



Combined Project Information Documents / Integrated Safeguards Datasheet (PID/ISDS)

Appraisal Stage | Date Prepared/Updated: 03-Sep-2018 | Report No: PIDISDSA23484

**BASIC INFORMATION****A. Basic Project Data**

Country Sri Lanka	Project ID P163742	Project Name Climate Smart Irrigated Agriculture Project	Parent Project ID (if any)
Region SOUTH ASIA	Estimated Appraisal Date 28-Aug-2018	Estimated Board Date 08-Nov-2018	Practice Area (Lead) Agriculture
Financing Instrument Investment Project Financing	Borrower(s) Ministry of Finance	Implementing Agency Ministry of Agriculture	

Proposed Development Objective(s)

The Project Development Objective is to improve the productivity and climate resilience of smallholder agriculture in selected hotspot areas.

Components

Agriculture Production and Marketing
Water for Agriculture
Project Management
Contingent Emergency Response

PROJECT FINANCING DATA (US\$, Millions)**SUMMARY**

Total Project Cost	140.00
Total Financing	140.00
of which IBRD/IDA	125.00
Financing Gap	0.00

DETAILS**World Bank Group Financing**

International Bank for Reconstruction and Development (IBRD)	125.00
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Non-World Bank Group Financing



Counterpart Funding	15.00
Borrowing Agency	10.00
LOCAL: BENEFICIARIES	5.00

Environmental Assessment Category**B-Partial Assessment****Decision**

The review did authorize the team to appraise and negotiate

A. Introduction and Context

- Sri Lanka is a Lower Middle-Income country with a GDP per capita of USD 4,073 (2017) and a total population of 21.4 million people.** Following 30 years of civil war that ended in 2009, Sri Lanka's economy grew at an average 5.8 percent during the period of 2010-2017, reflecting a peace dividend and a determined policy thrust towards reconstruction and growth; although there were some signs of a slowdown in the last few years. The economy is transitioning from a predominantly rural-based economy towards a more urbanized economy oriented around manufacturing and services. Economic growth has contributed to the decline in the national poverty headcount ratio from 15.3 percent in 2006/07 to 4.1 percent in 2016. Extreme poverty is rare and concentrated in some geographical pockets.
- The Government that came to power in 2015 envisions promoting a globally competitive, export-led economy with an emphasis on inclusion.** It has indicated keenness to undertake reforms in the areas of public finance, competitiveness, governance, and education sectors. In 2017, the Government presented Vision 2025, a policy document that both identified economic limitations due to the constrained fiscal space and presented structural reforms (including the promotion of private sector participation) to address key economic challenges and strengthen economic growth. Despite Sri Lanka's remarkable economic achievements, many people continue to be at risk of falling back into poverty.
- Sri Lanka is vulnerable to climate-related natural disasters that have major economic impacts.** Long-term, annual losses for housing, infrastructure, agriculture, and relief from natural disasters are estimated at LKR 50 billion (USD 327 million), with the highest annual expected losses from floods, cyclones or high winds, droughts and landslides. This is equivalent to 0.4 percent of GDP or 2.1 percent of GoSL expenditures. Due to the increased sophistication of the economy the damage caused by the 2016 and 2017 floods and landslides was more than twice as high in US\$ terms than the worst flood disasters between 1992 and 2011.

B. Sectoral and Institutional Context

- The agriculture sector remains the backbone of Sri Lanka's culture and economy.** The agriculture sector contributes 7.7 percent to GDP and still employs approximately 27 percent of the population. Of the country's approximately 2.3 million hectares of agricultural land, around 80 percent is under smallholder production, with around 1.65 million smallholder farmers operating on average less than 2 hectares. Sri Lanka has successfully attained



self-sufficiency in rice through policy interventions including fertilizer subsidies. However, expenditures on vital public services, such as Research and Development (R&D) and extension services account for only three percent of total agriculture expenditure and much of this limited budget is spent on rice research. The focus on self-sufficiency in rice has limited farmer's opportunities to diversify into higher value products and kept the sector concentrated in the low value food crops. As a result, agriculture productivity, as measured by Total Factor Productivity (TFP), has only grown by an average of 0.6 percent per year since 1980 and Sri Lanka lags significantly behind other South and East Asian countries. Women contribute to over 38 percent of the farming operations in Sri Lanka. However, the unemployment rates of women are more than double that of men at all age levels, with more than 60 percent of women engaged in agriculture working as unpaid family labor. Furthermore, only 10 percent of female farmers receive extension services in comparison to 90 percent of male farmers.

5. **Irrigation is a key feature of the smallholder agriculture sector.** Sri Lanka has a long history of water management for agriculture production. The expansion of crop cultivation into the dry zones of the north, east and south-east of the country was enabled through the construction of elaborate water management systems, dating back to the period between 500 BC and 300 AD. The systems are based on water capture in small reservoirs commonly known as "tanks" connected via canals into "cascades" which enabled crop cultivation throughout the country including those areas with long and variable dry seasons. Tank cascades remain the primary source of water for dry season cultivation of approximately 74,150 hectares, supporting the livelihoods of approximately 154,744 farmers. Recently, water scarcity has increased because of high inter-annual and inter-seasonal variability in rainfall, catchment area land-use changes which have reduced the proportion of rainfall available for capture in downstream tanks, and the growing demand for water to meet the needs of a growing population. For example, drought in 2016 and 2017 affected 1,927,069 people across 17 districts, according to the Disaster Management Centre. During the Maha season in 2016, 612,224 hectares of paddy were cultivated of which 50,615 hectares were damaged due to the drought, with total production of MT 2.383 million, 30 percent of the average in last ten years.

