



Annual Report 2020

Climate Smart Irrigated Agriculture Project
(CSIAP)

Ministry of Agriculture



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Executive Summary:

This is the Annual Report of the year 2020 of the Climate Smart Irrigated Agriculture Project (CSIAP) of the Ministry of Agriculture. In addition to the Project Management Unit based in Colombo, there are six Deputy Project Director Offices in Northern, Eastern, North-Western, North-Central, Southern and Uva provinces.

The CSIAP was implemented to improve the climate resilience of farmer communities and the productivity of the irrigated agriculture (capacity of agricultural systems to respond to drought and flood by resisting or tolerating the havocs, and returning to normalcy as soon as possible through the integration of adaptation, mitigation and other climate-smart agriculture (CSA) practices) in selected climatically vulnerable smallholder agriculture in selected hotspot areas in Sri Lanka.

Sri Lanka is a lower-middle-income country with a GDP per capita of US\$4,065 and a total population of 21.4 million people (2017). She is vulnerable to climate-related natural disasters that bring grave economic impacts.

The agriculture sector remains the backbone of Sri Lanka's culture and economy while contributing 6.9% to GDP and employs approximately 27% of the population. Although farming is the main occupation of beneficiaries of the hotspots, the per capita income (Rs.190 per day) of them is below the poverty level.

Of the country's approximately 2.3 million hectares (ha) of agricultural land, around 80% is under smallholder production. Irrigation is one of the vital features of the smallholder agriculture sector, and it has a long history of water management for agriculture production. But recently, water scarcity has increased because of the high inter-annual and inter-seasonal variability in rainfall, changes in the land-use pattern of the catchment areas that have reduced the proportion of available rainfall which feeds the downstream tanks.

Although many parts of the country are subject to the increased frequency and severity of climate-driven disasters, some predominantly agriculture-based areas have specifically been susceptible to either flood or drought, and sometimes to both hazards.

The Department of Agrarian Development of the Ministry of Agriculture, the World Food Program and the International Water Management Institute earmarked these hotspots area through rigorous analysis of empirical evidence.

Crop diversification is practised only relating to a negligible number of tanks and, crop cultivation in high land in hotspot areas is limited only to wet and extreme wet seasons and the total extent is left fallow during other periods of the year. Therefore, improved access to irrigation and better water management needs to be made available to improve productivity in the sector.

The primary beneficiaries of the project will be over 470,000 smallholder farmers in hotspot areas (375,000ha) in 11 administrative districts - Kilinochchi, Mullaitivu, Anuradhapura, Polonnaruwa, Puttalam, Kurunegala, Trincomalee, Batticaloa, Ampara, Hambantota and Moneragala in the six provinces (Northern, North-Central, North-Western, Eastern, Southern and Uva) in the dry zone of Sri Lanka.

Agriculture production and marketing, and the water for agriculture are the two main components of the project. Under Agriculture Production and Marketing (Component - 1); five agriculture programs (Cluster Village Development, COVID-19 Yala, Climate Smart Nutritional Sensitive Home Garden, Mid-Season Cultivation and Maha Season) have launched in line with the National Policy titled “Saubahgyaye Dekma” of the Ministry of Agriculture and, number of Climate Smart Agriculture Practices have been introduced including crop diversification and increasing water productivity. Demonstration plots on CSA practices have done under Cluster Village Development Program.

COVID-19 Yala and Climate Smart Nutritional Sensitive Home Garden programs benefited the farmers during the COVID-19 pandemic to improve agriculture productivity. The people under lockdown situation were able to attend fulltime in agriculture thus improving productivity thereby increasing the household income.

The introduced Mid-season cultivation prevented labour mobilizing where farmers seek temporary jobs in between Yala and Maha which helped improve the smallholder land cultivation thereby increasing the living standard during the COVID-19 pandemic situation.

The total number of hectares covered by the above five agriculture programs were 7,434.25 and 19,923 farmers were involved and their contributions are 3.96%, 2.01%, 1.87%, 0.07%, 0.67%, 0.07%, 3.20%, 0.01% and 0.02% of groundnut, mung bean, cowpea, chilies-raw, maize, soya bean, red onion, kurakkan and black gram respectively to the National Production.

Almost all the farmers sell their agriculture products in the form of primary products to collectors who come from outside. They neither add value nor practise post-harvest methods. Consequently, they fetch only low prices for their products.

