



# Project Information Document/ Integrated Safeguards Data Sheet (PID/ISDS)

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Concept Stage | Date Prepared/Updated: 13-Feb-2019 | Report No: PIDISDSC26567



**BASIC INFORMATION**

**A. Basic Project Data**

Country Sri Lanka	Project ID P163742	Parent Project ID (if any)	Project Name Climate Smart Irrigated Agriculture Project (P163742)
Region SOUTH ASIA	Estimated Appraisal Date Aug 28, 2018	Estimated Board Date Mar 07, 2019	Practice Area (Lead) Agriculture
Financing Instrument Investment Project Financing	Borrower(s) Democratic Socialist Republic of Sri Lanka	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.

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

**SUMMARY**

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

**DETAILS**

**World Bank Group Financing**

International Development Association (IDA)	125.00
IDA Credit	125.00

**Non-World Bank Group Financing**

Counterpart Funding	15.00
Borrowing Agency	10.00
Local Beneficiaries	5.00



Environmental Assessment Category

B - Partial Assessment

Concept Review Decision

Track II-The review did authorize the preparation to continue

Other Decision (as needed)

## B. Introduction and Context

### Country Context

**Sri Lankan economy is progressing towards strengthening macroeconomic and financial stability.** Sri Lanka is a lower middle-income country (US\$3,835,2016) with a total population of 21.2 million people. Following thirty years of civil war that ended in 2009, Sri Lanka's economy grew at an average 6.2 percent during 2010-2016, reflecting a peace dividend and a determined policy thrust towards reconstruction and growth; although there were some signs of a slowdown in the last three years. The economy is transitioning from a previously predominantly rural-based economy towards a more urbanized economy oriented around manufacturing and services. The Government envisions promoting a globally competitive, export-led economy with an emphasis on inclusion. The country has made significant progress in its socio-economic and human development. Social indicators rank among the highest in South Asia and compare favorably with those in middle-income countries.

**Despite Sri Lanka's remarkable achievements in poverty alleviation, Sri Lanka continues to face development challenges.** The economic growth has translated into shared prosperity with national poverty headcount ratio declining from 15.3 percent in 2006/07 to 6.7 percent in 2012/13. Much of the poverty reduction was driven by the reduction in rural poverty. Extreme poverty is rare and concentrated in some geographical pockets in Northern, Eastern and Uva Provinces; however, a relatively large share of the population subsists on little more than the extreme poverty line. The country has comfortably surpassed most of the MDG targets set for 2015 and was ranked 73rd in Human Development Index in 2015. To address the above challenges, the Government of Sri Lanka (GOSL) through its four-year Public Investment Programme (FY 2017 – 2022) put forward an ambitious goal of achieving one million employment generation, enhance income levels, develop rural economies and ensuring land ownership.

**Enhanced investment in farm and non-farm sectors is required for Sri Lanka's sustained economic growth, rural transformation and poverty reduction.** Indeed, GOSL acknowledges that sustaining an annual GDP growth rate of 6.6 percent or more will require a greater focus on agriculture, improved integrated water resources planning, governance, development and management, and greater resilience. GOSL is pursuing multiple initiatives such as National Food Production Program, Establishment of Agricultural Mega Zones, Strengthening of Value Chains, Developing Trans-basin Diversions, Rehabilitation of Feasible Existing Reservoirs, Protection of Watersheds, and Establishing Water Allocation Mechanisms to boost efforts to increase agriculture and water productivity, efficient use of its scarce water resources, and incentivizing private sector investment in these areas for economic growth and shared prosperity. Sri Lanka is well endowed with natural resources that are an important source of income and provide critical input into the country's



economic development. Even though the agriculture sector's share of GDP has declined significantly over the last two decades, from about 27 percent in the 1990's to less than 10 percent in 2014, around one third of the population remains dependent on agriculture as a major source of income, with 30 percent of the country's labor force employed in the sector. As such, GOSL has now placed agriculture sector development and water resources management at the forefront of its development agenda.