6. **Hotspot areas are the most vulnerable to climatic events.** Although much of the country has been subject to the increased frequency and severity of climate events, some areas have emerged as being particularly susceptible to either flood or drought events, or both. These are areas which are predominantly agriculture based and therefore the livelihoods of smallholder farmers are at risk. Hotspots have been identified through a rigorous, analysis of empirical evidence by the Department of Agrarian Development (DAD) of the Ministry of Agriculture (MoA), the World Food Program (WFP) and the International Water Management Institute (IWMI).

7. **The management of irrigation water suffers from institutional fragmentation and lack of local accountability.** The management of irrigation tanks has undergone a transformation in the post-independence period. Community institutions which originally managed these tanks were initially replaced with a new GoSL-led institutional system that ultimately became ineffective. To overcome the top-down management of tank systems, since 1978 there have been experiments in Participatory Irrigation Management (PIM), involving local communities in the management of irrigation schemes. PIM was approved as official policy in 1992 and Farmer Organizations (FOs) were created by the Agrarian Services Act of 1991 to manage minor tanks. Despite this policy direction, less capacity of FOs to manage limited remaining water and lack of strong oversight from GoSL have compounded the situation. Within GoSL, the responsibility for the management of these tanks currently lies with three different institutions: Ministry of Irrigation, Water Resource and Disaster Management (MIWRDM); Ministry of Agriculture (MoA) and, Provincial Councils (PCs). The responsibility for system maintenance budgeting and implementation is shared across these institutions and FOs often with unclear mandates. Water user fees were removed after the independence, and GoSL started to allocate maintenance budgets which are insufficient to meet maintenance needs. But, FOs collect contribution from farmers and they are maintaining their own Operation and Maintenance (O&M) funds.



8. **While many of these tanks are still functioning, some are in a completely dilapidated condition and the overall performance is low.** Past tank rehabilitation efforts have largely failed to produce the desired results for many reasons. Firstly, insufficient attention has been paid to water and land use management in the upstream catchment areas. The supply of water from upstream catchment areas is in most cases decreasing because of land use changes, including deforestation and infrastructure development, which has also increased the flow of silt into the supply canals and tanks resulting in declined water inflows into the tanks and reduced water storage capacity in the tanks. Secondly, previous rehabilitation efforts have not adequately accounted for the hydraulic inter-connectedness of tanks within cascades resulting in sub-optimal development of water resources and negative downstream impacts. Finally, past rehabilitation efforts have not sufficiently factored in either growing water demand in the tank command areas or the likely future impacts of climate change, such that rehabilitated tanks have failed to provide enough water supply to meet even current demand.

9. **Improved access to irrigation and better water management needs to be addressed in conjunction with improving productivity in the sector.** Agriculture productivity is low due to an inhibiting policy framework, weak public services and low levels of private investment. With rice self-sufficiency secured, a consensus has recently emerged within the GoSL that the country should take a more strategic approach to addressing low productivity by (i) modernizing water resource infrastructure, minimizing flood damages and managing water allocation more efficiently and (ii) diversifying the agricultural sector away from relatively low value food crops towards high value and export-oriented commodities. In the water sector, an integrated basin approach to water investment and management needs to be built on integrated basin plans developed through effective stakeholder participation. As a middle-income country in an economically strong region, farmers can capitalize on growing domestic consumer demand for diversified, nutritious, and higher-valued foods and take advantage of the country's proximity to fast growing neighboring markets. The GoSL has recently implemented measures to improve the competitiveness of the agriculture sector, such as promoting commercial and export-oriented agriculture through attracting and leveraging investments from farmer producer organizations and agribusinesses for high value agriculture production and value addition under the Bank-supported Agriculture Sector Modernization Project.

C. Proposed Development Objective(s)

Development Objective(s) (From PAD)

10. The Project Development Objective is to improve the productivity and climate resilience of smallholder agriculture in selected hotspot areas.

Key Results

11. The key results indicators to assess project outcomes are:
- KPI 1: Increase in water productivity at farm level (Custom);
 - KPI 2: Increase in agriculture productivity of crops (Custom);
 - KPI 3: Crop diversification index (Custom); and
 - KPI 4: Direct project beneficiaries, segregated by gender (CRI).

