enterprises);
- iv. Support establishment, implementation and follow-up of a Rice Sector Financing training program for Commercial bank and MFI credit management staff;

- v. Assisting commercial banks and financial institutions in the development of new financing products for rice sector activities;
- vi. Support the Business Advisory Service supply system for ad hoc financial management services to rice sector enterprises with supplier involvement from local consulting companies and NGOs;
- vii. Support the Business Advisory Service Suppliers in providing qualified counseling and institute a system for quality control and impact indicators; and
- viii. Support implementation of workshops/conferences for the rice sector and its most potential partners - financial sector and public institutions.

169. As counterpart to the International Specialist, the National Financing Specialist will give support to make the rice sector stakeholders more bankable and the financial sector more capable of financing the rice sector activities. The position will support increased credit access for stakeholders in the rice value chain, in particular for rice producers/farmers, rice based agricultural cooperatives and rice processing trading enterprises. The Specialist will give support to financial management capacity building for potential borrowers in the rice sector - as well as assisting the financial sector, primarily the commercial banks and microfinance institution with development of financing products targeting rice sector enterprises. The National Financing Specialist should have a solid background in agricultural business development and financing with a minimum of 5 years of practical experience. The Specialist should have hands-on experience with agricultural banking/financing activities in Cambodia. Duties of the Specialist will include the following:

- i. Give support to the promotion of rice sector activities aiming at increased investor confidence and increased willingness to finance the sector;
- ii. Support the development of training material for financial management training for various groups of rice sector stakeholders to improve their capacity in strategic financial management (budgeting, cash-flow projections and accounting systems);
- iii. Support establishment, implementation and follow-up of a financial management training program for rice sector enterprises (Agricultural cooperatives and rice mill/trading enterprises);
- iv. Support establishment, implementation and follow-up of a Rice Sector Financing training program for Commercial bank and MFI credit management staff;
- v. Assisting commercial banks and financial institutions in the development of new financing products for rice sector activities;
- vi. Support the establishment of a Business Advisory Service supply system for ad hoc financial management services to rice sector enterprises with supplier involvement from local consulting companies and NGOs;
- vii. Support the Business Advisory Service Suppliers in providing qualified counseling and institute a system for quality control and impact indicators; and
- viii. Support implementation of workshops/conferences for the rice sector and its most potential partners - financial sector and public institutions.

**h. Gender and Social Specialist (8 pm international and 24 pm national)**

170. The specialists will have tertiary qualifications in a relevant social science and relevant experience of more than 10 years for the international position, and at least 5 years for the national position. The international specialist must have had previous experience working in rural Cambodia, and additional experience in the GMS region would be an advantage. Both specialists will be familiar with ADB and government's Gender, Indigenous Peoples and Social Development policies, plans and strategies, and contemporary

development issues. Previous experience as trainer is necessary as both positions require significant input delivering training at various levels. Specialists are requested to coordinate and work closely with CARM gender team to ensure the effective implementation, monitoring and reporting of the gender action plan (GAP). Duties of the Specialists will include the following:

- i. Review the PPTA Gender and Social Report and the Gender Action Plan (GAP);
- ii. Prepare a GAP implementation road map with milestones;
- iii. Monitor and prepare progress reports of implementation of GAP and ensure that the progress reports will be included in the Project progress reports to National Program Director, the EA and ADB
- iv. Update and revise the GAP as needed and bring any emerging issues to discuss with the relevant specialists;
- v. Ensure the key achievements of gender and comprehensive GAP progress report is pared and include in the project mid-term review and project completion reports
- vi. Review program initiated draft policy submissions to ensure gender and IP inclusion;
- vii. Facilitate linkages with Ministry of Health, Communicable Disease Project Phase 2, the Zoonotic Disease Unit and MAFF and DOA to provide “occupational health and safety” training to, especially, women poultry raisers;
- viii. Facilitate the mainstreaming of safety issues into MAFF/PDA animal husbandry training;
- ix. Prepare gender mainstreaming training material and undertake basic staff training at central and provincial levels;
- x. Facilitate gender mainstreaming training at community level;
- xi. Train provincial and district staff and contracted service providers in establishing community based Construction Sub Committees, role and responsibilities;
- xii. Train provincial and district staff and contracted service providers in establishing and strengthening women’s savings and loan group;
- xiii. Review and monitor program progress and monitoring reporting including baseline surveys and end-line impact evaluation reports to ensure data is gender disaggregated; and
- xiv. Assist in the dissemination of Gender Policy and gender awareness training to private mill and grain handling facility operators.

**i. Environment and Climate Change Specialists (12 pm international and 27 pm national)**

171. The specialists will have appropriate tertiary qualifications in environmental science or natural resource management from a recognized institution and will have more than 8 years’ experience working in the field of environmental management, including climate change adaptation, for internationally funded development projects, some of which will have been undertaken in Cambodia or elsewhere in the Greater Mekong Sub-region. The national specialist will also have considerable experience in environmental monitoring and will be familiar with the laws of Cambodia associated with the environment as well as having had experience in internationally funded development projects, preferably related to infrastructure development and climate change adaptation options, as an environmentalist.

Training skills would also be an advantage to the international and national specialists. Duties of the specialists will include the following:

- i. Review the environmental recommendations of the PPTA Final Report and the formats for environmental examinations contained therein;
- ii. Brief the staff of the PMOs in participating provinces on environmental procedures and requirements for subproject preparation;
- iii. Visit each subproject during the subproject preparation to ensure environmental safeguards are being properly conducted;
- iv. Assist the PMO with the internal review of the initial environmental examinations and associated environmental management plan prepared for each subproject and assist with updating the draft IEEs in response to comments received;
- v. Develop relevant information packages and knowledge products for dissemination and web-posting; and
- vi. Assist in the preparation and implementation of training activities with regard to the environmental aspects of the Program.

**j. Procurement Specialist (36 pm international and 36 pm national)**

172. The procurement specialists will have graduate qualifications in business administration, engineering or other related fields and at least 10 years' experience in procurement, preparation of tender and contract documents, evaluation of bids, and contracts managements. The candidates will be fully conversant with ADB Procurement Guidelines (2010) and the Guidelines on the Use of Consultants (2010). The consultants will have demonstrated ability to work in a multidisciplinary team and will possess excellent communication (written and oral) skills in English. The consultants will assist the Executing Agency (EA) to undertake procurement activities following ADB's Guidelines and those specified by the government; the Procurement Plan; and the PAM. In particular, the specialists will:

- i. Review and update the Procurement Plan included in the PAM;
- ii. Assist in preparation of efficient packaging for the procurement of goods and works;
- iii. Prepare bidding documents for procurement of goods and works following ICB, NCB and shopping procedures based on the threshold indicated in the procurement plan;
- iv. Assist in the issuance and opening of bids for procurement of goods and works;
- v. Assist in the evaluation of bids, the preparation contracts and negotiations with contractors and suppliers;
- vi. Assist in the preparation of invitation for EOIs for recruitment of consulting packages;
- vii. Assist in the preparation of shortlist, Request for Proposals and evaluation of proposals for consulting services following QBS or CQS procedures based on threshold set up in the Procurement Plan;
- viii. Assist in the preparation of contract and negotiations with consulting firms; and
- ix. Train and build capacity of EA staff in procurement of goods, works and consulting services in accordance with ADB's procedures.

**k. Public-Private Partnership Specialist (12 pm international)**

173. An International public-private partnership (PPP) specialist will be engaged to guide and advise the government regarding the arrangements for the paddy drying and storage and seed drying and storage facilities to be built under the Program. The specialist should have at least 15 years working experience in formulating and implementing PPP arrangements, preferably in the agro-business industry. Country level experience with Cambodia agro-industry would be a definite asset.

174. The Specialist will be responsible to review and advise the government regarding the proposed PPP contract arrangements and assist the government in the transparent selection of the PPP partner. The International Specialist will undertake the following tasks:

- i. formulate criteria and transparent procedures acceptable to ADB and the government for selection of PPP partners;
- ii. prepare market assessment for PPP of proposed facilities;
- iii. prepare a list of options for PPP arrangements and advise the government on most suitable options;
- iv. assist in preliminary identification of potential PPP partners;
- v. prepare request for proposals for potential PPP partners;
- vi. assist in the evaluation of proposals from PPP bidders and advise on selection of PPP partner;
- vii. assist in contract negotiations between the government and the selected PPP partners; and
- viii. assist in the monitoring of implementation of the PPP contracts;

**I. Policy Development Specialists (8 pm international, 41pm national)**

175. An International and a National Policy Development Specialists will be engaged to assist in the implementation of the policy component of the Program. Both specialists should have at least 15 years working experience in agricultural sector policies, governance, strategies and planning for developing countries and in particular extensive experience in Cambodia and ADB member countries of Southeast Asia. Country level experience of Cambodia's agriculture and natural resources sector in high-level policy formulation and execution is an essential requirement. Specific experience with formulation and/or implementation of policy-based lending (formerly program lending) by international financial institution will be considered highly desirable.