**GOSL has shown commitments to transform the agriculture sector.** Income growth and urbanization are changing consumer demand for food commodities to higher value agricultural food, including fruits, vegetables, meat and dairy product. The shift to high value commodities and opportunities in post-harvest management highlight the potential for increased commercialization, job creation and income growth in irrigated agriculture. Agriculture has great development potential in Sri Lanka that can be harnessed for growth and poverty reduction through higher incomes and for improved human development outcomes through agriculture's linkages to nutrition. More than two-third of the country's poor live in rural areas and their chance of getting out of poverty depends on the performance of agriculture and allied rural sectors. As a middle-income country in an economically strong region, farmers can capitalize on growing domestic consumer demand for diversified, healthier and higher-valued foods and take advantage of the country's proximity to fast growing neighboring markets.

#### Sectoral and Institutional Context

**Sri Lanka's agriculture sector is at critical junction now.** Sri Lanka has been undergoing a structural transformation with agriculture's share of GDP declining to 8 percent. But agriculture's share of total employment has remained steady at 27 percent, indicating that labor migration out of the sector has been slow (reflecting absence of a vibrant urban job market and structural constraints). Importantly, agriculture is performing well below its potential. Productivity growth in agriculture itself and the transition to higher quality and more diversified employment within the agriculture sector and along value chains has been slow. Value chain development is driven by private sector investors, but progress has been at a limited scale. Low productivity of farming operations is stemming out from inefficient markets, absence of a commercial orientation, poor quality of rural infrastructure, inadequate research and extension, unclear land rights, inadequate supply of seeds, fluctuation of product prices, and effects of climate change. There is growing recognition that long-term business success is tied to healthy communities and ecosystems while working in landscape partnerships with innovative financial instruments can help them address critical issues that go beyond their immediate supply chains.

**With rice self-sufficiency secured, a consensus has recently emerged within government that the country should capitalize more strategically on the opportunity to diversify the production structure out of the relatively low value food crops and move towards high-value agriculture and promote agricultural exports.** This structural shift is critical to sustain income growth going into the future, accelerating poverty reduction and re-reversing the trend in increasing inequality. Since most of the fruits and vegetables not only generate higher income as compared to rice but demand more intensive labor input, higher levels of technology input, better crop management, and investments in post-harvest, marketing, and better organized value chains overall, there is also significant potential for employment growth in agriculture. This shift would imply a structural shift towards a more high-value production structure, agro-processing and value addition activities, and increased competitiveness.

**Agriculture in Sri Lanka, however, is a risk-prone and exposed to significant recurrent natural and market risks.** Price fluctuations and natural calamities frequently affect agricultural production and farmer income and raise concerns among policy-makers about Sri Lanka's food production capacity, aggregate food security, as well as among households raising concerns of household level food security, in particular at the level of poor subsistence farmers. Food price spikes are also of concern for the urban poor that spend a large share of their income on food and are vulnerable to agriculture production



risk. Finally, higher-valued agricultural commodities face even greater risks (especially market risks), creating additional disincentives farmers to diversify out of traditional low-value cereals. There is currently very little systematic understanding of the country's agricultural risk profile and how these risks affect food production and food security, and ultimately diversification. Apart from some small agricultural insurance pilots to transfer risk, agriculture risk management remains largely underdeveloped and risk preparedness is low.

**Climate change is expected to continue to impact the agricultural sector in general, but this will be especially acute for Sri Lanka's smallholder farmers.** The World Bank-CIAT Climate Smart Agriculture (CSA) country profile for Sri Lanka (2015) points to critical vulnerabilities related to the overreliance on rain-fed systems, limited access to irrigation systems, and limited diversification (paddy rice comprises about 46 percent of the total harvested area). In addition, smallholder farmers in the highlands typically grow root and tuber crops, which are highly susceptible to a reduction of the diurnal temperature range that will likely negatively impact these crops' productivity. Droughts and floods are recurrent and are the most common risks to agricultural production. Multiple climate-related risks may cause far-reaching consequences for these farmers due to their limited access to improved technologies, such as watering and silage production techniques, drought/heat tolerant breeds, etc. There is a clear potential for the country to achieve Climate Smart Agriculture's "triple-wins" through: (i) sustainable increases in food & nutrition security and farm incomes (*Productivity*); (ii) enhanced resilience to impacts of climate change and variability (*Adaptation*); and (iii) reduced GHG emissions per unit of agricultural commodities produced, and increased carbon sequestration (*Mitigation*). Even though climate change will affect potential land and water productivities, existing levels of agricultural productivity in Sri Lanka are, in many instances, noticeably below their potential. Land productivity has generally stagnated over the past decade, with limited or no growth of crop yields overall, resulting in marginal agricultural productivity improvements relative to potential achievable yields (World Bank, 2016).