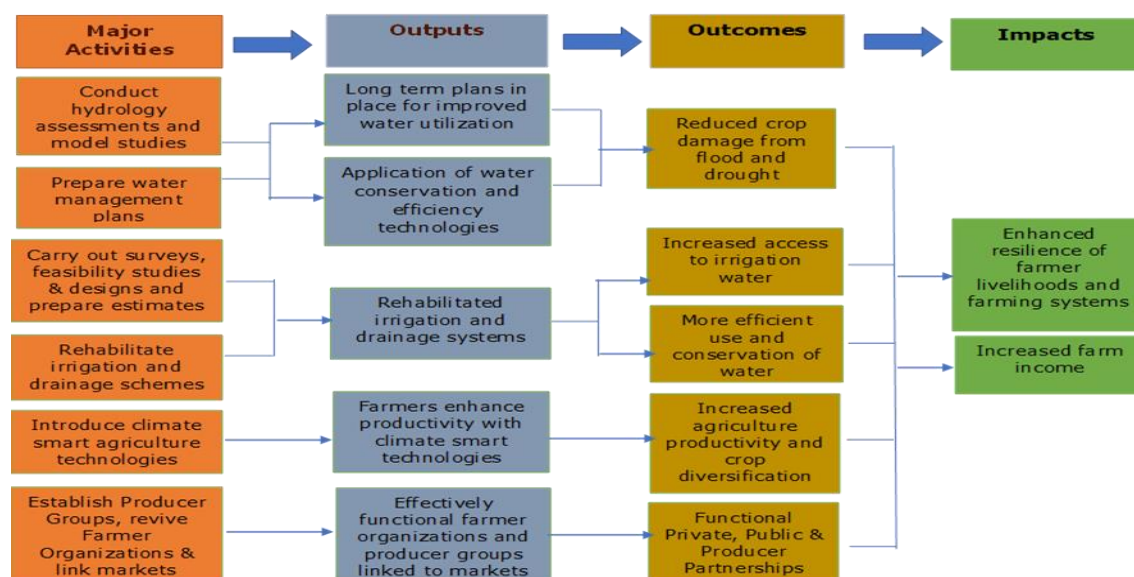
D. Project Description

12. **Theory of Change:** The project will address the key problem of the vulnerability of agriculture systems in



climatic hotspot areas of the country. The drivers of this vulnerability are (i) lack of farmer access to reliable sources of irrigation water, (ii) insufficient protection of agriculture land from floods; (iii) low levels of diversification in agriculture production; and (iv) limited adoption of climate-smart technologies. Addressing these issues will involve an approach that (i) addresses expected long-term trends in climate change including the frequency and severity of climatic events (flood and drought); (ii) adopts a catchment scale approach to water management; and (iii) integrates agriculture and water by working with farmers and Farmer Organizations (FOs) to improve the sustainable management of water and soil resources, and promote the adoption of suitable on-farm water management and crop production technologies.

13. The proposed project interventions will introduce catchment level hydrological assessments that incorporate future climate change projections to assess water availability and identify appropriate investments for upper catchment area treatments, water harvesting, rehabilitation of irrigation systems and reduced flood damage. Once water availability is assessed in a river basin, watersheds, sub-watersheds, cascades and individual tanks, then technical designs will be carried out for the tank irrigation systems, which consist of watershed catchment area, tank headworks, canal system and agriculture production area. The water stored in rehabilitated tanks will be used to commence CSA activities. Management of irrigation schemes will be enhanced through improved capacity of FOs. The project would support the identification, demonstration and adoption of technologies to both improve water use efficiency and enable farmers to diversify their production and move into higher value crops. Finally, support would be provided to enable farmers to have improved market access. Through these interventions, as stated below, the core project objectives of improving climate resilience and increased productivity would be achieved.



14. **Project Beneficiaries:** The primary project beneficiaries will be over 470,000 smallholder farmers in hotspot areas (375,000 ha) in eleven administrative districts (Kilinochchi, Mullaitivu, Anuradhapura, Polonnaruwa, Puttalam, Kurunegala, Trincomalee, Batticaloa, Ampara, Hambantota and Moneragala) spread across six provinces (Northern, North Central, North Western, Eastern, Southern and Uva) in the dry zone of Sri



Lanka (see Project Area in Annex 9). Smallholder farmers consist of small farmers (1.0 to 2.0 ha of farm land) and marginal farmers (less than 1.0 ha). They will gain knowledge and technology transfer and access to infrastructure assets to enhance climate resilience in farming resulting in increased revenue from crop diversification and participation in emerging value chains. Many technical and managerial staff of the participating agencies will benefit through training and capacity building activities. The project will also promote participation of youth and women in all key project interventions to ensure that they would benefit from the project activities.

15. **Hot-Spot Area Development Model:** Given the centrality of tanks in the agrarian livelihoods of the dry zone of Sri Lanka, their current levels of neglect and the increasing vulnerability of these areas to *both* droughts and floods in quick succession with consequent impacts on agricultural production and incomes, the rehabilitation of tank-based irrigated agricultural systems is key to improving the resilience of these areas and the agrarian communities that depend on them. Resilience being ‘the ability of a system to bounce back or return to normal functioning after adversity’,¹ the Hot-Spot Area Development model aims to enhance the resilience of these areas and those who depend on them for their livelihoods. Climate shocks add to relatively low paddy productivity. Resilience will be built through stable and rising incomes of agrarian families living in these hotspot areas despite increasing climatic variability. The expected results of this novel model will be achieved by (1) *flexible and adaptive management of existing and improved irrigation water storage and delivery structures* to make irrigation more reliable in the face of rising climatic variability (including more frequent episodes of high intensity rainfall and flooding and/or drought); (2) *better agricultural inputs, techniques and practices that will help farmers maximize water use efficiency given rising climatic variability – and reduce crop harvest losses*; and (3) *better access to new markets and higher prices, through marketing higher up the value chain, more competitive agri-enterprises and upgraded infrastructure for agricultural trade* to stabilize and increase incomes from agricultural livelihoods. The project will prioritize nutrient-rich foods to improve year-round nutrition.