176. Under direct guidance of the PIC Team Leader and the Program Director of the PMO, the Specialist, with assistance of the National Policy Specialist will be responsible for facilitating and monitoring the program component of the Rice-SDP and ensuring compliance of all tranche conditions by the government. The Specialists will undertake the following tasks:

- i. Monitor progress of implementation of the program component of the Rice-SDP on the basis of agreed indicators;
- ii. Assist policy theme working groups in respective responsible agencies with compliance of policy conditionality;
- iii. Assist respective responsible agencies with documentation of policy compliance;

- iv. Facilitate coordination of activities of different agencies responsible for interrelated conditionality, in particular activities of agencies that are jointly responsible for specific compliance;
- v. Act as non-member Secretary of the CEFP reporting to the Chairperson of the Committee;
- vi. Prepare in consultation with Chairperson, CEFP agenda for bi-annual meeting of the CEFP;
- vii. Prepare background notes and papers for quarterly meeting of the CEFP;
- viii. Assist responsible agencies with submission of reports on progress of policy compliance to quarterly meeting of the CEFP;
- ix. Assist Chairperson, CEFP with conduct of the quarterly and other meetings of the Committee;
- x. Assist Chairperson, CEFP with resolution of conflict or removal/overcoming of specific constraints to implementation of the program component of the Rice-SDP;
- xi. Prepare minutes of quarterly meeting of the CEFP;
- xii. Prepare Quarterly Report on the progress of implementation of the program component of the Rice-SDP and submit it to the Program Director and ADB;
- xiii. Prepare a Mid-term Report on the progress of implementation of the program component of the Rice-SDP and submit it to Program Director and ADB by the end of July 2014;
- xiv. Prepare an Interim Report on the progress of implementation of the program component of the Rice-SDP and submit it to Program Director and ADB by March 2015;
- xv. Prepare a Final Report on the progress of implementation of the program component of the Rice-SDP at least one month prior to completion of the second tranche period in March 2016 and submit it to Program Director and ADB;
- xvi. Compile and submit appropriate documentation for policy compliance to Program Director and ADB by completion of the second tranche period in March 2016 and submit it to PD and ADB; and
- xvii. Carry out as directed by any other task ADB Project Officer in-charge, Program Director and Chairperson, CEFP, any task in relation to policy compliance and/or conduct of functions the CEFP.

**m. Marketing Specialist (8 pm national)**

177. Farmer cooperatives are, for the most part, fledgling organizations with few skills among the membership. The Program is providing cooperatives with an opportunity to engage in profitable business viz, seed production and other rice related pursuits. While it is claimed that just 20% of the annual rice crop is planted with purchased seed and many farmers express the wish to plant with new seed every year, the commercial reality is that any commodity will benefit from an active marketing program. Farmers need to know where and when seed will be available, know its attributes and be able to recognize a brand or source with appeal. They need to be confident that the investment in seed will pay off. The Program believes that by working with seed cooperatives, a consultant in marketing will introduce them to the world of commerce and improve the likelihood of business success. Furthermore, farmer attitude to purchasing the more expensive higher quality seed leads to their re-use of seed from their previous crop. There is a real reluctance by farmers to spend more significant resources on seed when the free alternative exists. Those farmers and farmer groups wishing to engage in commercial seed production, usually from certified seed,

need to be sure they can market their produce if they engage in tighter and more costly procedures to assure seed quality. The responsibilities of the marketing specialist is to develop contract seed supply agreements between seed distributors and producers and to establish a trading relationship that will allow the seed industry to grow. The duties of the Marketing Specialist are as follows:

- i. To provide training under the headings of “Marketing Principles” and “Marketing for Cooperatives” for staff of the Office of Agricultural Extension (OAE) and PDA staff;
- ii. As part of the training exercise, marketing plans will be produced for each seed producing cooperative assisted under the Program;
- iii. On successive missions, conduct interactive meetings with OAE and representatives of the rice seeds cooperatives to elicit ideas on positive and negative outcomes of the marketing experience from the previous year;
- iv. Marketing plans will be altered and fine-tuned as a result of the marketing experience and the re-planning exercises of the interactive meetings;
- v. After three years there should be a quantum of knowledge in the OAEs and among the cooperatives for marketing to become a normal component of an annual business plan.

**n. Community Mobilization Specialist (15 pm national)**

178. The Program will work with rural cooperatives in order to improve the delivery of public services and agricultural input supplies. Cooperatives have been in operation for some time originally as the Royal Organization of Cooperatives formed in 1955. More recently, they have acquired a new lease of life and new ones being formed under a Royal Decree soon to be elevated to a law on cooperatives. A new department will be formed in MAFF to be responsible for their operations. Cambodian cooperatives subscribe to the principles and practices of the International Cooperatives Alliance. Cooperatives have an inauspicious record, but the chances for success seem better than before with successes in rice seed production, credit by revolving funds, bulk purchases of inputs, minor processing, production of animal feeds and marketing of rice. It is proposed that cooperatives be engaged to produce certified seed and graded seed or commercial seed from certified seed for others producing for the export market. The Program proposes to engage national specialists to assist cooperatives to operate as SMEs. Particular duties of the national consultants will be as follows:

- i. To put cooperative service contracts in place with NGO. A feature of more functional farmer organizations is that they have a relationship with a supporting NGO. The relationship between the cooperative and the NGO would be a business relationship and would last for the life of the CRRCP;
- ii. A characteristic of the cooperative will be its democratic modus operandi and development of good meeting procedure will be a high priority of the Program and the cooperating NGOs;
- iii. The process of mobilization will be stepwise and will follow an orderly path of acquisition of skills and adoption of practices consistent with well-run SME;
- iv. The extension and farmer organization activities provide for training-of-training exercises for offices of the PDA's OAE. These staff will be responsible for training exercises with cooperatives in:
  - Leadership and management
  - Bookkeeping
  - Business planning
  - Marketing

- Credit management
  - Principles and concepts of cooperatives
- v. The consultant will assist with the planning and conduct of these training events for the OAE training of trainers and monitor the performance of the government extension staff in the field; and
- vi. NGOs might assist with monitoring of training and provide feedback on performance of OAE trainers. The consultants will design appropriate responses to the concrete experiences in the field and establish an ethos of continuous learning.

**o. Resettlement Specialist (18 pm national)**

179. The National Resettlement Specialist will work with the PMO based resettlement officer and provincially based equivalents in PIOs to ensure that land acquisition and resettlement compensation is completed for all subprojects prior to the commencement of works associated with subproject implementation. The Specialist shall be guided by the government's procedures on resettlement as well as ADB's Safeguards Policy Statement (2009) and the Program Resettlement Framework to guide resettlement plans for subprojects. S/he will work closely between program initiatives and the National Inter-ministerial Resettlement Committee. The specialist shall have tertiary qualifications from a local institution in social science or a related field. S/he will have at least 5 years' experience in resettlement in Cambodia on internationally financed projects and be familiar with rural development in Cambodia. The specialist will be responsible to the PIC Team Leader but will work closely with appointees to the implementation structures nationally and in the provinces established to implement the Program. Duties will include the following:

- i. Prepare training guidelines for preparation of a resettlement plan, in accordance with ADB's SPS. Including guidelines for voluntary and involuntary land acquisition for subprojects in particular for irrigation rehabilitation in subproject feasibility studies and capacity building of line agency staff;
- ii. Assist in delivery of feasibility study and resettlement training at central and provincial levels;
- iii. Review subproject feasibility study procedures and approval process to ensure that resettlement safeguards are being applied to ADB standards. Ensure integration of gender and EMP action in resettlement plans;
- iv. Ensure that suitable and acceptable consultations have occurred and that the program resettlement plans and ethnic minority specific action or development plans, if any, have been disclosed to affected people;
- v. Provide on-job training in participatory social and resettlement impact evaluation;
- vi. Contributing to the PPMS for monitoring and reporting on resettlement; and
- vii. The specialist will provide assistance at provincial and district line management levels in preparing resettlement plans where needed and monitor the approval of those resettlement plans as required.

**p. Provincial Implementation Support Specialists (102 pm national)**

180. The Provincial Implementation Support Specialists will have tertiary level qualifications in either agriculture, rural infrastructure or rural sociology. S/he will have had 10 years' experience in development work in Cambodia preferably on internationally financed development projects of which at least three years has been working in a management capacity. S/he will also have at least two years of work experience where a substantial degree of responsibilities involved implementation coordination. They will have demonstrated responsibility in managing development programs, decision making, and the

ability to work independently in a leadership role. They should be familiar with government planning and how to interface development work with local government institutions. They should have good communication skills (written and oral) and be able to lead and motivate local staff. The specialists will be familiar with Khmer language and is likely to come from either Cambodia or other Southeast Asian countries.

181. In view of the relatively inexperienced provincial implementation appointed staff, the Program will require the support of specialists to assist in implementation. This recognizes that capacities are relatively weak and the intended functions of the PIOs will need to be supported with TA. The difficulties associated with the implementation of a sector modality program involve the development and adoption of procedures for screening, prioritizing and then designing followed by the implementation of subprojects. Provincial staff have limited experience in these areas give the limited access they have had to development financing but also to the challenges of interagency coordination required for the successful implementation of subprojects. External TA is proposed to support local management in the three provinces. These specialists will also be responsible for monitoring implementation progress and reporting of financial and implementation progress. Detailed terms of reference include:

- i. Assist the PIO Coordinator in managing day to day activities in the participating provinces;
- ii. Assist in preparing provincial annual work plans and prepare annual work plans for participating provinces;
- iii. Assist PIO Coordinator in recruiting prequalified institutions, commercial organizations, NGOs or private individuals to provided services for developing proposed subprojects into feasibility studies for consideration for funding;
- iv. Assist the PIO Coordinator in all procedures relating to procurement of equipment and vehicles in accordance with the methods to be used for the purchase of supplies for the project, ensuring that both ADB and government's requirements are followed;
- v. Prepare financial reports on a quarterly basis for submission to PMO, MAFF, MOWRAM, MLMUPC and ADB. Assist in the supervision of the release of funds from the Special Account in Ministry of Economy and Finance (MEF) to the program advance accounts in the provinces using standard procedures for replenishment of imprest accounts;
- vi. Assist the PIO Coordinator in implementing Benefit Monitoring and Evaluation (BME) procedures developed by the monitoring and evaluation officers;
- vii. Assist the PIO Coordinator in monitoring implementation progress of the Program and prepare quarterly progress reports for submission PMO, MAFF, MOWRAM, MLMUPC and ADB and for consideration by National Program Steering Committee and Provincial Steering Committees;
- viii. Provide advice to the Provincial Steering Committee on matters of implementation as required and also on planned activities designed to achieve the overall aim of the Program; and
- ix. Maintain regular visits to the subprojects to monitor Program activities and ensure their efficient implementation.