**Economic development is a central element of adaptation to climate change.** The best way to reduce vulnerability to (current and future) climate events is often through basic development. Overlaps in fact exist between 'development as usual' and 'adaptation activities'. Different categories of activities are identified within the adaptation-development continuum, ranging from interventions aimed at increasing coping capacity that resemble pure development activities to explicit adaptation measures which may either be a response to extreme events or represent a slow onset climate change adaptation process. Actions are needed for flood and drought risk mitigation. It is also seen that female-headed households are more likely to choose a less risky food crop portfolio, while farmers who operate under subsistence conditions tend to be the most risk-averse and larger households (which tend to have more farm labour and off-farm income) are more likely to choose risky food crop portfolio. Agricultural policies that promote smallholder access to weather insurance products are likely to increase farmer ability to take risks.

**Most of the existing water resources are already developed, and the scope for new large water development are limited due to technical, social and environmental considerations and funding limitations.** The appropriate way forward would be to make reasonable investments for rehabilitating dilapidated irrigation schemes, improving efficiency and productivity of the existing irrigation schemes together with investments for priority new water resources development. Also, in order to make irrigated agriculture a profitable business, it is necessary to put farmers first in safeguarding natural resources, building local access and capacity, enabling access to markets, and prioritizing research imperatives.

**Efforts at policy and legal reforms in the recent past have generated valuable lessons, and recent water planning has demonstrated the efficacy of integrated basin approaches and the use of modern water planning technology.** Most of the elements of integrated water resources management, such as river basin management, water allocation policy, environmental services, sharing of water shortages, are convincing concepts but their implementation remains extremely difficult given the nature of the country's political, social and cultural dimensions of water resources use. While wider



public consultation is important, wider public education and awareness is also important to avoid unreasonable criticism that could harm or stall reform that could bring genuine benefits and mitigate adverse impacts or conditions that may exist.

**Moving forward, innovation efforts should aim at improving the competitiveness of agriculture sector.** There are several factors constraining agriculture's performance: institutional fragmentation, low capacity, lack of strategic policy direction, policy distortions, and structural constraints. Rice self-sufficiency has been achieved, but it continues to be emphasized, limiting production choices at the farm level; inward looking policies since the mid-2000s create an implicit export-bias, taxing producers of exportable; poorly targeted fertilizer subsidies are a major fiscal drain (especially in the current difficult fiscal situation) and pose major negative environmental and health problems; underspending on productive infrastructure (in particular community-level irrigation facilities) and on R&D, together with low capacity to deliver extension support or linking demand oriented R&D to the field level, and marketing inefficiencies limit agricultural productivity growth; land fragmentation and absence of functioning land markets, and others. The development of agriculture will help increase rural income, reduce inequality, and through diversification help improve nutritional outcomes. It will support more rapid economic transformation that directs labor out of relatively unproductive primary agricultural production towards sectors of higher productivity, including agro-processing and other agri-business activities, as well as productivity growth and competitiveness within agriculture itself that will benefit those that remain engaged in agriculture. A climate smart mini watershed-based approach to agriculture will link productivity growth with enhanced resilience to shocks and a reduced climate footprint.

#### Relationship to CPF

The primary objective of the World Bank Group's Country Partnership Framework (CPF) for the period FY 2017-2020 identifies three Pillars for WBG engagement to assist Sri Lanka in addressing long-term strategic and structural development challenges and middle-income country agenda. The three central Pillars of the CPF8 objectives are:

1. Improving macro-fiscal stability and competitiveness to accompany the country's transition to become a more outward-oriented, competitive, globally integrated economy for the enhanced sustainability of the country's growth and the promotion of more and better-paying private-sector jobs for the bottom 40 percent.
2. Promoting inclusion and opportunities for all to support the government's objective to enhance the inclusiveness of the country's growth and development model. This will require strengthening education and training systems to deliver the skills needed for the advanced industrial and service sector activities of a globally competitive MIC, improving health and social protection pensions systems to address the challenges of the demographic transition, and improving living standards in the lagging regions.
3. Seizing green growth opportunities, improving environmental management, and enhancing adaptation and mitigation potential to improve the country's capacity to address and mitigate the environmental impacts of the economic transformation and better manage and govern its natural resources and assets for sustainability and growth.