16. **Phasing:** In view of the complexity and innovativeness of the project and to learn lessons, the project will be implemented in three overlapping stages. The first stage (2018–2021) will cover three Hot-Spot Areas (Anuradhapura, Kurunegala and Kilinochchi districts), whereas the second (2020–2023) and third (2021–2024) stages will cover the balance eight districts. Progress will be reviewed annually and prior to completion of every stage, to sanction the next stage of implementation. All project financed activities in a stage will be completed in 3 years but the O&M activities will continue till end of the project.

Project Components

17. **Component 1: Agriculture Production and Marketing (US\$ 42 million).** The objective of this component is to improve agriculture productivity and diversification through the adoption of CSA practices and improved on-farm water management.

18. **Component 2: Water for Agriculture (US\$ 92 million).** The objective of this component is to facilitate (a) planning for water and other infrastructure necessary to support climate-resilient irrigated agriculture, (b)

¹ Headington Institute. n.d. *Resilience*, <http://www.headington-institute.org/topic-areas/123/resilience>. Bahadur *et al.* (2015) define resilience as the ability of a system to *anticipate, absorb* and *adapt* to shocks and stresses’ while [Holling \(1973\) coined the term, writing:](#) ‘Resilience determines the persistence of relationships within a system and is a measure of the ability of these systems to absorb changes of state variables, driving variables, and parameters, and still persist’.



construction of the planned infrastructure; and (c) co-management of this infrastructure by central/provincial governments and the local community.

19. **Component 3: Project Management (US\$ 6 million).** The objective of this component is to ensure the quality of overall project management, while ensuring smooth coordination of activity implementation by various agencies and strategic partners at national and subnational levels. This component will finance (i) the consultancy and operating costs of the PMU and DPD Offices and of different project executing agencies, including for fiduciary and safeguard aspects; (ii) the monitoring and evaluation of project activities at baseline, midterm and end of project, including geotagging of the assets created; and (iii) information, education and communication campaigns to make all stakeholders aware of the project.

20. **Component 4: Contingent Emergency Response (US\$ 0.0 million).** This emergency response component will allow for rapid reallocation of project proceeds in the event of a natural or man-made disaster or crisis that has caused or is likely to imminently cause a major adverse economic and/or social impact.

21. **Climate Co-Benefits:** The project seeks to derive Climate Co-Benefits (about 95 percent) through: (i) enhanced water security at farm level through the rehabilitation and modernization of irrigation systems and improvement in water efficiency; (ii) improved soil health through the adoption of good agricultural practices to improve soil fertility, soil nutrient management, and promote soil carbon sequestration; and (iii) improved adaptation to climate risks through increased farm productivity and crop diversification.

22. **Project Cost and Financing:** The project will be financed through a six-year Investment Project Financing (IPF) loan. The total project cost is US\$140 million and will be funded by an IBRD loan of US\$125 million, with the GoSL contribution of US\$ 10 million to cover salary costs on parallel basis and the Beneficiaries contributing US\$ 5 million in kind. Retroactive financing up to an aggregate amount of US\$ 5 million will be available for eligible expenditures incurred under all project components and all categories prior to the date of signed Loan Agreement, but on or after July 01, 2018.

E. Implementation

23. The key design features incorporated in the institutional and implementation model include: *multi-stakeholder approach* - different stakeholders involved in the field of climate resilient irrigation and agriculture are expected to contribute to project implementation from national to sub-national levels; *coordinated approach* - stakeholders are expected to share knowledge and resources in a collaborative manner at each level; *citizen engagement* - local smallholder farmers, medium sized agribusiness owners, common interest groups, producer organizations, individual entrepreneurs and their customers will be involved in the planning & implementation of project activities, along with government counterparts, NGOs, academia and the private sector; *consistency with the National Poverty Alleviation Programme* – since the project will also work with the People's Company of the Grama Shakthi Programme implemented at Grama Niladhari Division (GND) level; *Use of existing government staff* – except a few of the full-time key professionals to be recruited from the open market, the rest of the staff will be from existing government cadres and work on a part-time basis at both national and provincial levels; and *gender equality* - the project design and approach will take into account the gender dimension and ensure that the project provides equal opportunities for women to participate in the project cycle.