## VII. SAFEGUARDS

### A. Resettlement

182. The Rice-SDP is assessed to belong to category B for resettlement. Limited involuntary resettlement is envisaged under the Rice-SDP because of the screening of subprojects completed during preparation and only minor resettlement impacts are anticipated and this can be mitigated accordingly.<sup>47</sup> Rehabilitation of irrigation systems will not cause significant resettlement impacts because works will be along existing rights of way and will mainly require, if any, the acquisition of minor amounts of land from persons living in existing canal rights of way and minor compensation for trees, crops or possibly small part of structures. There may be land donations from the community for canal rehabilitation depending on subproject design requirements. Apart from these cases, compensation for the aforementioned resettlement impacts will be based on the principle of resettlement cost and compliance with the approved resettlement framework and subproject resettlement plans. The development of paddy drying and storage facilities will be located based on the availability of land for purchase on the open market, and transactions for this will proceed according to the “willing buyer and willing seller” principle. All related transactions and consultation will be recorded accordingly. A resettlement framework and resettlement plans for two representative subprojects were prepared by the EA, endorsed by the Interministerial Resettlement Committee (IRC), and approved by ADB.<sup>48</sup> Updated RPs will be prepared, as necessary, after the detailed design of subprojects is finalized. IRC will submit the updated RPs for ADB’s approval before commencement of civil works. All costs related to resettlement and land purchase will be financed by the government. Interventions directed at other areas of the value chain involve mainly capacity building and raise no resettlement issues.

183. Of all five Rice-SDP’s outputs, only Output 3 may involve resettlement issues related to the construction or rehabilitation of irrigation and rice processing facilities. Generally, irrigation scheme subprojects may include activities such as replacing/construction off-takes and gates, de-silting and/or widening irrigation canals and possible extension of irrigation networks, that may result in the permanent loss of small areas of land; minor damage to structures, crops and trees, and temporary loss or disruption of the use of land or other assets caused by construction works and the movement of construction plant and materials to and from work sites. No or little impacts on businesses are expected and no or a very few households to be resettled depending on final layouts of subprojects to be prepared during detailed design stage. Grain handling facility to be built under a number of subprojects would require areas located in or close to transport infrastructure and services (power and communications). Should subproject affected households require resettlement, support for relocation, compensation for the loss of assets and assistance with income restoration will be provided, according to land acquisition, resettlement and compensation related requirements of both ADB and the government.

184. To avoid or minimize the potential land acquisition resettlement impacts from the project activities, the implementing agencies will:

- (i) consider design alternatives, favoring those which meet technical and financial requirements as well as other criteria;

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<sup>47</sup> Rice-SDP will not finance any subproject with Category A resettlement as defined in ADB’s Safeguards Policy Statement, 2009. Subproject eligible for financing must have no outstanding social safeguards issues resulting from the existing facilities.

<sup>48</sup> The Resettlement Framework is accessible from the list of linked documents in Appendix 2. Resettlement plans are parts of the subproject feasibility studies in Supplementary Document 2 and 3.

- (ii) where resettlement impacts are unavoidable, provide the financial and technical assistance to households as prescribed in the Resettlement Framework (RF); and
- (iii) ensure adequate supervision of construction activities to ensure adherence to approved designs, and the EMP for each subproject.

185. The RF for the Rice-SDP's investment project has been prepared to meet the requirements for implementation of a sector development program. The RF will be applied to all subprojects where there will be land acquisition and/or resettlement. The RF presents the specific policies and guidelines to guide land acquisition and resettlement.

186. Feasibility studies will be prepared for all subprojects in the participating provinces and their districts, and will include a resettlement plan (RP) for those subprojects with potential resettlement implications. In addition socioeconomic baseline surveys shall be conducted for each subproject and their findings and results about the subproject area documented in separate stand-alone reports. An independent socioeconomic survey of all potentially affected household will be also be prepared and incorporated in RPs. These above activities will be carried out by MOWRAM's resettlement unit.

## **B. Environment**

187. An environmental assessment was conducted for policy and project interventions during preparation. Policy interventions focus on improving agricultural practices (chemicals and fertilizer application), land-use zoning (to avoid environmentally sensitive areas), watershed protection, and water management in irrigation systems, all of which are likely to have major positive impacts and significantly contribute to improved environment.

188. An initial environmental examination (IEE) was conducted for three representative subprojects to identify potential impacts, appropriate mitigation measures and monitoring mechanisms. These confirmed that proposed investments are not likely to cause significant adverse environmental impacts. Prescreening of subsequent subprojects against environmental criteria also minimized the risk for negative environmental impact. Irrigation subprojects will include the rehabilitation of existing irrigation systems and may comprise the rehabilitation of head-works, lining of primary, secondary and tertiary irrigation canals, and construction of water management structures. Land leveling, using precision instrumentation will take place in association with some subprojects. The process involves minor redistribution of topsoil to create a level surface over an entire field, allowing for even distribution of irrigation water and hence greater water efficiency. The provision of grain drying and storage facilities will include the construction of buildings, access ways, service connections and perimeter fences, the provision of purpose-built processing and handling equipment, the provision of moisture control, weighing and packaging equipment, and training in operation of the facilities. Subprojects will follow environmental assessment procedures stipulated in the environmental assessment and review framework. Overall the program is classified as B for environment as defined in the ADB Safeguard Policy Statement (June 2009).

## **C. Indigenous Peoples**

189. Based on commune data-base information, supported by socioeconomic survey data in the target provinces, no indigenous peoples are living in potential subproject locations, except a very few ethnic minority households (lowland Lao and Cham - Vietnamese Muslim). These are, as with their Cambodian neighbors, engaged in rice production and fishing and follow the same farming systems. They are fully integrated into Khmer society and enjoy full citizenship privileges. These have been confirmed during the ADB fact finding mission. The Program is therefore assessed as Category C for Indigenous Peoples.

## VIII. GENDER AND SOCIAL DIMENSIONS

### A. Gender Assessment

190. The government has embraced the need for gender development, and its laws and socioeconomic policies provide appropriate platforms for the implementation of active measures needed to achieve gender equity and empowerment. Articles 31, 35 of the Constitution ensure equal rights for women regardless of race or religion and Article 45 prohibits discrimination based upon gender. The government ratified the Convention on the Elimination of All Forms of Discrimination Against Women in 1992 without reservation and ministries have been instructed to establish gender Working Groups within their institutions. The Cambodian National Council for Women in conjunction with the Inter Ministerial Gender Working Groups formulated a 5-year Strategic Plan 2010 to 2014. Members include the Queen and secretaries of state from each ministry. A number of laws have been adopted which protect women's interests, such as the law on Prevention of Domestic Violence and Protection of Victims (2005), the law on Suppression of Trafficking in Humans and Sexual Exploitation (2008), and other measures that ensure gender equality has been progressively and effectively integrated into the National Strategic Development Plan (NSDP Update 2009-2013).

191. Gender has been successfully mainstreamed into ongoing government reform process such as the Public Administrative Reform (PAR), and the NCCD which has enabled the formation of the Commune Committee for Women and Children to operate in commune councils to advocate for and monitor issues of particular concerns to equality and access to development initiatives.

### B. Gender Issues

192. Cambodia has experienced rapid socioeconomic growth, and unfortunately much of this contains an imbalance with more emphasis (and impact) on the economic side and less social development. This in itself reflects development challenges and constraints which impact upon gender and especially the well-being of women and other vulnerable groups. Climate change and the emergence of new health issues present new developmental challenges particularly for women.

193. According to data from the 2010 Census, average monthly incomes from agriculture in rural areas was about KR237,000 per month which showed an increase from KR189,000 in 2009, and rural disposable income per month was around KR676,000 compared with some KR1,468,000 in urban areas apart from Phnom Penh. Women still lag behind men in relation to literacy. According to 2010 data nationally some 69% of women are literate compared to 85% of men. By comparison, the literacy rate has improved for both men and women from a 2004 national rate of 60% for women and 80% for men.

194. Nationally, there are some 2,917,000 households of which 81% are in rural locations. According to the latest census data, whereas the national average of households that are headed by women was 22%, figures for urban areas were significantly higher than rural areas, where it averaged 21.4%. This showed little change since 2004. The prevalence of female headed households is higher in the areas being selected for program implementation. These households are particularly vulnerable as they will lack labor, farm small plots and lack basic production equipment and tools as well as capital to purchase improved inputs.

### C. Design Features to Ensure Tangible Benefits to Women

195. The Rice-SDP is categorized as “effective gender mainstreaming”. The Rice-SDP’s Program addresses women farmers’ access to resources, essential extension services and decision-making. The policy conditions ensure that: (i) gender issues are mainstreamed into the Agricultural Land Policy and the Law on Management and Use of Agricultural Land; (ii) the Sub-Decree providing guidelines on the implementation of the Law on Agricultural Cooperatives, which will enumerate, inter alia, measures for addressing gender issues in cooperatives’ policies, programs and structures; (iv) the Prakas on Contract Farming in Rice Production will incorporate mechanisms to protect rights of female smallholder farmers in contract farming transactions; and (v) MEF supported innovative collateral options will include options for increasing women farmers’ access to finance. The Rice-SDP Project’s gender action plan (GAP) ensures that (i) women will comprise 50% of the community membership of construction sub-committees and provide inputs on location, alignment and access to irrigation infrastructure; (ii) 30% of management positions in farmer cooperatives and FWUC’s will be held by women; (iii) 50% of farmers in pilot ‘on-farm trials and demonstrations’ and pilot insurance schemes will be women; (iv) women will comprise 50% of participants in training on extension and water management; (v) innovative strategies are implemented to increase women farmers’ access to agricultural finance; and (vi) the design and monitoring framework incorporates gender indicators and sex disaggregated reporting.