The proposed project is aligned with all three pillars of the CPF and with Bank's Climate Change Action Plan (CCAP) in the South Asia Region (SAR). It also aims at contributing significantly to the Government's efforts to increase production and productivity as well as alleviate extreme poverty and malnutrition. The Government's national program for food production aims at increasing agriculture production and productivity with the overall purpose to reduce dependency on food imports and improve the sector's value added and its contribution to the national economy. The proposed project seeks to reinforce the reengagement of the Bank in the agriculture sector started through the on-going Agriculture Sector



Modernization Project. The proposed project is based on a multi-sectoral approach and will require close collaboration across Bank's Global Practices and Units (Agriculture, Water, Trade & Competitiveness, Climate Change and Disaster Risk management) in the design and implementation.

The Government has requested Bank support for a climate-smart irrigated agriculture project in FY18, primarily in response to the recent prolonged drought conditions across the country that have reduced rice harvest by about 50 percent in the last rainy season and an expected 50 percent during the dry season. While the entry point is the rehabilitation of small-irrigation tanks and infrastructure, there is potential to introduce and mainstream high-efficiency irrigation agriculture and a more risk-based innovative approach to managing climate and price risks and volatility through various coping and risk transfer instruments. National Food Production Programme, Establishment of Agricultural Mega Zones, and Strengthening of Value Chain Development are some of the major activities initiated by the GOSL to develop a climate-resilient agriculture sector, enhance agricultural productivity, secure household food and incomes, and contribute to intended Nationally Determined Contribution (COP21).

A policy note was prepared by the Bank to support GOSL in identifying policies and instruments to deliver on its Nationally Determined Contribution (NDC) as it relates to agriculture development and water resources management and create a solid foundation for the understanding and management of climate change risk. It outlines a comprehensive analysis and identification of main climate change risks and solutions, including roles of different stakeholders in risk management; an institutional framework to operationalize the risk management strategy; and list of priority interventions and policy reforms needed to create an enabling environment for implementation. Trans basin interventions initiated by ADB along with the minor irrigation study commenced by JICA in North Central Province and interventions of FAO, UNDP and EU will also inform this project design.

### **C. Proposed Development Objective(s)**

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

### **Key Results (From PCN)**

PDO level indicators:

1. Number of direct project beneficiaries reached with agricultural assets or services, disaggregated by gender (CRI)
2. Increased average farmer income to respond to external shocks, disaggregated by gender
3. Number of farmers adopting climate-resilient agriculture technologies or practices, disaggregated by gender (CRI)
4. Increase in sale of raw and processed products and in technologies adopted by farmer organizations and Agri SMEs
5. Number of new jobs created through innovative agribusiness investments, disaggregated by gender

Project beneficiaries will include smallholder farmers, producer organizations, and agribusiness entrepreneurs who will benefit from improved and modernized irrigation, drainage and flood protection systems; adoption and dissemination of advanced technologies on high efficiency irrigated agriculture techniques and practices; agriculture diversification; and improved market access. Also, a large number of technical and managerial staff of participating agencies will benefit from the project through training and capacity building activities.

### **D. Concept Description**



## A. Concept

The project design is based on an integrated watershed-based development approach towards climate-smart irrigated agriculture with specific interventions related to irrigation and drainage management, improved on-farm water management, improved agriculture development, and improved connectivity of access road network. Given that Sri Lanka is vulnerable to climate shocks, the project design remains sensitive to agro-climatic conditions in the dry zone areas of Sri Lanka.