24. **Institutional arrangements:** The project is fully integrated in the GOSL administration, and the implementation is designed to capitalize on existing government agencies at national, provincial, district, divisional, and Grama Niladhari Division levels. A Project Management Unit (PMU) will be established under the Ministry of Agriculture, whereas Deputy Project Director's Offices (DPD Offices) will be established under the Ministries of Irrigation & Water Resources Management and of Provincial Councils and Local Government. At provincial level, there will be Provincial DPD Offices set up in each of the participating Provinces to implement the project. The Provincial DPD Offices will be set up under the Chief Secretaries in Kilinochchi, Kurunegala, Anuradhapura, Trincomalee, Hambantota and Moneragala Districts, and they will cover the district level activities of the respective districts. In addition, a District Unit of the DPD Office will be established under the District Secretary at the Office of the Assistant Commissioner of Agrarian Development in Puttalam, Batticaloa, Mullaitivu, Polonnaruwa and Ampara Districts to coordinate all agencies operating at district level.
25. There will be a Project Appraisal Team (PAT) set up at district level, and it will be coordinated by the District Planning Director. The PAT is an independent body and will report to the DPD. In addition, at the district level, there will be an advisory committee headed by the District Secretary. The Divisional secretaries of the participating divisions and district and divisional level heads of the government agencies, representatives of chamber of commerce, Associations of Farmer/Producer Organizations and NGOs will participate in the Advisory Committee. The Advisory Committee will guide the project implementers at the district level to implement CSIAP effectively.
26. At Divisional level, there will be a Divisional Unit of the Provincial DPD Office set up at the Agrarian Service Center (ASC), and it will be headed by the Divisional Officer of the ASC. The Divisional Unit will function as a supporting unit to the Provincial DPD office and work closely with the District Unit to implement the Project effectively. The community based organizations, such as Farmer Organizations (FOs), Producer Groups (PGs), and Grama Shakthi People's Company (GSPCs) operating at the Grama Niladhari Division (GND) level are the institutions that will be actively involved in the project together with the beneficiary farmers at the community level. Given the transformative nature of the project, institutional coordination across the relevant sectors is emerging as a critical task for the PMU in developing an effective project implementation mechanism to achieve convergence with other programs. The institutional arrangement is further described in Annex 2 of the PAD.
27. **Implementation arrangements:** Overall project implementation is the responsibility of the Ministry of Agriculture (MOA). Since the institutional capacity of MOA is limited and special skills are required to implement the complex project activities, the project will draw expertise from the Ministry of Irrigation, Water Resource and Disaster Management (MIWRDM), Department of Agriculture (DOA), Department of Agrarian Development (DAD) and Irrigation Department (ID), as well, and acquire outside expertise, including consulting services. The day-to-day management and operation of the project is the responsibility of the Project Management Unit (PMU), headed by a Project Director (PD) appointed by MOA and assisted by national level Deputy Project Director's offices in MIWRDM and MSPCLG as well as provincial level Deputy Project Director's offices. The project will give attention to institutional coordination across departments, agencies, and strategic partners involved in the implementation of project activities. Specifically, as the MoA has an existing PMU under the ASMP, core functions such procurement, FM and safeguards would maximize the use of existing capacity. Overall project oversight is the responsibility of the National Project Steering Committee (NPSC), established in the Ministry of National Policies and Economic Affairs (MNPEA) and chaired by its Secretary. The main responsibility of the NPSC is to provide strategic guidance for the implementation of the project and to act as the interface between the central and provincial institutions. The NPSC also approves the annual work program and budget for the project, endorses the working arrangements with strategic partners, and is briefed by the Bank (and the



PD) on the outcomes of implementation support and review missions carried out with the Bank team at least biannually.

28. The PMU is responsible for ensuring that: (i) all project activities are planned, financed and implemented as per the project annual work program and budget, (ii) project implementation is in line with operational guidelines of the Project Implementation Plan (PIP), (iii) project procurement and financial management activities are carried out in timely manner as per the World Bank's Procurement for IPF Borrowers (2016), the project fiduciary manuals and the procurement plan, and (iv) social and environmental safeguards applicable to the project are fully complied with. The PMU is also responsible for monitoring project activities, preparing the quarterly and annual project progress reports, and ensuring that all reports (including financial reports) are submitted to the World Bank in timely manner.

F. Project location and Salient physical characteristics relevant to the safeguard analysis (if known)

The proposed project will be implemented in 11 districts in the dry zone climate vulnerability hot spots, covering at least 5 major watersheds. The mean annual rainfall is under 900mm (much of it being received during the northeast monsoon season from November to January) and mean annual temperature ranges between 28°C to 32°C. Droughts that persist for more than three months are common. It has a climax vegetation of dry evergreen forest and moist deciduous forest, with forests giving way to a stunted, shrubby, drought-tolerant vegetation in its driest parts. The forests found in most parts are secondary vegetation, which developed after hundreds of years of repeated clearing and cultivation. The natural vegetation has adapted to the annual change from flood to drought. The forests have been largely cleared for agriculture, timber or grazing, and many of the dry evergreen forests have been significantly degraded. Several protected areas have been established to protect some of remaining natural forests. Agriculture, settlements and other development activities have fragmented most of the forests giving rise to human-wildlife conflicts, particularly with elephants. Overall, about 30% of Sri Lanka's labor force is engaged in agriculture, and in the dry zone that has been the frontier for irrigation based development, directly or indirectly connecting entire population to agriculture. However, most farm households have multiple livelihood strategies as income from one source is insufficient for living. The predominant form of settlement in the project area is 'village' organized around a tank that is part of a cascade system. Although many of these small tank based villages have been incorporated into large and medium scale irrigated agricultural development schemes managed by the government, a substantial number of tank-villages that are rain-fed, persists. Most settlers in the project area have been granted land ownership and smallholdings predominate, and sub-division and fragmentation is common in tandem with the occurrence of large operational holdings – all devoted to food crop cultivation. Irrigation communities in the dry zone are connected with the government system of administration and management, including for irrigation management. Additionally, highland agriculture and illegal slash and burn agriculture also can be observed alongside small-scale inland fishery activities which take place in man-made tanks.