196. The design features are gender responsive and take into account local aspirations as identified during participatory enquires. Rather than setting gender equity targets, Rice-SDP will focus on gender empowerment as women have expressed the desire to be trained, to be kept up to date with agriculture developments, to participate in planning and decision making and to be consulted on infrastructure design in regards to community needs. Women have expressed a lack of willingness to serve on community based management bodies as these duties usually require too much time, and often lead to conflict or unpleasantness due to the need to make repeated follow-up visits to, usually, male heads of household, to collect overdue user fees. Gender based targets include:

- (i) Participation in training and meetings that include amongst other subjects agriculture and credit - 50% of participants will be women. Separate on farm trials and demonstrations will be held for women and men’s farmer groups.
- (ii) Community based management committee positions - 30% of committee members will be women.
- (iii) FWUC Advisory Committees (Boards) will comprise 50% women in order to ensure women’s rights to equal access to water resources, decision making and rights to appeal management decisions are protected.
- (iv) Membership in farmer co-operatives and farmer water user committees - Rice-SDP will accept membership registrations from husband and wife, and membership targets are 50% male and 50% female.
- (v) Rice drying and warehousing facilities - target 25% employment of local women.
- (vi) On-farm seed production facilities - target 50% employment of local women as women have greater attention to detail in picking out non-conforming varietal phenotypes.
- (vii) Infrastructure design - women are equally represented and consulted as their male counterparts and construction planning sub-committees would be made up of 50% of women.
- (viii) Irrigation rehabilitation and construction works will employ 40% women in unskilled labor positions.
- (ix) Poultry-raising is one activity favored by women and carries increasing risk for transmission of the H1N1 - Avian Influenza virus and this risk is seen to increase with continued climatic changes. Training on protection from health

risks, such as avian flu and hand foot and mouth disease, will be incorporated into poultry and animal husbandry training delivered to groups of women and older children (especially girls) who are often responsible for this activity.

- (x) Women’s representation and gender expertise will be included in all working groups established by the government in relation to policy development under the Rice-SDP.
- (xi) Extension service field teams will comprise 25% female extension workers.

197. The Gender Action Plan is presented below:

### Gender Action Plan

Rice-SDP’s Outputs	Actions	Responsible Agencies
<p><b>A Conducive Legal and Regulatory Environment Established to Facilitate Climate Resilient Rice Commercialization</b></p>	<ul style="list-style-type: none"> <li>• Ensure gender analyses and quantitative and qualitative data inform the development of all policies.</li> <li>• Ensure inclusion of gender expertise in each technical working group for policy development to address the needs of women farmers.</li> <li>• Ministry of Land Management, Urban Planning and Construction (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 Law on Management and Use of Agricultural Land.</li> <li>• The Working Group on Agricultural Land-use Zoning comprising representatives from Ministry of Agriculture, Forestry and Fisheries (MAFF) and MLMUPC will include gender expertise and female representation.</li> <li>• The framework providing procedures for Establishing Agricultural Land-use Zones will incorporate measures for involving women in planning and decision making.</li> <li>• The Sub-decree providing guidelines on the implementation of the Law on Agricultural Cooperatives will ensure that gender issues are integrated into cooperatives’ policies, programs, requisite structures and processes, including targets for women’s participation in management and leadership; in training and capacity development activities; advocacy related to needs of women farmers; and ensure that sex-disaggregated data is collected and analyzed.</li> <li>• The Prakas on Contract Farming in Rice Production will incorporate mechanisms to protect rights and benefits of female smallholders in contract farming transactions, including consideration for female smallholder farmers’ produce, the provision of inputs at industry standards and rates and tailored dispute settlement mechanisms.</li> <li>• Female farmers will be consulted to seek input on various innovative collateral options for loans.</li> <li>• MEF recommendations to the government on innovative collateral options for loans will include options for increasing women farmers’ access to finance and these will be implemented.</li> </ul>	<p>MEF, MAFF, MLMUPC, CLP, Ministry of Women’s Affairs (MOWA), Women beneficiaries</p>

Rice-SDP's Outputs	Actions	Responsible Agencies
	<ul style="list-style-type: none"> <li>All above laws and Prakas will be adequately disseminated amongst male and female farmers.</li> </ul>	
<b>Agricultural Land Use Zoning Improved</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	MLMUPC and its provincial departments ,MAFF and its provincial departments , and PIOs
<b>Climate Resilient Rice Value Chain Infrastructure Developed</b>	<ul style="list-style-type: none"> <li>Women will comprise 50% of the community membership of construction sub-committees.</li> <li>Separate women farmers' meetings will be held to discuss women's needs related to location, alignment and access to irrigation infrastructure.</li> <li>Final designs on infrastructure investments will be signed off by construction sub-committees 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.</li> <li>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.</li> <li>Employment opportunities targeted at men and women will be communicated to communities.</li> <li>Target of at least 30% employment of women as unskilled laborers in rice drying and warehousing facilities.</li> <li>Target 50% women's employment as administrative staff in rice drying and storage facilities.</li> <li>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.</li> <li>Occupational safety measures and training provided to all workers.</li> <li>Farmer's Water User Committees (FWUCs) will accept membership registrations from husband and wife - 50% target for each.</li> <li>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.</li> <li>FWUC advisory committee will be established to monitor FWUC activities will comprise 50% women.</li> <li>Affected members dissatisfied with FWUC resolutions of disputes, have the right to appeal to the FWUC advisory committee.</li> <li>Water provision where feasible, will include both irrigation and non-irrigation water needs of households.</li> </ul>	Ministry of Water Resources and Meteorology (MOWRAM) and its provincial departments, MAFF and its provincial department, private sector mills, seed facility operators via policy influence, and PIOs
<b>Rice Value Chain Support Services Enhanced to Improve Quality of</b>	<ul style="list-style-type: none"> <li>Target at least 30% women in management positions in farmer cooperatives.</li> <li>Women will be provided training on leadership and management.</li> </ul>	MAFF and its provincial departments, and PIOs

Rice-SDP's Outputs	Actions	Responsible Agencies
<b>Cambodian Rice</b>	<ul style="list-style-type: none"> <li>• Farmers' cooperatives will accept membership registrations from husband and wife. Membership targets are 50% for male and female.</li> <li>• Women will comprise 50% of participants in all project supported training in extension and water management.</li> <li>• 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 safety procedures and new income generating activities.</li> <li>• Some 50% of farmers in pilot on-farm trials and demonstrations will be women.</li> <li>• Extension training schedules will ensure that location and timing of delivery are convenient for women.</li> <li>• Training materials will be designed to meet the needs of female and male farmers, including illiterate farmers.</li> <li>• Some 25% of agricultural extension workers trained shall be women (proportionate to actual numbers of female extension workers).</li> <li>• 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.</li> <li>• Some 50% of farmers under the pilot insurance scheme will be women and 10% of these to be female headed households.</li> <li>• Address lack of access to credit by women and poor farmers through (i) enhancing knowledge on requirements of microfinance institutions (MFIs) and banks; and (ii) innovative financial products to ease "traditional" collateral requirements.</li> </ul>	
<b>Weather-indexed Crop Insurance (WICI) Piloted</b>	<ul style="list-style-type: none"> <li>• Some 50% of farmers under the pilot insurance scheme will be women and 10% of these to be female headed households.</li> </ul>	MEF, PMO, PIOs
<b>Efficient Program Management and Implementation</b>	<ul style="list-style-type: none"> <li>• One international and one national gender and community development specialist recruited to support the Program Management Office (PMO) and Provincial Implementation Offices (PIOs).</li> <li>• Ensure sex-disaggregated performance monitoring system is established and operational.</li> <li>• All PMO and PIO staff shall be provided gender training and roles and responsibility training on implementing the Gender Action Plan (GAP).</li> <li>• About 40% of administrative positions and 10% of technical positions shall be filled by women by QII-2013 in PMO and PIOs.</li> <li>• Ensure participatory evaluations are conducted with male and female farmer groups at mid-term and end of the project reviews.</li> </ul>	MEF, PMO, PIOs

**Implementation Arrangements:**

198. The PMO chaired by MEF with representation of the various implementing agencies will be responsible for the gender related policies and implementation of the GAP in their respective sectors. An international gender specialist and a national gender specialist will be recruited for 8 and 24 months respectively to guide and support the PMO and the respective implementing agencies and provincial governors in implementing the gender actions. The budget for the GAP will be integrated in the overall budget for each of the outputs. The Program Steering Committee will include representation of the Ministry of Women's Affairs to provide guidance and ensure alignment with national gender policies/strategies and initiatives. Gender indicators will be integrated into the project monitoring and evaluation measures that will require sex disaggregated reporting. The Program will submit progress updates on the implementation of the GAP regularly as part of review and progress reports submitted to government and ADB.