Most of the farmers are facing serious problems in transporting agri-products and necessary inputs to the field due to the underdeveloped infrastructure facilities within the command area as well as its adjacent areas. Condition and facilities of local markets are below the expected level and, the non-existence of wholesale markets within the hotspot areas as well as the improper location of existing markets are the major problems faced by the farmers to have adequate market access to sell their products at attractive prices. They have no adequate storage facilities as well.

Rehabilitation of Agriculture roads and modern facilities at Agrarian Service Centres (ASC) are vital for marketing their produce. The delay in the construction of such centres and producing marketing channels have caused difficulties in the marketing process in some provinces. During the year 2020 the project completed civil works of 16 ASCs as one-stop service centres, and the construction of 20 centres out of a total number of 47 ASCs are being done.

The basic requirements to construct Vannericulum Agriculture road (7.73km) and Market Road of Poonakary (10.01km) are being done.

The establishment of CSA Farm Field School (FFS) aims to implement a scientific training programs over three years (2020-2023) to promote Climate Smart Agricultural (CSA) practices among the farmers in 11 poverty-stricken and climatically vulnerable hotspot areas. This FFS will be assisting the Farm Business Schools (FBS) which will be established by CSIAP in production areas to promote CSA technologies and practices to help farmers to increase in resilience of their farming systems to adapt to climate changes in the hotspot areas to improve agricultural productivity.

The total number of schemes proposed for rehabilitation is 1,200 and the total irrigated area is 24,000 ha under Rehabilitation of Irrigation Systems, Operation and Maintenance of Irrigation Systems which comes under Component 2 - Water for Agriculture. Engineering surveys have been completed in 230 tanks and work of another 679 tanks have been awarded to private firms.

The project has carried out hydrological assessments in Mandakal Aru, Yan Oya and Mi Oya river basins under the Stage 1 pilot program. The project has arranged to call proposals for the river basins of Manik Ganga, Kirindi Oya, Heda Oya and Karanda Oya under Stage 2; and Kala Oya, Per Aru and Mundeni Aru river basins under Stage 3.

Despite the COVID 19 pandemic lockdown situation, the travel restrictions imposed by the Government and the health sector rules and regulations, the CSIAP has gained a considerable achievement during 2020 and all the programs will continue with further expansion for the betterment of the beneficiaries.

Chapter 1: PROJECT BACKGROUND

Sri Lanka is a Lower Middle-Income country with a GDP per capita of US\$4,065 (2017) and a total population of 21.4 million people. Following the 30-year civil war that ended in 2009, Sri Lanka's economy grew at an average 5.8 per cent annually between 2010 and 2017, reflecting a peace dividend and a determined policy thrust towards reconstruction and growth despite some signs of a slowdown in the last few years. The economy is transitioning towards a more urbanized, manufacturing and service oriented one from its predominantly rural-based one. Economic growth has contributed to the decline in the national poverty headcount ratio to 4.1 per cent in 2016 from 15.3 per cent in 2006/07. Extreme poverty is rare and is concentrated in some geographical pockets.

Sri Lanka is vulnerable to climate-related natural disasters that have major economic impacts. The annual loss of houses, infrastructure and agriculture caused by natural disasters and the cost of relief provided to the victims for a long time are estimated at LKR50 billion (US\$327 million), with the highest annual expected losses from floods, cyclones or high winds, drought, and landslides. This is equivalent to 0.4 per cent of GDP or 2.1 per cent 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.

1.1 PROJECT OUTLINE

The Government of the Democratic Socialist Republic of Sri Lanka (GoSL) has established the Climate Smart Irrigated Agriculture Project (CSIAP) in collaboration with the World Bank to improve the climate resilience of farmer communities and productivity of irrigated agriculture in selected climatically vulnerable hotspot areas in Sri Lanka.

1.2 Project Cost

The total project costs US\$140 million for six years. World Bank will provide a loan equivalent to US\$125 million. Expenditure categories for World Bank funding include goods works, non-consulting services, training and incremental cost of the project and grant for Sub-component 1.1 and Sub-component 2.1. The Government of Sri Lanka will provide US\$10 million while the community contribution will be US\$5 million.