### 1. Description

The proposed project will be implemented in twelve poverty-stricken districts in five provinces in the dry zone and in climate vulnerability hot spot regions of the country, covering five mini watersheds with a project watershed area of over 272,000 ha and a population of over one million. The project approach will be based on the successful experiences of agriculture interventions in the South Asia Region and it results from a clear understanding with Ministry of National Policies and Economic Affairs that the country needs a comprehensive, long term and systematic approach to managing and coping with climate change and variability. In the past, responses to frequent climate events such as floods and droughts have yielded only limited results and such short-term approach did not significantly boost agriculture sector performance, prevent further deterioration of rural socio-economic fabric, or lead to increase in farmer income and prosperity. Therefore, a new paradigm to addressing these challenges in the agriculture and food system is essential. Even though the quality of the lands in the dry zone area is not poor, frequent floods, droughts and lack of reliable irrigation water supply has made it difficult for local cultivators to grow more than their subsistence requirements.

The proposed project intends to build upon this validated approach and successful experiences in Sri Lanka and intends to work within four components: (A) promote climate-resilient agricultural systems; (B) enhance climate-resilient value chain development; and (C) institutional development, knowledge and capacities; and (D) Project Management.

**Component A: Promote Climate-Resilient Agricultural Systems (US\$80 million).** The objective of this component is to build climate-resilience in agricultural production systems through a series of activities at farm level, complemented by interventions in mini watershed areas. This component will focus on (i) catchment area treatment, rehabilitation, safety of dams, rehabilitation/reconstruction of irrigation schemes, improved availability of water at farm level and improved access road network; (ii) scaling up the adoption of climate-resilient agricultural practices aimed at improving soil health and water use efficiency; and (iii) emergency response.

In line with the initiative of the GOSL in promoting a mini watershed as a participatory planning unit, this component will finance the development of at least 5 mini watershed plans, each covering a cluster of cascades and 10 to 15 villages and an area of about 50,000 ha. The project area covers Mullaitivu, Mannar, Vavuniya, Anuradhapura, Polonnaruwa, Batticaloa, Ampara and Moneragala Districts in Northern, North Central, Eastern and Uva Provinces. Selection of priority mini watersheds would be primarily driven by factors such as poverty levels, people affected by floods/droughts, extent cultivated under minor irrigation, water availability, farmer willingness, etc. A mini watershed is selected within a province, but some may cover two provinces. Mini watershed plans are comprehensive medium-term investment plans and local investment tools for planning and monitoring. They include a comprehensive resource mapping, a rapid gender responsive appraisal of stakeholders, mini watershed-wide hydrological models, feasibility studies, and participatory water budgeting while serving as a road map to inform on possible investments in irrigation, drainage, flood/drought mitigation measures, rural road network improvement, and water resources management. As part of the mini watershed planning process, Strategic Environmental and Social Assessments will be undertaken to address environmental and social impacts (including



cumulative and long-term impacts) at the mini watershed level. This component while assisting to scale up the adoption of technologies and practices aimed at maximizing water productivity and security at farm level, will also promote scaling up the adoption of climate-resilient agricultural practices to improve on-farm soil fertility and micronutrient management.

The emergency response sub-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. To trigger this component, the Government would need to declare an emergency, a state of a disaster or provide a statement of fact justifying the request for the activation of the use of emergency funding. Examples of such crises might include drought, severe weather events, and pests and diseases ravaging crops. No funds will be allocated to this sub-component. However, in case of emergency, funds can be re-allocated to this sub-component following a joint decision by the Bank and the GOSL. This sub-component would finance expenses on a positive list of goods, works, services and emergency operation costs required for emergency recovery.

**Component B: Enhance Climate-Resilient Value Chain Development (US\$10 million).** The objective of this component is to enhance climate resilience beyond farm gate and provide integrated end-to-end solutions in selected commodity value chains. This component will focus on (i) developing small holder inclusive value chains for climate-resilient agriculture commodities; (ii) technology adoption and overcoming constraints in the input supply and agricultural weather insurance in value chains; (iii) strengthening producer groups of small and marginal farmers; and (iv) improving food safety and nutrition security.

