Project Proposal Template

1. Basic information

1.1 Peer-to-Peer Partnership number: *given by the Program coordinator*
1.2 Project title: **Agriculture Sector Modernization Project (**P156019)
Component 2: Productivity Enhancement and Diversification Demonstrations
1.3 Area:

- □ Budget management reforms, e.g. performance-informed budgeting
- □ Human resource management reforms
- □ Reforms to improve service delivery
- □ Reforms to improve inter-governmental relations
- □ E-government
- □ Strengthening of custom and tax collection agencies

1.4 Partner(s) information and contact details:

Name of partner institution from recipient country: **Ministry of Agriculture**	Name of partner institution from partner country:
Name of project leader:	Name of project leader 2:
Email:	Email:
Telephone number:	Telephone number:

1.5 Total cost: *estimated funding requested (US$ 58.63 million)*

2. Project description

2.1 Background and justification

Sri Lanka has a diverse natural resource base on which the country heavily relies upon to reduce rural poverty and ensure food security. Agriculture, including fisheries, is a major contributor to economic growth, the only source that provides adequate food to prevent hunger and starvation, and has continued to play a pivotal role in the Sri Lankan economy, providing employment to 28.5 percent of the labor force as of 2014. The shares of the agriculture sector are around 9.9% of the GDP and 25% of export earnings in the year 2014. About 32.8% of the rural population of the country are employed in agriculture for their livelihood, although around 70 percent of the country's population live in the rural areas and are indirectly affected by the sector. Sri Lankan agriculture largely comprises a food crop sector and a plantation (tea, rubber and coconut) sector. The food crops sector is largely made up of small scale farmers growing rice, vegetables, fruits and field crops. Agricultural productivity of the food crop sector had been stagnated over the last two decades. Farming in Sri Lanka is dominated by scattered small holdings, i.e. average size of a holding is below 1.0 hectare resulting problems of diseconomies of

scale and difficulty of mechanization in the face of increasing wages. Further, low profitability coupled with high cost of production (mainly due to high wage rate associated with scarcity of labor during cropping season and migrating of labor to industry and service sectors), low productivity coupled with low level of using modern technology in proper way due to lack of capital as well as not owning machinery which is not economical due to small farm size, and marketing problems also are major constraints. Another serious disadvantage faced by the farmers in the country is the heavy dependence on rain-fed agriculture (only 39% of the arable land is under irrigation).

In this context, the enhancing productivity and competitiveness of the food crops has become the major challenge in increasing food production in a sustainable manner and improving farm family income in order to ensure household food and nutritional security, and agriculture export earnings while at the same time conserving the natural resource base. Diversification and modernization of agriculture by introducing innovative technologies and linking to the value chain through back ward and forward linkages (agro based industries) can boost productivity and also help to generate farm employment, off-farm employment opportunities, and increase export earning and save forging exchange.

2.2 Contribution to the national development plan or the strategy of the recipient country's public administration

With rapid expansion of irrigation, substantial subsidy on fertilizer, government market support in rice, stipulations of Agrarian Services Act that favor rice cultivation, there is a policy bias towards rice cultivation. The development/importation of technology also has favored rice cultivation as labor use has been rapidly substituted by chemical cum machinery technology. Sri Lanka has produced around 15% more than the domestic requirement during last three years creating a glut in the domestic market. There is substantial tariff protection for Other Food Crops such as big onions, potato, chillies, green gram, and ground nut during their harvesting season. Commercial plantations of fruit crops are not abundant, and the marketing systems for fruits and vegetables are price inefficient and ineffective leading to substantial post-harvest losses, low income for farmers and other market players, low domestic consumer satisfaction, and inadequate export growth. The low agricultural productivity was associated with a number of underlying factors including low levels of technology adoption and modern management practices; lack of diversification into higher value marketable agricultural products; the existence of policies which have not been conducive to agricultural growth and investment; and infrastructure limitations which inhibit access to rural areas and market linkages. The Government has taken some positive steps recently to improve the food crop sector other than rice and promote exports.

In this context government has identified 14 crops in its National Food Production drive to increase the productivity and production to self-sufficiency level.