**SRI LANKA
IMPLEMENTATION AREAS OF
CLIMATE SMART IRRIGATED
AGRICULTURE PROJECT**

PROJECT DISTRICTS
PROJECT AREAS (HOTSPOTS)
RIVER BASINS
RIVER BASINS NAMES:
22 Kirindi Oya
26 Menik Ganga
36 Heda Oya
37 Karanda Oya
52 Mundeni Aru
67 Yan Oya
75 Per Aru
84 Mandekal Aru
93 Kala Oya
95 Mi Oya
--- SUBWATERSHED BOUNDARIES

PROVINCE CAPITALS
NATIONAL CAPITAL
DISTRICT BOUNDARIES
PROVINCE BOUNDARIES

IBRD 43496 | OCTOBER 2018
This map was produced by the Cartography Unit of the World Bank Group. The boundaries, colors, denominations and any other information shown on this map do not imply, on the part of the World Bank Group, any judgment on the legal status of any territory, or any endorsement or acceptance of such boundaries.

The primary beneficiaries of the project will be over 470,000 smallholder farmers (375,000 ha) in hotspots of 11 administrative districts - Kilinochchi and Mullaitivu in the Northern Province; Trincomalee, Batticaloa and Ampara in the Eastern Province; Anuradhapura and Polonnaruwa in the North Central Province; Kurunegala and Puttalam in the North-Western Province; Hambantota in the Southern Province and Moneragala in the Uva Province of Sri Lanka. The districts were selected on the existing climatically vulnerable hotspot areas in each district. The World Food Program (WFP) Sri Lanka Unit which is housed in the Ministry of Disaster Management in collaboration with the International Water Management Institute (IWMI) and the Department of Agrarian Development used a rigorous database in this exercise.

1.3 GOAL AND DEVELOPMENT OBJECTIVES OF THE PROJECT

The Development Objective of the Project is to improve the climate resilience of farmer communities and the productivity of irrigated agriculture in selected climatically vulnerable hotspot areas in Sri Lanka. This objective will be achieved through increased adaptation of climate-resilient agricultural practices and technologies, improved agricultural productivity, and increased access to markets in the targeted smallholder farmer communities.

1.4 PROJECT OUTCOMES

The expected project Results Indicators (Outcome) would be:

Key Results Indicators:

1. Increase in water productivity at the farm level (kg/m³)
2. Increase in agriculture productivity of crops (%)
3. Increase in the catchment area with water conservation practices (%)
4. Crop diversification index (%) and
5. Direct project beneficiaries and disaggregated by gender (no).

1.5 Project Components

The project has four components as follows.

1.5.1 Component 1: Agriculture Production and Marketing (US\$37 Mn)

The objective of this Component is to improve the agriculture productivity and diversification through the adoption of Climate-Smart Agriculture (CSA) practices and improved on-farm water management.

1.5.1.1 Sub-component 1: Climate-Smart Agriculture & Agriculture Technology (US\$21 Mn)

This Sub-component will support the adoption of CSA and focus on (a) demonstrating the effectiveness of CSA practices in farm fields through Farmer Business Schools (FBSs) and

leveraging information and communication technology (ICT) for peer-to-peer learning and (b) supporting the uptake of CSA practices by establishing Producer Groups (PGs).

1.5.2 Sub-component 1.2: Marketing (US\$16 Mn)

This Sub-component aims to strengthen the links between the PGs and the agriculture commodity markets by:

(a) Upgrading and/or rehabilitating critical market infrastructure and (b) Supporting farmers to access markets and develop sustainable links to agribusinesses.

The key activities:

(a) Common infrastructure for Agri-commodity marketing (markets, storage, access roads and the construction and/or upgrading Common Service Centers (CSCs); and
(b) TA to support the PGs to build commercial links with agribusinesses.

1.5.3 Component 2: - Water for Agriculture (US\$92 Mn) Reduced to US\$82 Mn after deduction of funds)

The objective of this component is to facilitate:

(a) Planning on supplying water and other necessary infrastructure to support climate-resilient irrigated agriculture;
(b) Construction of the planned infrastructure, and
(c) Co-management of this infrastructure by central/provincial governments and the local community.

1.5.3.1 Sub-component 2.1: Rehabilitation of Irrigation Systems (US\$76 Mn)

This sub-component will support the rehabilitation of irrigation systems based on the plans that are derived from hydrologic modelling, accounting for projected climate change in the project areas.

The key activities include:

(a) **Technical Assistance to support hydrology modelling and the preparation of Hotspot Area Agriculture Development Plans (HSAADPs)** at three levels: hotspots (about 25,000 ha); mini-watersheds within the hotspot areas (about 4,000 ha) including tank cascade systems, stand-alone irrigation systems, and rain-fed agriculture systems; and local administrative level (Divisional Secretary [DS] Divisions and Grama Niladhari [GN] Divisions); (b) **Rehabilitation, modernization, and repair of existing cascade tanks and individual village tanks; construction of recharge wells in the tank beds;** drainages and flood protection infrastructure; and (c) Field implementation of watershed treatment and water harvesting works.