## D. Summary Poverty Reduction and Social Strategy

Country:	<b>Cambodia</b>	Project Title:	<b>Climate Resilient Rice Commercialization Sector Development Program (Rice-SDP)</b>
Lending/Financing Modality:	<b>Sector Development Program</b>	Department/Division:	<b>Southeast Asia Department/Environment, Natural Resources and Agriculture Division</b>

<b>I. POVERTY AND SOCIAL ANALYSIS AND STRATEGY</b> Targeting classification: General Intervention
<b>A. Links to the National Poverty Reduction and Inclusive Growth Strategy and Country Partnership Strategy</b> <p>The Government of Cambodia (government) formulated a Rectangular Strategy (RS-II) to serve as roadmap for socioeconomic development. National Strategic Development Plan 2009-13 (NSDP-II) emphasized the need to develop the Strategy on Agriculture and Water (SAW) with an over-arching goal 'To contribute to poverty reduction, food security and economic growth through enhancing agricultural productivity and diversification and improving water resources development and management.' The government also developed a 'Rice Policy for the Promotion of Paddy Production and Rice Export,' which involves, among others: (i) adopting market principles by encouraging competition; (ii) supporting participation of farmers and their organizations; and, (iii) promoting domestic processing of paddy. ADB's Country Partnership Strategy (CPS) for Cambodia includes Agriculture and Natural Resources (agriculture commercialization and irrigation support) as a priority sector and seeks to (i) stimulate growth of competitive farms and rural enterprises, and create job opportunities; (iii) build sustainable rural infrastructure, including irrigation, to promote productivity increases, market connectivity, competitiveness; and (iii) improve food security and climate resilience in agricultural production. Rice-SDP is consistent with Cambodia's NSDP-II and will address food security and rice commercialization by: (i) strengthening the rice value chain; (ii) improving legal and regulatory framework in agricultural land management; (iii) improving access to credit by paddy producers and rice millers/exporters; and (iv) enhancing paddy production, productivity through improved irrigation water use efficiency, establishment of post-harvesting facilities, paddy crop insurance pilots. Rice-SDP will (i) address major strategic thrusts of the 2011-13 CPS, sector strategies and roadmap; and (ii) complement on-going sector initiatives by emphasizing commercialization of all rice sector aspects.</p>
<b>B. Results from the Poverty and Social Analysis during PPTA or Due Diligence</b> <p><b>1. Key poverty and social issues.</b> Poverty incidence ranges from roughly 20-40% in the three subproject provinces. Poor households farm average of 0.5 ha of paddy, medium households up to 2 ha, well-off families 3 ha or more. Given mechanization trend and increasing productivity for those with land areas greater than 1.5 ha, Rice-SDP does not specifically target the poorest communities or the poorest households within a community. Prescribed poverty incidence within a community was not used as a subproject selection criterion. However, Rice-SDP promotes rice value chain development and addresses inclusive economic growth. Subproject beneficiary communities include households below the poverty line. Poorer and poorest households will also benefit from rehabilitated and improved irrigation facilities; improved reliable certified seed supplies and, through participating in training, improved linkages with credit suppliers. Training in improved agricultural production techniques will be provided to all householders producing rice in subproject areas. Rice-SDP will bring about increased local employment opportunities at grain drying and storage facilities, seed production facilities, rice mills and with traders and agricultural service contractors.</p> <p><b>2. Beneficiaries.</b> Target beneficiaries are agricultural rice-producing communities capable of producing marketable rice surplus. Poorer families have smaller irrigated areas for growing dry season crops. Most households have access credit for seasonal production and produce is usually bought directly by visiting traders. Mechanization is adopted although the poor have less access due to cost of machinery hire and smaller plot size that makes machine access difficult. Many farmers report lodging of rice crop that cannot be harvested by machine and indicate need for improved varieties. Some sampled villages have higher than average single women-headed households. These lack labor to farm larger areas and lack cash for inputs and machinery hire. Many members of households undertake seasonal migration to gain off-farm income. Livestock (usually poultry) is an important supplementary livelihood activity.</p> <p><b>3. Impact channels.</b> Policy reforms involving certification and standards of agricultural inputs as well as the finished product will benefit both well-off and poorer farming households. Policy reforms and subproject investments will reduce poverty amongst beneficiaries directly through increased food security, household incomes, and creation of rural jobs. Subproject investments will improve quality of paddy, thus increasing productivity and household incomes.</p> <p><b>4. Other social and poverty issues.</b> Not Applicable.</p> <p><b>5. Design features.</b> Rice-SDP's design focuses on (i) more conducive legal, regulatory environment for rice commercialization; (ii) improved land-use zoning; (iii) climate resilient infrastructure developed; (iv) improved quality paddy from value chain services; and (v) weather indexed crop insurance pilot tested. All rice growers will benefit from improved commercial and regulatory environment facilitating production, quality improvement, marketing and export of rice. All farmers in subproject areas will benefit from better targeting, planning, delivery of agricultural services from a combination of improved private and public services; rehabilitated irrigation including operations and maintenance training; improved harvesting, drying, storage and milling facilities that will improve quality of rice and result in higher farm-gate prices; stronger mill-owner financial capacities; improved mill facilities; participation in crop</p>

insurance schemes, together with improved linkages with credit suppliers. Farmer cooperatives and farmer water user communities (FWUC) will be strengthened and provide improved services to members. Rice-SDP will also encourage savings groups at village level.

### C. Poverty Impact Analysis for Policy-Based Lending

Rice-SDP design calls for policy reform initiatives (certification and standards of agricultural inputs and the finished product) to lift Cambodia's rice production to satisfy domestic demand, allow export of 1.2 million tons of milled rice by 2017, establish Cambodian rice as reliable quality product in the international marketplace. Policy reforms will benefit well-off and poorer farming households who will access better quality inputs and enjoy higher safety standards, improved rice varieties, improved milling facilities and rice storage. They will benefit from strengthened farmer cooperatives and irrigation water user communities; improved yields of better quality grain and thus more production sold for higher unit price. Higher disposable incomes contribute to pro-poor growth and MDG achievement, since households will have more cash to spend on education, health, and reinvesting in agriculture. Interventions are aimed at critical rice value chain points and will result in larger quantities of improved quality rice for sale and consumption.

## II. PARTICIPATION AND EMPOWERING THE POOR

**1. Participatory approaches and empowerment of the poor and vulnerable.** A comprehensive participatory socioeconomic and gender role survey was conducted in 27 villages (243 households). Community consultations will continue throughout detailed design phase. During construction phase, poor households will actively participate and benefit through providing wage labor. Bidding documents will request contractors to pursue such participation whenever possible. Community will participate in operations and maintenance of completed infrastructure through provision of labor.

**2. Civil Society's roles.** Avenues for civil society participation include (i) participation in consultations throughout implementation cycle; (ii) working with farmer's cooperatives; and (iii) potential engagement as external monitoring agencies.

**3. Ensuring adequate participation of civil society.** Consultation covers local community leaders, civil society and local peoples' organizations. Participation of civil society will be ensured by a number of means including service contracts between the Rice-SDP implementing agencies with NGOs in monitoring and evaluation, and appropriate engagement as representatives of the beneficiaries.

### 4. Forms of civil society participation

Information gathering and sharing  Consultation  Collaboration  Partnership

**5. Will a project level participation plan be prepared to strengthen participation of civil society as interest holders for affected persons particularly the poor and vulnerable?**  Yes.  No. Rice-SDP has identified key interventions in rice value chain based on industry norms. All interviewees of abovementioned comprehensive survey were eager to support and participate in Rice-SDP.

## III. GENDER AND DEVELOPMENT

Gender mainstreaming category: Effective Gender Mainstreaming

**A. Key issues.** Key gender issues addressed include gender neutral policies; legal frameworks; lack of gender expertise and representation in policy development committees; lack of women farmer's access to decision-making in agricultural development planning; limited women farmer's access to extension services, information; limited access to credit, new markets and employment opportunities, and support for women entrepreneurs in rice value chain.

**B. Key actions.** Rice-SDP supports women farmers' access to resources, essential extension services and decision-making. Proposed policy reforms will ensure that: (i) gender issues are mainstreamed into Agricultural Land Policy and Law on Management and Use of Agricultural Land; (ii) Sub-decree providing guidelines on implementation of the Law on Agricultural Cooperatives will ensure gender issues are integrated into cooperatives' policies, structures and processes, including targets for women's participation in management, leadership and training; (iv) Prakas on Contract Farming in Rice Production will incorporate mechanisms to protect rights of female smallholder farmers in contract farming transactions; (v) innovative collateral options will include options for increasing women farmers' access to value chain finance. Gender action plan ensures, among others, that: (i) 30% of management positions in farmer cooperatives and farmer's water user committees are held by women; (iii) 50% of farmers in pilot 'on farm trials and demonstrations' and weather indexed insurance pilot will be women; (iv) women will comprise 50% of participants in all extension and water management training; and (v) project Monitoring and Evaluation (M&E) framework includes gender indicators and reports on sex disaggregated data.

Gender action plan  Other actions or measures  No action or measure

## IV. ADDRESSING SOCIAL SAFEGUARD ISSUES

### A. Involuntary Resettlement

Safeguard Category:  A  B  C  FI

**1. Key impacts.** Limited involuntary resettlement due to subproject screening process will exclude subprojects with significant resettlement impacts (Category A), and rehabilitation of irrigation systems only along existing right of way. Development of paddy drying and storage facilities will require purchase of land on open market under the principle of 'willing buyer and willing seller'. No or little impacts on businesses are expected.

**2. Strategy to address the impacts.** A Resettlement Framework and subproject resettlement plans were developed and endorsed by the Inter-ministerial Resettlement Committee.