Selection of agricultural value chains for end-to-end solutions will be finalized by the PMU during project preparations. This component will support key actors in addressing the need for increasing the availability of seeds triggered by climate events, seed processing and storing. This component will provide a demand-driven matching grants facility up to a maximum of US\$100,000 per grant for preparation and implementation of feasible and viable business plans in post-production, storage facilities, value addition and processing in order to unlock the growth of agribusiness potential, in particular of entrepreneurs and young people through supporting existing demands for overcoming market failures in accessing financial resources for agribusiness investments in their own lands. It will also address malnutrition across the project area through promotion of diversified food production and improved knowledge and practices of food processing and consumption by farmers and rural households on making choices that can improve the nutritional status of their family.

This component will also promote entrepreneurial, nationally and globally competitive market-oriented, and financially sustainable Farmer Producer Companies to perform selected value-adding activities and deliver a range of services while consolidating or setting-up new business linkages with private sector. Capacity of small and marginal farmers will be enhanced in terms of organizational skills, business planning, and simple monitoring and evaluation. It will also support investor meets, liaison with commercial banks, provincial level workshops on agribusiness and technology, etc. for value chain linkages and development. Investor meets, liaison with commercial banks, provincial level agribusiness and technology meets, workshops, etc. will be also supported.

**Component C: Institutional Development, Knowledge and Capacities (US\$5 million).** The objective of this component is to ensure sustainability in the approach of building climate resilience through a long term adaptive management of agriculture, soil and water resources. This component will focus on (i) strengthening the capacity of existing institutions to design and deliver agro-technological and climate advisory services and extension; and (ii) promoting an evidence-based policy dialogue and consultations on effective water management and climate resilience.

Policy and analytical agenda planned to be carried out by the Agriculture Sector Modernization Project on technology,



trade policy, competitiveness, markets/value chains, structural constraints, land use, labour markets, mechanization, crop insurance and economy-wide modelling will be used for multi stakeholder dialogue and implementation on promoting climate resilience in irrigated agriculture under this project. Innovative, effective and efficient extension services with government and private sector collaboration would be also developed.

**Component D: Project Management (US\$5 million).** The objective of this component is to ensure overall project management, while ensuring smooth coordination of activity implementation by various agencies and strategic partners at Provincial level. This component will finance (i) the operating costs of the PMU and PPMUs and of different project executing agencies; (ii) the monitoring and evaluation of project activities; (iii) the communication of project activities to different audiences; (iv) ensure proper monitoring of environmental and social safeguard policies; (v) baseline study and conduct impact assessments of project activities; (vi) the hiring of staff, goods and consultant services, workshops, and training; and (vii) independent value for money monitoring and geotagging the assets created.

**Citizen Engagement:** The populations targeted in the citizen engagement mechanism of the proposed project will be local smallholder farmers and medium sized agribusiness owners receiving support to increase their yield/productivity and the commercialization of their products. The CE mechanism will assist the extension service and government officials in making more informed decisions about resource allocations, training and technology needs of farmers and agribusiness owners. Overall, the CE mechanism will enhance the successful implementation of the project and guide the government in preparing better programs for farmers. A detailed citizen engagement mechanism and grievance redressal mechanism will be elaborated during the preparation phase of the project and will be included in the project implementation manual.

**Gender.** The project design and approach will reflect the need for taking account of the gender dimension and risks associated with knowledge and technology transfer. Project will be designed to ensure that it provides equal opportunities for women to participate in project activities. Climate-resilient agricultural technologies will be screened to ensure that they are gender-neutral. Similarly, the identification of lead/contract farmers should be gender balanced. A comprehensive social assessment has been initiated as part of project preparation and is expected to result, among others, in a Gender Action Plan.

## SAFEGUARDS

### A. Project location and salient physical characteristics relevant to the safeguard analysis (if known)

The proposed project will be implemented in thirteen poverty stricken districts (Moneragala, Ampara, Batticaloa, Trincomalee, Polonnaruwa, Kurunegala, Puttalam, Anuradhapura, Vavuniya, Mannar, Kilinochchi, Mullaitivu and Jaffna) in five provinces (Uva, Eastern, North Western, North Central and Northern) in the climatically vulnerable hot spot regions of the country. 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.