Expected productivity enhancement of some crops under National Food Production Programme, 2016- 2018 is shown below,

	Target productivity enhancement(Mt/ha)			
Crop	2015	2016	2017	2018
Rice	4.1	4.5	4.7	5
Maize	4	4.25	4.5	5
Green Graam	1.1	1.1	1.1	1.2
Soya	1.5	1.5	2	2
B,onion	16	19	20	20
Red onion	12	14	15	16
Potato	16	17	18	20

Inefficiency and ineffectiveness of market linkages, particularly the information between the end user and the farmer, has retarded the growth of value addition in domestic food crops sector and the procedures proposed in the National Food Production Programme needs to be further strengthened. Therefore, the proposed project will complement and supplement the National Food Production Programme 2016 – 2018.

2.3 Linked projects *(other national and international initiatives)*

The project would build upon the experience of a number of previous donor-funded initiatives that sought to improve productivity of agricultural produce.
European Union funded 'District Development project', implemented by FAO with the Ministry of Agriculture (from 2014 to 2017) Contribute to poverty reduction through agricultural development and provision of basic infrastructure and services of agriculture for vulnerable populations in Vavuniya, Mannar, Batticaloa and Ampara Districts and selected DS Divisions in Anuradhapura, Puttalam and Monaragala Districts.

The project on 'Strengthening the Agricultural Extension System through Agro-enterprise Development' was initiated in September 2010, and was implemented by the Department of Agriculture, with the financial and technical assistance of the Technical Cooperation Programme (TCP) of the Food and Agriculture Organization of the United Nations (FAO) in the districts of Anuradhapura, Polonnaruwa, Kandy, Matale, Nuwara Eliya, Badulla, Monaragala, Kurunegala, Puttalam , Polonnaruwa, Anuradhapura and Monaragala with the overall objective of contributing to food security by improving market access and increasing incomes of market-oriented farmers, the strategy used was building the entrepreneurial knowledge, skills and attitudes through the Farm Business School (FBS) concept.

In 2015 a three year project to enhance sustainable agricultural production and farm businesses, targeting 5,000 farmer HHs and related service providers in Kilinochchi and Mulaitive disticts was implemented FAO in conjunction with the Ministry of Agriculture with financial aistance from CIDA.
Also, there are several ongoing initiatives implemented by the Ministry of Agriculture through the Department of Agriculture to improve Productivity of agricultural production

which includes, IRRI sponsored projects on 'Rice research towards closing yield gaps', Establishment of a modern farming village for high quality and high productivity of rice with KOPIA funds, Establishment of organic villages, Development of organic farming technologies, Monitoring of toxic trace metal in organic vegetable and soil, Establishment of organic certification system and updating Agriculture information technology network sponsored by AFACI.
The proposed project will supplement / complement these and many other initiatives in identified geographical areas.

3. Overall objective(s)

The overall objective of the project is to promote the diversification of agriculture production based on comparative advantage; improvements in value addition and market exploration for revenue generation; and improvements of rural livelihoods through better integration of small holder farmers into modern agricultural value-chains in line with the government's new sector programme and policies.

4. Objective of the project

To support small-holder farmers to produce competitive and marketable commodities, improve their ability to respond to market requirements, and move towards increased commercialization.

5. Expected outcomes.

The expected outcomes of this component would include:

(a) Increased capacity of smallholder producers to respond to business and market requirements;

(b) Increased productivity in primary production of key marketable commodities, supporting and in line with the Government's National Food Program 2016-2018;

(c) The production infrastructure upgraded to sustain introduced innovative technology packages; and

(d) Improved capacity of government institutions to respond to the demands and needs of the agricultural sector.

Outcome 1. Increased capacity of smallholder producers to respond to business and market requirements; (Total Cost US$ 6.20 million, IDA US$ 6.20 million),

The project would support knowledge building and capability improvements of smallholder farmers and the establishment of farmer organizations to help them to respond better to market opportunities through rapid market research, local round table meetings with farmers and representatives from agribusiness and traders, and technical advice to assess potential market opportunities identify the existing constraints, devise potential solutions to address them, and determine the corresponding capacity building needs.

An appropriate combination of technical, business, and operational training, will be provided using the approach of **Farmer Field Schools** and **Farm Business Schools**. Training of trainers would be conducted to build the capacity of local service providers and lead farmer organizations in providing extension and business development services to farmers.