Sub-component 2.2: Operation and Maintenance of Irrigation Systems (US\$ Mn). This aims to ensure the sustainable operation and maintenance (O&M) of tank systems at the individual tank

level and system-wide.

1.5.4 Component 3: Project Management (US\$6 Mn)

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 *sub-national* levels.

This component will finance:

(a) The consultancy and operating costs of the Project Management Unit (PMU), the Deputy Project Director (DPD) Offices and different project executing agencies including fiduciary and safeguard aspects; (b) The monitoring and evaluation (M&E) of project activities at baseline, midterm, and the end of the project including geo-tagging of the assets created; and (c) Information, education, and communication campaigns to make all stakeholders aware of the project.

1.5.5 Component 4: Contingent Emergency Response (US\$0 million).

This emergency response component will allow for the rapid reallocation of project proceeds in the event a natural disaster or a crisis that has caused or is imminent to be caused creating major adverse economic and/or social impact.

1.5.6 Project Implementation

The Project is implemented for over six years (2018-2024). The Ministry of Agriculture (MOA) is the leading agency. A Project Management Unit (PMU) was established under the MOA to implement the project activities with six Provincial Deputy Project Director's Offices (DPDs). In addition to DPD offices, 11 District Units and 47 Divisional Units will be established under the DPD offices. The private sector plays an active role in the Project through developing Business School Models to strengthen the technical assistance and capacity building among beneficiaries to transform the sector into a marketing product sector through promoting value chains and supply chains. The project will also promote the participation of youth and women in all key project interventions to ensure that they would be benefited from the project activities.

CONCEPT OF CSIAP

- ▶ Climate-related hazards pose a significant threat to economic and social development in Sri Lanka.
- ▶ The increasing frequency of recurrent disasters are driving the Government's interest to scale up investments in climate resilience.

- ▶ Sri Lanka has been undergoing a structural transformation with agriculture's share of GDP declining to 6.9% 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 along value chains has shown a slow growth.
- Value chain development is driven by private sector investors, but the progress is 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.
- Insufficient irrigated water limits the farmers of production opportunities in the dry season.

Component 1: Production & Marketing

1.1 Cluster Village Development Program (CVDP)

The Ministry of Agriculture has initiated five main programs to be established island wide in line with “Saubahgyaye Dekma”, the national policy. These main programs include cluster production village program, Haritha Wana Uyan program, Establishment of one-stop Service Centers, village fairs and Smart Home Garden programs. All foreign-funded projects under the purview of the Ministry have decided to conduct similar programs within the mandate of each project in collaboration with the Ministry and with the support of the other stakeholder agencies. The objectives of the ministry are:

- i. Increase farmer income;
- ii. Reduce the import cost on food items;
- iii. Increase productivity through effective land use;

Therefore, CSIAP has identified the following program to be conducted under the “Saubahgyaye Dekma” program covering eleven project districts.

Cluster Village Development Program (CVDP)

Under this proposed program, it is expected to set up a CVDP in each hotspot area for selected crops, encourage farmers to apply all possible climate-smart practices and grow market-oriented products in the village. The availability of assured water is essential for the sustainability of established villages. Since water management is a major component of CSIAP, the water resources will be rehabilitated to achieve the objectives of this project.

For this program, a Sub Project Proposal (SPP) was prepared and obtained the concurrence of the World Bank. Summary of the current progress of the CVDP program is given below:

Table 1
Details of Cluster Village Development Program (CVDP)