Overall, about 30 percent 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 subdivision and fragmentation is common in tandem with the occurrence of large operational holdings – informal, leased or mortgaged seasonally or yearly – 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. Small-scale inland fishery activities take place in man-made tanks.

**B. Borrower’s Institutional Capacity for Safeguard Policies**

Overall, the project is expected to bring about net positive environmental and social benefits to the rural project areas by integrating sound environmental and social practices to agricultural activities, especially introduction of climate smart agriculture practices that would protect and reduce potential impacts to the environment due to agriculture development activities while also enhancing climate resilience, agricultural productivity and income levels of smallholder farming communities. The productivity enhancements in irrigated agricultural areas will bring positive changes to soil conservation, water management, pest management and watershed management. There is potential for human-wildlife conflict which needs to be mitigated. Further, the need for additional land-taking is also possible. The risks of exclusion due to political economy factors associated with agriculture policy reforms and the existing structures of farmer organizations and producer groups, are also significant.

All these issues and activities will require environmental and social due diligence as part of planning and implementation. Overall environmental and social impacts of the projects can be mitigated and therefore, the project is proposed as Environmental Category B. To support the identification environmental and social risks, and accordingly develop and implement measures to mitigate these risks, an Environmental Assessment and Management Framework (EAMF) comprising Pest Management Plan, and a Social Management Framework (SMF) comprising of a separate Resettlement Policy Framework, Citizen Engagement Plan and Consultation Framework, will be prepared. These instruments will include vulnerable groups, and participatory planning adopted for the project will be inclusive of all stakeholders.

Project activities will be implemented by the MoA and other (provincial & central) agencies. The MoA has experience implementing donor funded projects, including the Bank. A PMU will be established fully staffed with senior specialists including staff responsible for safeguards. At provincial level, there will be 5 PIUs, one for each Province. Each PIU is expected to include social and environmental officers responsible for field-level safeguard compliance and management. A capacity building needs assessment will be carried out and a training and capacity building plan will be developed once the implementation arrangements at the local level are finalized.

**C. Environmental and Social Safeguards Specialists on the Team**

Nadeera Rajapakse, Environmental Specialist  
Bandita Sijapati, Social Specialist

**D. Policies that might apply**

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	In order to mitigate potential environmental 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 management measures will be guided by an EAMF. The EAMF will provide detailed analysis of the scale of due diligence required (such as environmental assessments, environmental management plans, etc.) for potential activities under the project. Similarly, a SMF will be prepared to identify and mitigate social impacts. ToR for the proposed Strategic Environmental Social Assessment (SESA) will be included in 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	
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/BP 4.01 and 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) will be prepared building on Integrated Pest Management (IPM) principles.
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/BP4.11. There are also no new construction of irrigation infrastructure planned. Measures on PCR chance finds will be included as part of the mitigation measures defined in EAMF under the OP/BP 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	<p>The project will support civil works and other activities associated with rehabilitation and reconstruction of irrigation schemes, which may have social impacts. 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 SMF comprising of a Resettlement Policy Framework will be prepared in accordance with OP/BP 4.12. Based on the scope of impacts from the project, the RFP will either be a stand-alone document, or will be included as part of the Social Management Framework as a separate annex or a chapter.</p> <p>Since the project will focus on climatic hotspots spanning one or several mini-watersheds, a Strategic Environmental and Social Assessment (SESA) will be prepared to inform the village level watershed planning process. The SESA will help ensure that broader watershed-level impacts are integrated into the planning process for the village-level water shed plans as well as the Hot-Spot Area Development Plan.</p> <p>To guard against possible exclusion of 'vulnerable groups' from the project, a citizen engagement plan and the consultation framework prepared under the project will include vulnerable groups. Additionally, participatory planning adopted for the project will be inclusive of all stakeholders, including vulnerable groups.</p>
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 on-going 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 in the early project preparation 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.

### E. Safeguard Preparation Plan

Tentative target date for preparing the Appraisal Stage PID/ISDS

Feb 01, 2018

Time frame for launching and completing the safeguard-related studies that may be needed. The specific studies and their timing should be specified in the Appraisal Stage PID/ISDS

The EAMF, SMF, PMP and RFP are expected to be completed by January 31, 2018.

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**APPROVAL**

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**Approved By**

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