Output 1.1. Individual farmer capacity building implemented through a comprehensive training program by a selected national training service provider in coordination with the national agricultural extension service system.

The public extension system provides a framework through which farmers are organized into functional groups in order to gain access to production resources such as credit, input, and marketing services and information. However, most farmer groups tend to be informal and lack the requisite marketing and business skills to ensure that economic benefits can be assured by their members. Considerable support is needed to develop these groups and organizations as viable and sustainable entities. Among farmers groups that have been established, their capacities need to be reinforced, particularly with respect to the provision of business oriented services for their members and to strengthen farmer-buyer linkages. Effort is needed to formalize relatively informal organizations and ensure that they are professionally sound and well-functioning.

Activity 1. Development of detailed curricula building on existing elements of curricula under the theme of farming as a business.

Sub-activity 1.1. Preparation of training modules on markets and marketing understanding,

Sub-activity 1.2. Record keeping at farm levels,

Sub-activity 1.3. Preparation of crop and livestock budgets (calculation of production costs and cash flows),

Sub-activity 1.4. Use of modern communication technology (SMS, internet, IT based systems, etc.),

Sub-activity 1.5. Farm level risk assessment and mitigation,

Activity 2. Preparation of a roll-out strategy for up to 600 villages;

Activity 3. Training of some 10 master trainers and some 200 Trainers of Trainers,

Activity 4. Rolling out the training to villages across the country, using a farm business school approach with a combination of class-room and on-farm training.

Output1.2. Farmer Producer Organization training and development implemented through contracted national service providers

Activity 1. Rapid value chain and farmer producer organization assessments to prioritize the key value chains where farmer organization and joint action is critical for commercialization and value addition.

Activity 2. The stock taking of existing farmer producer organizations, their size functions and bottlenecks for business development

Activity 3. Determination of corresponding capacity building needs through assessment of potential market opportunities; identifying existing constraints and devising solutions to address them,

Activity 4. a training needs assessment of existing and potential farmer producer organizations;

Activity 5. development of detailed curricula, including training modules on group formation and registration, legal requirements, farmer producer group management (meetings, record keeping, financial planning, market and marketing understanding), commercial lending, use of modern communication technology (SMS, internet, IT based systems, etc.), etc.;

Activity 6. preparation of a roll out strategy for reaching out to some 500 farmer producer groups;

Activity 7. training of some 10 master trainers and some 200 Trainers of Trainers;

Activity 8 rolling out the training to some 500 existing and new farmer producer organizations;

Activity 9. provision of basic office equipment (computer, office furniture) for farmer producer organizations;

Activity 10. formal legal registration cost.

The activities will be supported by organizational development specialists (facilitators) to be placed in the provincial agricultural offices. It is expected that most of the trained and established farmer producer organizations would become eligible for application under the Matching Grants Program under Component 1.

Outcome 2. Productivity improved by diversification, commercialization, more sustainable and climate resilient production patterns (high value products, new varieties, technology, soil, water, fertilization etc.) through the introduction, demonstration, and scale-up of innovative agriculture technology packages that are not yet available or practiced by smallholder farmers. (Total Cost US$ 33.44, IDA US$ 33.44 million),

> The project will support 7 agriculture technology demonstration parks in the selected districts of Jaffna, Mullaitivu, (Northern Province), Batticaloa (Eastern Province), Anuradhapura, Polonnaruwa (North-Central Province), Monaragla (Uva Provinces) and Matale (Central Province) which have been identified based on high poverty headcounts and agriculture development potential.

To take advantage of specific expertise or approaches that are available among non-state actors but not within the government system, locally-based private operators or service providers, including enterprises and suitable non-governmental organizations, would be invited through project advertising to submit proposals for the introduction, pilot testing, and operationalization of new and innovative technologies, and training following a 'turn-key' approach. The approach would focus on topics requiring innovative solutions not necessarily obvious to the local communities.

Based on a selection and technical review process, private operators and NGOs, would be contracted to design, implement, operate and hand-over the technology demonstration parks.