G. Environmental and Social Safeguards Specialists on the Team

Darshani De Silva, Environmental Safeguards Specialist
Bandita Sijapati, Social Safeguards Specialist

SAFEGUARD POLICIES THAT MIGHT APPLY

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	In order to mitigate potential environmental and social impacts that may be caused due to physical interventions and to ensure all negative impacts associated with project investments are avoided and/or mitigated, appropriate environmental and social management measures will be guided by the EAMF. The EAMF provides detailed analysis of the scale of due diligence required (such as environmental assessments, environmental management plans, etc.) for potential activities under the project. Additionally, a RPF has been prepared to identify and mitigate land-related social impacts under the Project. A ToR for the proposed Strategic Environmental Social Assessment (SESA) has also been included in the EAMF. SESA will inform the mini-watershed planning process to ensure broader watershed-level impacts are integrated into the planning process.
Performance Standards for Private Sector Activities OP/BP 4.03	No	There will not be any financing of private sector entities under this project and therefore this policy is not applicable for this project.
Natural Habitats OP/BP 4.04	Yes	OP4.04 applies to all types of natural habitats including natural forests. There is the possibility of impacting catchment forests due to dam rehabilitation activities.
Forests OP/BP 4.36	Yes	Project-supported agricultural activities will take place on existing agricultural areas and there will be no expansion into forest areas. No activities on commercial forestry is supported by the project. However, dam improvement work may impact some of the catchment forests. There will be watershed protection activities, which would have positive impact on forests. These impacts will be managed



		through the safeguard instruments that will be developed under OP 4.01 and OP 4.37.
Pest Management OP 4.09	Yes	Because of the standardization, intensification and diversification of agricultural activities under the project, changes in the application of pesticides for pest and disease control are foreseen. It is not clear at this point, if the project would finance the procurement of pesticides. A Pest Management Plan (PMP) that has been prepared under the Agriculture Modernization Project building on Integrated Pest Management (IPM) principles has been adopted by this project.
Physical Cultural Resources OP/BP 4.11	No	As of now, no project activities are expected in the vicinity of or affect physical cultural resources (PCR), as defined by OP 4.11. There are also no new construction of irrigation infrastructure planned. Mitigation measures if any activity takes place closer to PCRs and measures on PCR chance finds will be included as part of the mitigation measures defined in EAMF under the OP 4.01.
Indigenous Peoples OP/BP 4.10	No	There is no conclusive evidence/information available that establishes the presence of indigenous people in the project area.
Involuntary Resettlement OP/BP 4.12	Yes	The project will support civil works and other activities associated with construction, rehabilitation and reconstruction of small-scale market infrastructure, tank systems, water harvesting structures, irrigation schemes, etc. At present, these activities are envisaged to take place on existing canals and schemes or land belonging to individual farmers, and the need for taking private land under the project is not expected. However, there may be need for additional land, albeit minimal, for catchment area treatment, reestablishment of canal reservations, and rehabilitation/reconstruction of irrigation schemes. Further, there may be encroachers or others using the land necessary for the civil works thus requiring adequate mitigation measures to be put in place during project implementation. Accordingly, a Resettlement Policy Framework (RPF) has been prepared in accordance with OP/BP 4.12. Further, to support the mini-watershed planning process, a ToR for the proposed Strategic Environmental Social Assessment (SESA) has also been included in the EAMF.



Safety of Dams OP/BP 4.37	Yes	The project plans to improve and rehabilitate small dams and the EAMF will include the process to be adopted on safety of dams including required expertise under the OP/BP 4.01. irrigation schemes to be reconstructed/rehabilitated would entail minor works to improve existing capacity of the tanks to ensure the cascade system functions efficiently. The Dam Safety and Water Resources Management Project financed by the World Bank has already rehabilitated most of the larger tanks and their respective dams and has also set up dam safety panel to monitor the interventions and operations. They will continue to provide guidance to the decisions that will be taken on this project. All the requirements applicable to the project will be identified early during the implementation stage so that all the necessary plans and organization set-up are completed on time.
Projects on International Waterways OP/BP 7.50	No	The proposed project activities do not have any impacts to the international waterways and therefore this policy is not triggered.
Projects in Disputed Areas OP/BP 7.60	No	There are no disputed areas where project interventions are undertaken and therefore this policy is not triggered.

KEY SAFEGUARD POLICY ISSUES AND THEIR MANAGEMENT

A. Summary of Key Safeguard Issues

1. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts:

The project area covers hot spot areas spanning Ampara, Batticaloa, Trincomalee, Kilinochchi, Mullaitivu, Anuradhapura, Polonnaruwa, Puttalam, Kurunegala, Hambantota and Moneragala Districts in Eastern, Northern, North Central, North Western, and Uva Provinces. The first stage of the Project (2018-2021) will cover three Hot Spot Areas, whereas the second stage of the project (2020-2022) and third (2022-2024) will cover the balance eight districts. However, the exact locations for the specific interventions under the Project have not been identified, and the selection of activities will be determined only during implementation.

The project is classified as an Environmental Category B. It is expected to bring positive environmental and social benefits to the project areas through the scale-up of climate-resilient agricultural technologies and farming practices that help improve soil health, water-use efficiency and crop products, catchment area treatment to promote more efficient use of surface water and more sustainable use of groundwater for agriculture and development of waterbody capacity of climate hotspots, and overall improvement in the productivity of small-holder farmers. Components 1 and 2 may involve physical activities that could have adverse environmental and social impacts if these aspects are not



fully integrated into hot-spot area development plans and negative environmental and social risks are not identified and mitigated properly. Likewise, some activities supported under the project, such as small scale market infrastructure, construction and rehabilitation of irrigation canals, water storage facilities, etc., are likely to cause social risks and impacts, including land acquisition, impacts on livelihoods, loss of assets, etc. Although the project activities will be confined to rehabilitation of existing infrastructure and support to existing farmlands, some of the project districts consists of known physical cultural resources that can be impacted during works carried out under the Project.