**3. Plan or other Actions.**

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Resettlement plan                           | <input type="checkbox"/> Combined resettlement and indigenous peoples plan                         |
| <input checked="" type="checkbox"/> Resettlement framework                      | <input type="checkbox"/> Combined resettlement framework and indigenous peoples planning framework |
| <input type="checkbox"/> Environmental and social management system arrangement | <input type="checkbox"/> Social impact matrix  |
| <input type="checkbox"/> No action  |  |

**B. Indigenous Peoples** **Safeguard Category:**  A  B  C  FI

**1. Key impacts.** No impact: No Indigenous Peoples as defined under the ADB Safeguards Policy Statement. Is broad community support triggered?  Yes  No (Not Applicable)

**2. Strategy to address the impacts.** No Action Required.

**3. Plan or other actions.**

- |   |  |
|---|--|
| <input type="checkbox"/> Indigenous peoples plan                                | <input type="checkbox"/> Combined resettlement plan and indigenous peoples plan                    |
| <input type="checkbox"/> Indigenous peoples planning framework                  | <input type="checkbox"/> Combined resettlement framework and indigenous peoples planning framework |
| <input type="checkbox"/> Environmental and social management system arrangement | <input type="checkbox"/> Indigenous peoples plan elements integrated in project with a summary     |
| <input type="checkbox"/> Social impact matrix                                   |  |
| <input checked="" type="checkbox"/> No action                                   |  |

**V. ADDRESSING OTHER SOCIAL RISKS**

**A. Risks in the Labor Market**

**1. Relevance of the project for the country's or region's or sector's labor market.**  unemployment  underemployment  Retrenchment  core labor standards

**2. Labor market impact.** Employment opportunities will be created by grain drying, storage facilities, potential irrigation civil works, etc. Gender Action Plan (GAP) specifies that operators will provide equal employment opportunity for women. All contracts will forbid hiring of minors. Health safety standards will be adopted in the grain facilities.

**B. Affordability – No Action**

**C. Communicable Diseases and Other Social Risks**

1. Indicate respective risks, if any, and rate impact as high (H), medium (M), low (L), or not applicable (NA):  
 Communicable diseases  Human trafficking  Others (please specify) \_\_\_\_\_
2. Related risks of project on people in project area: Increased employment opportunities for women and contractors' presence could increase community exposure to HIV/Aids. There is also potential increased exposure to animal borne viruses due to projected increase in livestock raising. GAP contains specific measures for women's health and occupational safety particularly in rearing poultry. Health training will be incorporated into livestock husbandry training.

**VI. MONITORING AND EVALUATION**

**1. Targets and indicators:** Impact target includes increased average farming household income from \$400 in 2010 to \$700 in 2020.

**2. Required human resources:** Program Management Office (PMO) will maintain Project Performance Monitoring System (PPMS) with assistance from Program Implementation Consultants, who will also assist in preparing and updating Resettlement Plans, Environmental Management Plan, GAP and support monitoring. PMO will recruit external monitoring agencies to monitor implementation of safeguards. ADB will conduct regular reviews to (i) assess implementation performance, achievement of program outcomes and objectives, loan covenant compliance; (ii) identify issues and constraints; and (iii) work out time-bound action plans for their resolution.

**3. Information in PAM:** PMO will prepare and submit (i) quarterly progress reports; (ii) semi-annual Safeguards Monitoring Reports; (iii) annual report discussing progress achieved, implementation issues and solutions; and, (iv) completion report covering physical achievements, results of program activities, preliminary assessment of achieved benefits.

**4. Monitoring tools:** PPMS based on Design and Monitoring Framework to record technical performance; assess delivery of program facilities and achievement of objectives; measure social impacts.

Sources: Design and Monitoring Framework, Resettlement Framework, Program Administration Manual.

## IX. PERFORMANCE MONITORING, EVALUATION, REPORTING AND COMMUNICATION

### A. Program Design and Monitoring Framework

Design Summary	Performance Targets and Indicators with Baselines	Data Sources/ Reporting Mechanisms	Assumptions and Risks
<p><b>Impact</b> Increased Net Incomes of Stakeholders along the Rice Value Chain</p>	<p>Average farming household incomes increase from \$400 in 2010 to \$700 by 2020</p> <p>Revenue of rice exporters increases from \$100 million in 2012 to \$600 million in 2020</p> <p>Net profit of rice exporters increases from \$30 million in 2012 to \$180 million in 2020</p>	<p>National Institute of Statistics' Yearbook</p> <p>Ministry of Commerce annual trade statistics</p> <p>Ministry of Commerce annual trade statistics</p>	<p><b>Assumption</b> Medium-term macro-economic stability and climate change adaptation mainstreaming</p> <p><b>Risks</b> Lack of political commitment in Rice-SDP implementation</p> <p>Climate change impacts may undo the intended gains and reduce anticipated benefits</p>
<p><b>Outcome</b> Enhanced Production of Quality Rice in Cambodia while preserving the natural resource base</p>	<p>Paddy production increases from 8.0 million tons in 2012 to 9.5 million tons by 2018</p> <p>Milled rice exports increase from 200,000 tons in 2011 to 1.2 million tons in 2017</p> <p>Wet paddy exports to Viet Nam and Thailand reduced to 1.1 million tons by 2018 (2011 baseline: 2.2 million tons per annum)</p> <p>Three provinces using digital maps of rice eco-systems based on soil type, cropping pattern and vulnerability to risk for land-use zoning by 2018 (2012 baseline: zero)</p>	<p>MAFF annual crop production statistics</p> <p>Ministry of Commerce annual trade statistics</p> <p>Rice-SDP baseline survey in 2013 and end-line survey in 2018</p>	<p><b>Assumption</b> Government commitment to effectively implement the Rice Policy</p> <p><b>Risks</b> Institutional and implementation risks from lack of technical skills and resources</p> <p>Improper natural resources management may exacerbate the impacts of climate change</p>
<p><b>Outputs</b> Conducive Legal and Regulatory Environment Established to Facilitate Climate Resilient Rice Commercialization</p>	<p>2010 baseline for all six targets is legal drafting actions initiated and 2015 end-line targets are as follows:</p> <p>(i) Policy and regulatory framework for local seed production in place; (ii) Framework for establishing agricultural land use zones completed; (iii) Legislation on sustainable management and use of agricultural land operational; (iv) Regulatory systems for farmer's organizations and contract farming functional; (v) Milled rice standards and trade facilitation measures in place; (vi) Policy measures in place to increase finance outreach to farmers, millers, and rice exporters</p>	<p>SDP progress and monitoring reports produced quarterly by the EA and IAs.</p> <p>Tranche Compliance Reports prepared by the EA and endorsed by ADB</p>	<p><b>Assumption</b> Political parties and beneficiaries are cooperative in the process</p> <p><b>Risk</b> Policy coordination and enforcement are not strong enough</p>
<p>Agricultural Land-use Zoning Improved</p>	<p>90 rice growing communes in target provinces complete agro-ecosystem analyses and incorporate into commune land use plans (CLUPs) by 2017</p> <p>90 groups of farmers consulted (with at least 40% female representation) during preparation of CLUPs by 2015.</p>	<p>Rice-SDP progress and monitoring reports produced quarterly by the EA and IAs</p>	<p><b>Assumption</b> MLMUPC can accommodate AEAs as an input to CLUPs</p>
<p>Climate Resilient Rice Value Chain Infrastructure Developed</p>	<p>23,000 ha of command area served by climate resilient rehabilitated irrigation structures by 2017 (40% unskilled laborers employed in the rehabilitation are women; 50% of construction sub-committee members are women; 2 FWUCs established in each irrigation</p>	<p>Rice-SDP progress and monitoring reports produced quarterly by the EA and IAs</p>	<p><b>Assumptions</b> Climate resilient infrastructure is economically viable and politically acceptable</p>

Design Summary	Performance Targets and Indicators with Baselines	Data Sources/ Reporting Mechanisms	Assumptions and Risks
	<p>scheme, with women occupying 30% of the management positions)</p> <p>Four seed drying and storage facilities constructed by 2017 with a combined storage capacity of 8,000 tons (30% unskilled laborers and 50% administrative staff are women)</p> <p>Capacity for drying paddy in target provinces extended by 2,000 tons per day by 2018</p> <p>Capacity for paddy storage in target provinces extended by 40,000 tons by 2018</p>		<p>Operation of control structures by PDWRAM to deliver water to canals</p> <p>Suitable private entities are interested and capable of managing facilities</p> <p><b>Risk</b> Basin studies on water resources do not take full account of the impact from climate change</p>
<p>Rice Value Chain Support Services Enhanced to Improve Quality of Cambodian Rice</p>	<p>2,400 tons of fragrant rice seed produced per annum in target provinces by 2018</p> <p>80% of farmers (disaggregated by sex) in target provinces buying commercial seed every 2 years by 2018</p> <p>30% of farmers (disaggregated by sex) have leveled their paddy fields in target provinces by 2018</p> <p>50% of farmers in target provinces (disaggregated by sex) obtain technical advice through input suppliers by 2016</p> <p>10 rice millers in target provinces use independent financial management advisory services by 2016</p>	<p>Rice-SDP progress and monitoring reports produced quarterly by the EA and IAs</p> <p>Rice-SDP progress reports</p> <p>Quarterly Reports by the Insurance Firm</p>	<p><b>Assumptions</b> Growers accept the higher price needed to purchase quality seed</p> <p>Farmers have resources to part finance the land leveling</p> <p>Drying and storage facilities are operated at full capacity</p> <p><b>Risk</b> Banks are not interested in receiving capacity building or product development</p>
<p>Weather-indexed Crop Insurance (WICI) Piloted</p>	<p>100,000 ha of rice producing areas covered by WICI within the three participating provinces by 2017 (50% of the policy-holders is women, of which 10% is from female headed household)</p> <p>15 local input suppliers, 3 local financial institutions, and 3 local marketing agencies participating into the pilot tests in three provinces.</p>	<p>Government and ADB agree on the recommendations of the feasibility study</p> <p>Design of WICI and evaluation report</p>	<p><b>Assumption</b> Feasibility study recommends design and piloting</p> <p><b>Risks</b> Piloting WICI shows no feasibility in Cambodia</p>
<p>Efficient Program Management and Implementation</p>	<p>Implementation consultants mobilized within 3 months of effectiveness</p> <p>Rice-SDP performance monitoring system disaggregated by sex, designed and operational within 3 months of effectiveness</p> <p>Loan/grant contract awards and disbursement achieved as stated in quarterly projections</p> <p>Baseline surveys completed within 3 months of loans and grants effectiveness</p> <p>End-line impact evaluation undertaken 3 months before Rice-SDP completion date</p> <p>For PMO and PIOs, 40% of administrative positions and 10% of technical positions filled by women by Quarter III 2013</p> <p>GAP implementation progress included as part of Rice-</p>	<p>Notice to proceed issued by EA</p> <p>Rice-SDP progress and monitoring quarterly reports Registry of contract awards and withdrawal applications</p> <p>Base-line impact evaluation submission by EA</p> <p>End-line impact evaluation submission by EA</p> <p>Rice-SDP progress and monitoring reports.</p>	<p><b>Assumption</b> Qualified staff are appointed to implement Rice-SDP</p> <p><b>Risks</b> Provincial capacity is insufficient</p> <p>The availability of qualified staff is limited</p>