Selection criteria for private sector operators or services providers would include, for example, the following: (a) there is a clear innovative element involved; (b) the activity is market-oriented and expected to produce a financial return to farmers; (c) **the activity cannot be implemented by the existing public extension service**; (d) a demonstration effect is expected which could lead to replication in other locations; and (e) Sri Lanka-based private sector institutions, or the local representative in case of institutions based outside the country, or domestic NGOs can implement the activity. To ensure technology and knowledge transfer to the public extension service, it will be a requirement that government extension staff is fully involved in the activity, through a partnership arrangement that would be specified in each respective contract between the project and the private service provider. The detailed implementation modalities would be specified in the Operations Manual.

Output 2.1 Establishment of Technology parks with specific interventions in partnership with private sector/NGOs/Service Providers, etc to strength GAP through Turn-key approach

These agriculture technology demonstration parks will be established to demonstrate entire value chain approaches for selected crops, involving: farmer mobilization and training, agriculture production, post-harvest handling and/or processing, and marketing. Each park will include at least eight to 10 entire villages. The number of villagers could be higher depending on the nature of the technology package and the necessary scale to support viable processing units or marketing channels. In each district, these parks would seek to establish profitable farmer companies at a larger scale; support employment of local communities; improve food security and diversification; integrate food production and supply chains vertically; and bring most advanced modern technologies and best practices to the value chains. This would also include training on technologies, business operation, and marketing. Examples of such technology demonstrations would, for example, include: fruits and vegetables production and marketing systems combination with sprinkler and drip irrigation systems, organic farming, improved homestead gardening combined with greenhouse and tunnel cultivation, fertigation technologies, diversification of rice production systems, and various small-scale processing technologies and others. Technology demonstrations could also include other field crops and rice diversification approaches.

Output 2.2 Involving international service providers through international service Conference.

The project will also support the organization of two international technology conferences in the first and second year of project implementation, inviting international service providers to discuss and present their agricultural development models successfully implemented and demonstrated in similar agro-ecological and socio-cultural environments. Based on the outcome of these conference, suitable service providers will be invited to prepare detailed proposals for the introduction, pilot testing, and operationalization of new and innovative technologies, and training following a 'turn-key' approach. The approach will focus on topics requiring innovative solutions not necessarily obvious or yet well-known to the local farming communities or farmer organizations or within the government system. Based on a selection and technical review process, private operators/service providers will be contracted under the project to design, implement, operate and ultimately hand-over the technology demonstration parks to the participating communities and farmer producer organizations.

To ensure technology and knowledge transfer to the public extension service, service providers will be required to involve government extension staff and Agrarian Services Departments in the activity, through partnership arrangements that would be specified in each respective contract between the project and the

service provider. The detailed implementation modalities of the technology demonstration approach are described in the Operations Manual [to be finalized by negotiations]

Outcome 3. The production and market infrastructure upgraded to sustain introduced innovative technology packages *(US$ 14.71 million, IDA US$ 14.71 million)*

(a) up-grading and rehabilitation of small-scale irrigation infrastructure and existing water tanks and irrigation systems including agro-wells in selected priority areas;
(b) The improvement of existing production roads and construction of new small roads and field access tracks to improve accessibility for modern agricultural machinery and transportation needs, and
(c) Modern village level storage and product handling facilities including drying platforms and sheds and composting of crop residues, etc..

Operation and maintenance would largely be assigned to village and farmer organizations, which would sign O&M agreements accordingly.

Output 3.1: Improved accessibility to irrigation water for areas with water and soil problems

This action will address short term vulnerability as well as long term irrigation needs by rehabilitating essential minor irrigation tanks in the target districts. Through minor tank rehabilitation, communities will gain access to new paddy and OFC lands, to increase production and promote economic development through both an increase in agricultural production and improved productivity.

Activity 3.1.1. the up-grading and rehabilitation of small-scale irrigation infrastructure and existing water tanks and irrigation systems in the selected priority project areas and linked to the agriculture technology demonstrations parks;

Activity 3.1.2. establishment / renovation of agro-wells to enhance irrigation water supply using groundwater where available

Activity3.1.3 Rehabilitation the canal network through cleaning and de-silting, to improve water conveyance efficiency & reduce undue water losses

Output 3.2. Improvement of selected production and market access roads and construction of new field access tracks to improve transportation, access to markets and accessibility for agricultural machinery.