The promotion of climate smart agriculture systems and related value chains under the project could also lead to changes in the application of pesticides for pest and disease control. At present, project-supported climate-smart agricultural activities are envisaged to take place on existing farmland, and no expansion or creation of new agriculture systems into fragile habitats is foreseen. Likewise, the project will bring improvements to watershed protection and promote agricultural practices that are expected to reduce pressure on natural habitats and the likelihood of encroachment into sensitive ecosystems. However, some activities may negatively impact natural habitats because of the proximity of project activities, such as the construction or upgrading of rural infrastructure. The project plans to undertake catchment treatment as part of village-level watershed plans to make them more climate resilient and, which may bring positive impacts on natural forests in the upper catchment areas due to additional protection measures. Such areas that require additional protection related activities are expected to be identified through SESAs.

Some negative impacts to forests are expected during tank rehabilitation work and while the project will primarily support the increase in the storage capacity of tanks through removal of excess sedimentation and establishment of mechanisms to reduce future sedimentation, some inundation of forests may still be possible, particularly in those areas where small tanks have been abandoned and natural forest regeneration has taken place on the tank bed.

2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area:

Based on the available information, no potential indirect negative environmental or social impacts are expected under the project. The project interventions will spread across 11 hotspot areas where the nature/scope of future activities is presently not known. Regardless, the SESA proposed to be carried out during implementation for each hotspot will help in identifying any indirect and/or long-term impacts of future activities and mitigating such impacts as part of project interventions.

3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts.

Alternatives to help avoid or minimize adverse impacts can be considered only during implementation once the project area and the specific activities are known. In principle however, the EAMF and the RPF include measures that need to be adopted in order to avoid or minimize adverse impacts. For instance, a 'negative list' has been prepared under the EAMF which among others indicates types of sub-projects that will not be financed under the project (e.g., activities that involve significant conversion or degradation of critical natural habitats, activities that would increase human-wildlife conflict, construction of large new infrastructure within or directly adjacent (in buffer zones) to protected areas, etc). Likewise, to avoid impacts of land acquisition, the RPF indicates that to the extent possible, sub-project activities will be carried out in the existing footprint of the infrastructure facility, utilize public land or land that is voluntarily donated, and only in exceptional basis will there be acquisition of private land under the Project.

4. Describe measures taken by the borrower to address safeguard policy issues. Provide an assessment of borrower



capacity to plan and implement the measures described.

An Environmental Assessment and Management Framework (EAMF) has been prepared to guide the screening of activities for physical investments, technical assistance, project supported-advisory, and policy support interventions and resulting implementation from an environmental perspective and mitigation actions to manage their environmental impacts. The EAMF defines the screening and decision-making process based on the screening, the content, procedures and responsibilities for the preparation and implementation of individual sub-project Environmental Assessments (EAs) and Environmental Management Plans (EMPs) to address site-specific risks and impacts and subsequent monitoring and reporting requirements. The EAMF also includes sectoral environmental management guidelines for the subsectors of agricultural processing, which will be applicable under the matching grant program. To ensure impacts to natural habitats are mitigated, the EAMF prescribes proper due diligence mechanisms, including relevant preventive and mitigation measures to protect local ecosystems and habitats to be included in the respective sub-project EMPs with special attention given to ensure risks and impacts due to human-elephant conflict are mitigated where such conflicts exist and using successful co-existence models that already have been demonstrated within the country. In order to ensure negative impacts to forests are minimized, the EAMF includes screening criteria and relevant mitigation measures. In addition, a separate Pest Management Plan (PMP) prepared under the Agriculture Modernization Project developed based on Integrated Pest Management (IPM) principles has been adopted by this project.

Likewise, the RPF sets out principles and guidelines to identify and assess the potential social impacts and risks, prepare mitigation plans as part of sub-project preparation, institutional arrangements and processes to be followed for the Project. This includes: (i) principles and procedures for screening and assessing impacts; (ii) the criterion and due diligence processes based on risks, including the provisions for entitlements and eligibility criteria; (iii) guidelines for preparing time-bound action plans to ensure compliance with WB's OP 4.12 on Involuntary Resettlement and national regulations relating to land acquisition; (iv) institutional arrangements for implementing resettlement action plans; (v) guidance for public consultation process and disclosure of safeguard documents; (vi) mechanisms for grievance redress, monitoring and evaluation of process and outcomes; and (vii) responsibilities of the GoSL and WB in relation to the preparation, implementation and progress review of social safeguards documents for the various CSIAP sub-projects.

In addition to the EAMF and the RPF, as part of hot-spot area development, Strategic Environmental and Social Assessments (SESAs) will be undertaken to be integrated into the village-level plans. All irrigation infrastructure related interventions require a screening to be included in the SESA to verify whether upstream medium to large scale dams are present and connected hydrologically and to assess their dam safety status and, if needed, outline follow-up actions. If the presence of upstream and hydrologically connected dams is confirmed and these have not been rehabilitated or strengthened and have dam safety implications, the project will undertake an inspection and evaluation of the safety of the dam, its appurtenances, and its performance history, and a review and evaluation of the mandated dam owner's operation and maintenance procedures. A report will be provided on the review's findings, including recommendations for any remedial work or safety-related measures necessary to upgrade the existing dam to an acceptable standard of safety. Necessary dam safety measures or remedial work will be financed under the project. When substantial remedial work is needed, these will be undertaken, including recruitment of a competent professional to design and supervise the work, and the Dam Safety Panels established under the Department of Irrigation and Mahaweli Authority of Sri Lanka will provide the guidance and continuous due diligence as necessary. As part of SESAs, physical cultural resources will be documented, and the EAMF includes screening criteria to ensure sub-projects will not produce any negative impacts to such resources. The EAMF also includes procedures to be adopted during a chance find.