Design Summary	Performance Targets and Indicators with Baselines	Data Sources/ Reporting Mechanisms	Assumptions and Risks
	SDP quarterly progress reports		

Activities with Milestones	Inputs																																																																
<p><b>1. Conducive Legal and Regulatory Environment Established</b></p> <p>1.1 Establish working groups for interagency dialogue and public discussions of the respective key policy areas by Q3 2013.</p> <p>1.2. Produce reports on policy themes by Q2 2016.</p> <p><b>2. Agricultural Land-use Zoning Improved</b></p> <p>2.1 Undertake commune AEAs to identify zones for rice cropping systems by Q4 2017.</p> <p>2.2. Incorporate the AEAs identified above into CLUPs by Q4 2017.</p> <p>2.3. Develop three provincial rice eco-system maps by Q4 2017.</p> <p><b>3. Climate Resilient Rice Value Chain Infrastructure Developed</b></p> <p>3.1 Recruit national consulting firms to carry out feasibility studies on subprojects for climate resilient irrigation rehabilitation, drying and storage facilities, and associated initiatives by Q1 2014.</p> <p>3.2 Rehabilitate identified irrigation schemes and prepare asset management plans by Q4 2018.</p> <p>3.3. Establish paddy drying and storage facilities by Q4 2018.</p> <p>3.4. Establish seed drying and storage facilities by Q4 2018.</p> <p>3.5 Implement associated initiatives including pilot land leveling, technical extension services, farmer group support, marketing facilitation, and contract farming by Q4 2018.</p> <p><b>4. Enhanced Rice Value Chain Support Services</b></p> <p><b>4.1 Increased Availability of Quality Rice Seed</b></p> <p>4.1.1 Develop a national seed certification scheme by Q4 2014.</p> <p>4.1.2 Produce foundation and certified seed under contract for selected rice varieties involving CARDI and the private sector by Q4 2017.</p> <p><b>4.2 Expanded and Developed Technical Extension Services</b></p> <p>4.2.1 Revise the six "technology information procedures" on rice production incorporating good agricultural practices by Q4 2014.</p> <p>4.2.2 Develop a mass media extension material for use by extension services country-wide by Q4 2014.</p> <p><b>4.3 Enhanced Business Management Capacities</b></p> <p>4.3.1 Study the adoption of bulk handling by Q4 2014.</p> <p>4.3.2 Provide technical assistance to improve mill operation and management to 10 rice mills by Q4 2014 and 30 rice mills by Q4 2018.</p> <p>4.3.3 Organize three study tours and training for millers in neighboring countries to investigate modern milling technologies by Q4 2016.</p> <p><b>4.4 Improved Access to and Reduced Cost of Finance</b></p> <p>4.4.1 Develop capacities of financial institutions to appreciate diverse loan demand by rice value chain stakeholders and for the latter to understand FIs' loan products by Q4 2016.</p> <p><b>5. Feasibility Study, Design and Pilot Testing of WICI</b></p> <p>5.1 Engage an international firm in association with a national firm for undertaking feasibility study by Q1 2014</p> <p>5.2 Determine feasibility of WICI in Cambodia by Q2 2013</p> <p>5.3 Upgrade automatic weather stations in selected areas by Q4 2013</p> <p>5.4 Design WICI by Q1 2014</p> <p>5.5 Pilot WICI in selected areas by Q2 2014</p> <p>5.6 Evaluate the results of WICI in pilot areas by Q1 2017</p> <p><b>6. Efficient Project Management and Implementation</b></p> <p>6.1 Establish and operationalize PMO, NIOs and PIOs by Q3 2013.</p> <p>6.2 Appoint and mobilize PICs by Q3 2013.</p> <p>6.3 Design and operate Rice-SDP's gender disaggregated program performance monitoring system by Q4 2013.</p> <p>6.4 Undertake annual audits, mid-term review and the preparation of a program completion report by Q4 2018.</p>	<p style="text-align: right;">Unit: \$ million</p> <p><b>ADB Policy-based Loan: \$24.00</b></p> <table border="1"> <thead> <tr> <th>Item</th> <th>Amount</th> </tr> </thead> <tbody> <tr> <td>Tranche 1</td> <td>12.00</td> </tr> <tr> <td>Tranche 2</td> <td>12.00</td> </tr> </tbody> </table> <p><b>ADB ADF Loan: \$31.00</b></p> <table border="1"> <thead> <tr> <th>Item</th> <th>Amount</th> </tr> </thead> <tbody> <tr> <td>Civil Works</td> <td>17.60</td> </tr> <tr> <td>Associated Initiatives</td> <td>0.53</td> </tr> <tr> <td>Vehicles &amp; Equipment</td> <td>0.65</td> </tr> <tr> <td>Consulting Services</td> <td>3.75</td> </tr> <tr> <td>Implementation and Supervision</td> <td>7.54</td> </tr> <tr> <td>Interest Charges</td> <td>0.93</td> </tr> </tbody> </table> <p><b>GAFSP Grant: \$14.60</b></p> <table border="1"> <thead> <tr> <th>Item</th> <th>Amount</th> </tr> </thead> <tbody> <tr> <td>Civil Works</td> <td>0.62</td> </tr> <tr> <td>Equipment</td> <td>7.17</td> </tr> <tr> <td>Contract Services</td> <td>3.28</td> </tr> <tr> <td>Office Equipment</td> <td>0.10</td> </tr> <tr> <td>Consulting Services</td> <td>1.11</td> </tr> <tr> <td>Training and Studies</td> <td>1.81</td> </tr> <tr> <td>Implementation and Supervision</td> <td>0.50</td> </tr> </tbody> </table> <p><b>ADB SCF Loan: \$5.00</b></p> <table border="1"> <thead> <tr> <th>Item</th> <th>Amount</th> </tr> </thead> <tbody> <tr> <td>Civil Works</td> <td>3.31</td> </tr> <tr> <td>Associated Initiatives</td> <td>1.10</td> </tr> <tr> <td>Contract Services</td> <td>0.59</td> </tr> </tbody> </table> <p><b>ADB SCF Grant: \$4.50</b></p> <table border="1"> <thead> <tr> <th>Item</th> <th>Amount</th> </tr> </thead> <tbody> <tr> <td>Civil Works</td> <td>0.42</td> </tr> <tr> <td>Crop Insurance</td> <td>2.00</td> </tr> <tr> <td>Consulting Services</td> <td>2.08</td> </tr> </tbody> </table> <p><b>Government: \$8.33</b></p> <table border="1"> <thead> <tr> <th>Item</th> <th>Amount</th> </tr> </thead> <tbody> <tr> <td>Staff Costs</td> <td>1.46</td> </tr> <tr> <td>Resettlement costs</td> <td>0.43</td> </tr> <tr> <td>Land purchase</td> <td>0.88</td> </tr> <tr> <td>Taxes and Duties</td> <td>5.54</td> </tr> <tr> <td>Service charges for SCF loan</td> <td>0.02</td> </tr> </tbody> </table>	Item	Amount	Tranche 1	12.00	Tranche 2	12.00	Item	Amount	Civil Works	17.60	Associated Initiatives	0.53	Vehicles & Equipment	0.65	Consulting Services	3.75	Implementation and Supervision	7.54	Interest Charges	0.93	Item	Amount	Civil Works	0.62	Equipment	7.17	Contract Services	3.28	Office Equipment	0.10	Consulting Services	1.11	Training and Studies	1.81	Implementation and Supervision	0.50	Item	Amount	Civil Works	3.31	Associated Initiatives	1.10	Contract Services	0.59	Item	Amount	Civil Works	0.42	Crop Insurance	2.00	Consulting Services	2.08	Item	Amount	Staff Costs	1.46	Resettlement costs	0.43	Land purchase	0.88	Taxes and Duties	5.54	Service charges for SCF loan	0.02
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Contract Services	0.59																																																																
Item	Amount																																																																
Civil Works	0.42																																																																
Crop Insurance	2.00																																																																
Consulting Services	2.08																																																																
Item	Amount																																																																
Staff Costs	1.46																																																																
Resettlement costs	0.43																																																																
Land purchase	0.88																																																																
Taxes and Duties	5.54																																																																
Service charges for SCF loan	0.02																																																																

ADB = Asian Development Bank, ADF = Asian Development Fund, AEA = agro-ecosystems analysis, CARDI = Cambodia Agricultural Research and Development Institute, CLUP = commune land-use plan, EA = executing agency, FI = financial institution, FWUC = farmer water user community, GAFSP = Global Agriculture and Food Security Program, GAP = gender action plan, IA = implementing agency, MAFF = Ministry of Agriculture Fisheries and Forestry, MLMUPC = Ministry of Land Management, Urban Planning and Construction, NIO = National Implementation Office, PDWRAM = Provincial Department of

Water Resources and Meteorology, PIC = program implementation consultants, PIO = Provincial Implementation Office, PMO = Program Management Office, Rice-SDP = Climate Resilient Rice Commercialization Sector Development Program, SCF = Strategic Climate Fund, WICI = weather-indexed crop insurance.  
Source: Asian Development Bank.