Output 3.3. village level storage and product handling facilities, including drying platforms and sheds, composting facilities of crop residues, storage facilities improved.

Infrastructure investment would complement investments in the agriculture technology demonstration parks under outcome.*2*. Procurement and management of civil works contracts would be under the responsibility the Provincial Councils through the PPMUs and would be implemented in close coordination with the PMU of MOA.

Outcome 4. Improved capacity of government institutions to respond to the demands and needs of the agricultural sector. (*Total Cost US$ 4.28 million, IDA US$ 4.28 million)*

Output 4.1. evidence-based policy, legal and regulatory framework developed.

The component will provide support to: develop an evidence-based policy, legal and regulatory framework; address knowledge gaps as well as policy and regulatory inconsistencies as they may arise from time to time with policy decisions emanating from different parts of the government; and formulate sector and sub-sectoral strategies to provide the suitable enabling environment for a sustainable and competitive modern agriculture and food system. The expected outcomes of this component include: policy analysis integrated into the government's policy decision making process; a strengthened socio-economic analytical foundation in the formulation of long-term sector and sub-sector development strategies; improved coordination across various parts of the government on economic policies and regulations affecting the enabling environment for private investment in the agriculture and food sector.

This component will be implemented by CARP. Day-to-day activities will be managed by a small policy unit to be established in CARP with project support. The unit would report to the Chairman of CARP, a position held by a highly-respected person with convening power across Ministries and disciplines to affect proper coordination and link with the higher level economic and political decision-making processes.

This component will facilitate access by key government decision makers to the best available analytical expertise and policy advice to: (i) evaluate policies and regulations and recommend adjustments, reforms or new policies needed to make agriculture more competitive, responsive to market demand, sustainable, and resilient; (ii) undertake strategic market analysis for promoting new and high value exports, and analyze the changes needed in the policy, regulatory and institutional framework, or public investments needed to address the binding constraints to the evolution of high impact value chains; (iii) evaluate the social and economic impact of policies and public expenditures and make recommendations on course corrections to improve the efficiency and effectiveness of public expenditures; and (iv) undertake external and independent monitoring and evaluation functions, including formal impact evaluations of government programs and investments, to provide the critical learning and feedback loop into the ministries' decision making processes.

The specific responsibilities of CARP will be to: (i) develop an annual program of studies and analytical work at the start of each year; (ii) based on study findings guide the technical and policy level consultations and discussions of the CPCU and the participating ministries; (iii) monitor the consistency of economic policies across various parts of the government; and (iv) host an annual conference on Sri Lanka's agricultural policy with the participation of top policy makers in various concerned ministries and departments, academics and researchers, private sector representatives engaged in agriculture and food business (both domestic, imports and exports), and other stakeholders participating. The conference would bring together available knowledge on topical subjects and identify priority analytical and policy research topics that would constitute the component's annual work program for the following year. The policy analysis and research program would be implemented through a multi-year framework agreement with a competitively selected consortium of domestic and international researchers to provide independent and objective analysis. Competition will be open to both local and international agencies/consortia with the proviso that local bidders would have to partner with a reputable and well recognized international research organization, and that the international bidders will have local institutional collaboration with a university or researcher organization or a local consortia of researchers.

This component may also provide some limited support for equipment to MOA proposed Center of Excellence and some start-up support to conceptualize a national agriculture information system, with the medium-term objective to build capacity for data collection and management in support of policy formulation, enhanced public service provision, and improved risk monitoring in agriculture. The system would promote the coordinated organization, standardization and integration of data and information, supported by remote sensing and meteorological data and analysis capacity, and enhance communication and interoperability between the various agencies and accessibility to the public and private sectors.

Output 4.2. Online National Food Crops Information System established

One of the main problems in agriculture has been identified as the lack of accurate statistical data and real time information from beginning of cultivation to the end of market. It is mainly due to the absence of timely updating proper database for information management in agriculture. Non availability of proper database for cultivations and productions of food crops has created many difficulties in decision making. The solution for the above issues will be a proper Information Management System to collect, compile, analyze and disseminate correct information to all stakeholders. In the present information era of the modern world, Information and Communication Technologies (ICTs) have been applied successfully for operating such information management. Some ICTs have been implemented in Sri Lanka in some other

fields such as banks and other financial institutions, national examinations and universities, etc.