In terms of capacity, the Ministry of Agriculture has recently been exposed to world Bank-financed Project while the Irrigation Department has two ongoing operations supported by the Bank. In addition, some of the provincial councils (e.g., Northern and Eastern) have been involved in World Bank financed operations. However, a comprehensive capacity building program for implementation of safeguards instruments prepared under the Project as well as the social and environmental management within the sector, will be prepared during implementation.

5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people.

The primary key stakeholders are smallholder farmers, producer organizations, productive alliances, agribusiness entrepreneurs, implementing organizations, government departments/units, including technical and managerial staff of participating agencies. The project will actively promote youth and women in all key project interventions to ensure that they are fully engaged in and also benefit from all project activities.

During the preparation of the safeguards instruments, consultations were held on 18 June 2018 in Anuradhapura and on 21 June 2018 in Colombo, and feedback received during these consultations have been included as part of project design and minutes of the consultations with details of the participants, have been included as part the RPF.

Additionally, the EAMF and the RPF also include consultation strategy which among others emphasizes that all stakeholders will be consulted in a culturally appropriate manner while preparing site-specific safeguards instruments as well as during implementation. The process of consultation will be documented and account taken of the results of consultations, including any agreed actions resulting from the consultation. The RPF and the EAMF also requires that all the social and environmental assessment documentation and site specific safeguards action plans (e.g., EMP, SIMP, RAP) will be made available to the public by the PMU through the project website and notices through media (as relevant), prior to start of civil works, and or tendering of works contract. The EAMF and the RPF have also been disclosed in-country as well as through World Bank's external website.

B. Disclosure Requirements

Environmental Assessment/Audit/Management Plan/Other

Date of receipt by the Bank	Date of submission for disclosure	For category A projects, date of distributing the Executive Summary of the EA to the Executive Directors
31-May-2018	15-Jun-2018	

"In country" Disclosure

Resettlement Action Plan/Framework/Policy Process

Date of receipt by the Bank	Date of submission for disclosure
31-May-2018	15-Jun-2018



"In country" Disclosure

Pest Management Plan

Was the document disclosed prior to appraisal?

Yes

Date of receipt by the Bank

31-May-2018

Date of submission for disclosure

15-Jun-2018

"In country" Disclosure

If the project triggers the Pest Management and/or Physical Cultural Resources policies, the respective issues are to be addressed and disclosed as part of the Environmental Assessment/Audit/or EMP.

If in-country disclosure of any of the above documents is not expected, please explain why:

C. Compliance Monitoring Indicators at the Corporate Level (to be filled in when the ISDS is finalized by the project decision meeting)

OP/BP/GP 4.01 - Environment Assessment

Does the project require a stand-alone EA (including EMP) report?

Yes

If yes, then did the Regional Environment Unit or Practice Manager (PM) review and approve the EA report?

Yes

Are the cost and the accountabilities for the EMP incorporated in the credit/loan?

Yes

OP/BP 4.04 - Natural Habitats

Would the project result in any significant conversion or degradation of critical natural habitats?

No



If the project would result in significant conversion or degradation of other (non-critical) natural habitats, does the project include mitigation measures acceptable to the Bank?

NA

OP 4.09 - Pest Management

Does the EA adequately address the pest management issues?

Yes

Is a separate PMP required?

Yes

If yes, has the PMP been reviewed and approved by a safeguards specialist or PM? Are PMP requirements included in project design? If yes, does the project team include a Pest Management Specialist?

OP/BP 4.12 - Involuntary Resettlement

Has a resettlement plan/abbreviated plan/policy framework/process framework (as appropriate) been prepared?

Yes

If yes, then did the Regional unit responsible for safeguards or Practice Manager review the plan?

Yes

OP/BP 4.36 - Forests

Has the sector-wide analysis of policy and institutional issues and constraints been carried out?

NA

Does the project design include satisfactory measures to overcome these constraints?

NA

Does the project finance commercial harvesting, and if so, does it include provisions for certification system?

No

OP/BP 4.37 - Safety of Dams

Have dam safety plans been prepared?

No

Have the TORs as well as composition for the independent Panel of Experts (POE) been reviewed and approved by the Bank?

Yes

Has an Emergency Preparedness Plan (EPP) been prepared and arrangements been made for public awareness and training?

No

The World Bank Policy on Disclosure of Information



Have relevant safeguard policies documents been sent to the World Bank for disclosure?

Yes

Have relevant documents been disclosed in-country in a public place in a form and language that are understandable and accessible to project-affected groups and local NGOs?

Yes

All Safeguard Policies

Have satisfactory calendar, budget and clear institutional responsibilities been prepared for the implementation of measures related to safeguard policies?

Yes

Have costs related to safeguard policy measures been included in the project cost?

Yes

Does the Monitoring and Evaluation system of the project include the monitoring of safeguard impacts and measures related to safeguard policies?

Yes

Have satisfactory implementation arrangements been agreed with the borrower and the same been adequately reflected in the project legal documents?

Yes

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APPROVAL

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