## **B. Monitoring**

### **1. Program Performance Monitoring**

199. A PPMS will be developed on the basis of the program design and monitoring framework to record the Program's technical performance, evaluate delivery of program facilities, assess achievement of the program's objectives and measure the social, economic, financial and institutional impacts. The PMO will be responsible for developing and operating the PPMS with assistance from the PIC and information provided by the implementation agencies and the PIOs, and will report monthly to ADB. Progress monitoring, safeguard monitoring and benefit monitoring and evaluation will be carried out regularly during program implementation. Post-evaluation will be carried out three years after program completion. A baseline survey covering both target and control groups, and periodic surveys will be carried out by collecting data disaggregated by income group, sex, and other characteristics as appropriate. The EA will maintain a Program-specific web-page, in English and Khmer, on its official web-site, for wider dissemination of procurement and distribution related information, and to provide a feedback mechanism.

### **2. Compliance Monitoring**

200. A number of assurances have been given by the government to ensure the smooth implementation of the Program. Those are subject to Loan covenants (Loan Agreement - Schedule 5). The ADB will monitor compliance with those covenants throughout program effectiveness and implementation via regular review missions, quarterly progress reports submitted by the CPMU, and review of program accounts and procurement procedures.

### **3. Safeguards, Gender and Social Monitoring**

201. The PIOs with assistance from the PIC will be responsible for implementation of the RP, EMP and GAP in their respective province. The safeguards and gender specialists from the PIC will assist in the preparation and updating of the RP, EMP and GAP, and will support the PIOs in the monitoring of their implementation. In addition, the PMO will recruit external monitoring entities such as NGOs or Universities to monitor implementation of the safeguard programs.

### **4. Evaluation**

202. ADB will conduct regular (at least twice per year) reviews throughout program implementation to review and assess implementation performance and achievement of program outcomes and objectives; examine financial progress; and identify issues and constraints affecting the Program and work out time-bound action plans for their resolution.

203. Apart from regular reviews, a comprehensive mid-term review will be jointly undertaken by the government and ADB within 36 months of the effectiveness to identify implementation problems and to revise the PAM and other arrangements as necessary to resolve problems identified. These reviews will include a comprehensive evaluation of program implementation arrangements, detailed evaluation of the scope and implementation process and progress of subprojects, feedback from the PPMS, performance of consultants, capacity building progress, pilot testing of WICI and possible reallocation of loan and grant proceeds. During this more significant review, the impact from the pro-poor initiatives linked to infrastructure development will be assessed as will the allocation by local administrations

for the maintenance of the infrastructure developed under the program. Remedial action will be instituted as required.

204. Within 6 months of physical completion MEF will submit a program completion report to ADB.<sup>49</sup> In turn, the ADB will conduct a program completion mission to carry out a preliminary assessment of the success of the program to achieve its physical, and socioeconomic developmental objectives, as well as to review compliance with ADB requirements and loan covenants.

## **5. Reporting**

205. The PMO will prepare and submit to MEF and ADB within 30 days of the end of each calendar quarter, consolidated quarterly progress reports in a format consistent with ADB's project performance reporting system. These progress reports are designed to allow ADB staff to readily capture key information to record in ADB's project reporting system.

206. In addition to these quarterly progress reports, the PMO will prepare consolidated annual reports, which will include (a) progress achieved by output as measured through the indicator's performance targets, (b) key implementation issues and solutions; (c) an updated procurement plan; and (d) an updated implementation plan for the next 12 months. To ensure the program continue to be both viable and sustainable, program accounts and the executing agency annual financial statements, together with the associated auditor's report, should be adequately reviewed.

207. Within 6 months of physical completion of the Program, the CPMU will submit to ADB a completion report that describes the physical achievements of the Program, actual costs incurred in relation to cost estimates, the results of program activities, a preliminary assessment of achieved benefits, and other relevant program implementation matters requested by ADB.<sup>50</sup>

## **6. Stakeholder Communication Strategy**

### **a. Community Consultation**

208. A number of consultations with stakeholders have taken place during the Rice-SDP's design. During implementation, the process of consultation will continue throughout the detailed design phase of each subproject to afford community groups the opportunity to voice their views on how the subproject is to be designed, implemented and operated. This will be accomplished through a series of community consultation meetings at commune and district level. The community consultation meetings will be carried out by the PIO and the consultants. It will include the participation of representatives from the local government, civil societies, and NGOs. The communities will be briefed on all aspects of the subproject including safeguard issues of environment, resettlement. Women will be particularly encouraged to actively participate in the consultation meetings and voice their opinions and views about the subproject design and implementation arrangements.

209. The community will also be informed of the O&M arrangements for the subproject and their expected participation in kind or otherwise in this aspect of the work. They will be encouraged to provide ideas and feedback to the design team and raise their concerns regarding potential negative impacts of the subproject design on the environment and the

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<sup>49</sup> Project completion report format is available at: <http://www.adb.org/Consulting/consultants-toolkits/PCR-Public-Sector-Landscape.rar>

<sup>50</sup> Project completion report format available at: <http://www.adb.org/Consulting/consultants-toolkits/PCR-Public-Sector-Landscape.rar>

welfare of the community. The process of consultation is expected to build ownership of the subprojects by the community and hence foster better sustainability of the investment.

#### **b. Community Participation**

210. It is anticipated that the community will be mobilized in a number of different ways during subproject design, implementation and operation. Since a number of the subprojects are expected to involve rehabilitation of existing infrastructure, there is limited scope for the community to participate in the selection of the site and alignment for instance. At this stage the community participation will consist mostly to their contribution during consultation meetings.

211. During the construction phase, a significant opportunity for active participation, and for many poor households to benefit from the subproject, is in providing wage labor. This will be encouraged through the bidding documents which will request the contractors to investigate this option whenever possible. Women and men will be employed on the basis of "equal pay for equal work". No child shall be employed by any contractor or government agency for this Program. The community will also be required to participate in the O&M of the completed infrastructure whenever possible through provision of labor or in some cases funds.

#### **c. Community Awareness**

212. Experience has demonstrated the importance of community participation in achieving sustainable development including appropriate and well-designed infrastructure. To ensure adequate participation of the community, it must first be well-informed and there must be adequate opportunities for everyone to participate if they wish.

213. Information about the program and the subprojects in particular, including the objectives, potential environmental impact, implementation arrangements, resettlement and compensation matters, and gender issues will be provided to beneficiaries. The PIOs will design a community awareness program for each subproject and each community and will make this information available to the commune in Khmer language.

214. Awareness programs will take advantage of existing social development systems such as commune /village meetings and announcements on commune speaker systems, but may also include different and more innovative approaches. The community will be fully informed of issues such as their right to participate in this subproject and to be compensated for any loss of property including productive land and / or assets; as well as gender equity and other relevant policies. Separate meetings and discussions will be arranged with the people who are directly affected by land acquisition and/or resettlement issues. The community and particularly the affected households will be provided with detailed guidance and procedures regarding resettlement and compensation.

## X. ANTICORRUPTION POLICY

215. ADB reserves the right to investigate, directly or through its agents, any violations of the Anticorruption Policy relating to the Program.<sup>51</sup> All contracts financed by ADB shall include provisions specifying the right of ADB to audit and examine the records and accounts of the executing agency and all Program contractors, suppliers, consultants and other service providers. Individuals/entities on ADB's anticorruption debarment list are ineligible to participate in ADB-financed activity and may not be awarded any contracts under the Program.<sup>52</sup>

216. To support these efforts, relevant provisions of ADB's *Anticorruption Policy* are included in the loan regulations and the bidding documents for the Program. In particular, all contracts financed by ADB in connection with the Program shall include provisions specifying the right of ADB to audit and examine the records and accounts of MEF, PMO, MAFF, MLMUPC, the PIOs, all contractors, suppliers, consultants, and other service providers as they relate to the Program. The program design and implementation arrangements provide for mitigation of corruption risks. Risks associated with program management, including procurement and disbursement, will be mitigated by (i) engaging international and national consultants to advise and assist in the procurement of goods and services, procurement and supervision of civil works, and the engagement of other consultants; (ii) introducing a dual signing system in which the civil works contractor awarded the contract will also sign an anticorruption contract with the employer; and (iii) periodic inspection by the PMO of the contractor's activities relating to fund withdrawals and settlements. The Program will also establish a website in which it will disclose implementation progress; bid notifications and their results; and provides grievance mechanism against any corrupt practice. References on ADB's Anticorruption Policy can be accessed through the following link: <http://www.adb.org/Integrity/>.

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<sup>51</sup> Available at: <http://www.adb.org/Documents/Policies/Anticorruption-Integrity/Policies-Strategies.pdf>

<sup>52</sup> ADB's Integrity Office web site is available at: <http://www.adb.org/integrity/unit.asp>

## **XI. ACCOUNTABILITY MECHANISM**

217. People who are, or may in the future be, adversely affected by the program may submit complaints to ADB's Accountability Mechanism. The Accountability Mechanism provides an independent forum and process whereby people adversely affected by ADB-assisted programs can voice, and seek a resolution of their problems, as well as report alleged violations of ADB's operational policies and procedures. Before submitting a complaint to the Accountability Mechanism, affected people should make a good faith effort to solve their problems by working with the concerned ADB operations department. Only after doing that, and if they are still dissatisfied, should they approach the Accountability Mechanism.<sup>53</sup>

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<sup>53</sup> For further information see: <http://www.adb.org/Accountability-Mechanism/default.asp>.

## **XII. RECORD OF PAM CHANGES**

218. All revisions/updates during the course of implementation will be retained in this Section to provide a chronological history of changes to implemented arrangements recorded in the PAM.

<b>#</b>	<b>Description of Revision</b>	<b>Date</b>
1	Initial draft for discussion prepared	June 2012
2	Fact Finding Mission	August 2012
3	Incorporating comments from cross-departmental review	January 2013