Activities:

4.2.1 Develop and establish web based information system for agriculture

4.2.2 Training to all relevant officers for updating the information system

4.2.3 Establishing monitoring and evaluation system for further upgrading and development of system

4.2.4 Supply of necessary hardware and software

Output 4.3 Development of an Agricultural centre of Excellence at the Ministry of Agriculture

Sri Lanka is an agricultural country and agriculture has to play a major role in the economy of the country. Majority of the farming community visits the Ministry on daily basis for variety of purposes. Also, as Ministry of Agriculture implements various projects funded by different donors/ countries, foreign delegates visit the ministry very often. Also, there is a growing demand for interventions on Urban-agriculture. Therefore, it is proposed to set up a facility to cater all these needs under one roof at the ministry of agriculture, Colombo by establishing a demonstrational field to express the history, current position and new trends of Sri Lankan agriculture.

Activity 4.3.1 Establish a demonstrational agriculture field which can express traditions and new trends of agriculture in Sri Lanka
Activity 4.3.2 Establish a facility for agriculture related activities such as conferences, exhibitions etc.
Activity 4.3.3 Provision of Instruments and other requirements/training needs

7. Budget

Describe resources needed to implement the project[1].

Project Base **Cost (USD)**

B. Productivity Enhancement and Diversification

	cost ('000)	Subtotal (millions)
1. Farmer and FO capacity building		**5.349**
A. Farmer Business school		1.700
- Module and criteria development	80.0	
- Preparation of Role out plans	20.0	
- Training of master trainers	100.0	
- Training of trainers	150.0	
- Refresher training for TOT	150.0	
- Role out training in villages	1,200.0	
B. Development of Farmer Organivations		3.217
- Visibility scoping and facilitation	317.0	
- Capacity building for FOs	2,000.o	
- FO Registration fees	50.0	
- FO facilities	850.0	
C. Support by local MOA district officers		0.432
2. Modern Agriculture Technology Parks		**30.40**
A. Turnkey contracts		30,000
B. Facilities		400
3. Production Infrastructure		**13.50**
4. Analytical and Policy assistance		**4.00**
Total		**53.249**

8. Implementation schedule

a. Implementation arrangement

1. Under the Ministry of Agriculture, the following project-relevant units and entities would be set up.

- **Ministerial Leading Group.** A ministerial leading group would be set up to guide overall component implementation, in particular: site-selection for project interventions, selection of technology innovations and turn-key solutions to be

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demonstrated, capacity building and farmer training, as well as selection of productive infrastructure investments under sub-components 1.1, 1.2, and 1.3.

The Ministerial Leading Group would also select relevant sector policy topics to be funded under Component 3 Policy and Advisory Support.

- **Project Management Unit (PMU)**. A Project Management Unit, headed by a project director, would be set up to work under the guidance of the Ministerial Leading Group and be responsible for overall day-to-day coordination and management of Component 2.

  Specifically, the PMU would be responsible for annual work and budget planning; coordination of provinces/ districts in public outreach and community mobilization, procurement and contract management, fund withdrawal and financial management, including and financial reporting; technical and institutional implementation aspects, field supervision and acceptance checks; and training and capacity building.

  Specific PMU tasks would include: advertising, soliciting, reviewing and appraising proposals for technology demonstrations under sub-component 2.1 and development training and capacity building programs from farmers (FFS/FBS) under sub-component 2.2. It would also be responsible for carrying out technical feasibility studies for selected productive infrastructure investments/ upgrading and for the implementation of the civil works etc..

  The PMU would also be responsible for reporting on project progress and implementation issues to the Bank, including the relevant project M&E indicators.

b. Implementation Plan

(indicative)
Insert table with a calendar of activities

9. Sustainability
After the project implementation ends, the project can continue by itself, without external support, and the project purpose is sustainable in the long term. This presupposes that effective mechanisms are put in place by the recipient administration to disseminate and consolidate the results of the project.

ANNEXES to the project proposal

1. Logical framework matrix in standard format (optional)
2. Work plan (optional)