Province	District	Name of the village	Selected Crop	Target ha	Actual grown (ha)	Production & Income Details			
						Actual Production (M tons)	Actual average yield mt/ ha	Average selling price (Rs.)	Value of Production (l
North Western	Kurunegala	Demata Diwulwewa	Groundnut	8	5.8	9.8	1.3	243	2,381,400
	Puttalam	Wijayapura	Groundnut	8	8.0	10	1.25	243	2,430,000
				16	13.8	19.8			4,811,400
North Central	A'dhapura	Nabadawewa	Groundnut	20	20	42	2	225	9,000,000
	Polonnaruwa	Rotawewa	Water melon	12	12	16	8	25	400,000
		Sub Total		32	32	58	3.2	250	9,400,000
Uva	Monaragala	Koonketiya	Groundnut	10	10	18.05	1.805	190	3,429,500
		Sub Total		10	10	18.05		190	3,429,500
Northern	Kilinochchi	Iththimoddai	Groundnut	12	12	21.6	1.8	320	6,912,000
	Mullaitivu	Vidyapuram	Red onion	2	2	27.0	15	135	3,645,000
		Sub Total		14	14	48.6			10,557,000
Southern	Hambantota	Kodigahawewa	Groundnut	12.146	10.73	15.43	0.503	252.6	3,897,684
		Sub Total		12.146	10.73	15.43	0.503		3,897,684
Eastern	Ampara	Pansalgoda	Cowpea	60	60	38.1	0.635	280	10,668,000
	Batticaloa	Nediyamaduru	Groundnut	20	20	17.5	0.88	240	4,200,000
	Trincomalee	Kolongolla	Groundnut	20	20	37.5	1.6	210	7,875,000
		Sub Total		100	100	93.1	3.39		22,733,000
		Total		184.15	180.5	252.93			54,838,584

1.1.2 Summary of CVDP program

- ❖ The total number of CVDP beneficiaries were 652. Out of them 419 (65%) were men and 233 (35%) were women.
- ❖ Targeted extent was 184.15 ha, but actually grown area was 180.5 ha. Harvesting has been completed. At present 90.2% of the production has been sold and, a portion is kept for consumption and as planting materials for the next season.
- ❖ Main crop of the CVDP program was groundnut (59.7%) and the highest price of the main crop was Rs.320 in Kilinochchi and the lowest was Rs.190 in Moneragala.
- ❖ Price variations prevail due to lack of proper marketing facilities in the area and it is a much-needed requirement to pay more attention to the matter in the future programs.
- ❖ Though a number of micro-irrigation systems and row seedling have been used as CSA practices in number of plots under the CVDP, no increase in the yield from those plots has reported.

Table 2: Summary of crop based CVDP & contribution to National Production

Selected Crop	Target HA	Harvested crop yield/Kg & Income details						
		Seed Issued (kg)	Actual grown	Actual Production (Mt tons)	Actual average yield/Mt tons/ha	Quantity sold (Mt tons)	Average price (Rs.)	Value of Production (Rs '000)
Groundnut	110.15	19,290	106.53	171.88	1.61	158.00	240.08	41,264.95
Red onion	2.00	4000	2.00	27.00	13.50	23.0	135.00	3,645.00
Cowpea	60	1500	60	38.1	0.635	37	280	10,668.00
Water melon (tin kg)	12	6	12	16	1.33	16	25	400.00
Mango plants	(5500)							
	184.15		180.53	252.98		234.0		55,977.95

Table-2 shows how the CVDP program has contributed to the country's agriculture production. Though the total production is 252.98 Metric tons, only 234 (92.5%) Metric tons have been sold and the remaining portion has been kept for consumption and as planting material for next

season. Harvesting watermelon has also been completed and mango harvesting is expected in next five years.

1.1.4 Status of Micro-Irrigation Systems used for CVDP

Northwestern Province

- ❖ 20 units of sprinkler sets and a Multi-chopper machine have been handed over to the 20 farmers of the Producer Group at Dematadivulwewa in the Kurunegala District.
- ❖ After harvesting, marketing arrangements have been made through the Department of Agriculture to sell the production as certified seeds. DOA will purchase the production after obtaining the seed certification.
- ❖ 10 units of sprinkler sets were distributed among 10 farmers in the Puttalam district.
- ❖ 12,000 metres of pipes have been handed over to producer societies in Dematadivulwewa and Wijayapura. 30 members were benefited.
- ❖ Though the number of micro-irrigation systems, row seedling methods and certified seeds have been used in a number of plots under the CVDP, no increase in the yield of those plots is reported. However farmers who engaged in demo plots said that they obtained higher yields.

❖ **North Central province**

- ❖ Five units of water pumps and 10 units of sprinkler irrigation systems have been fixed in the field and 35 farmers are using them through Producer Societies.
- ❖ 15 units of drip irrigation systems and 3000 clay pots have been distributed among 24 farmers.

Northern Province

- ❖ 80 sprinkler units have been distributed among 80 beneficiaries. A signboard was also fixed at the village site. It was unable to distribute big onion seeds due to the unavailability of seeds during the distribution period. Sprinkler systems were available at a lower price than the expected price.
- ❖ *Though the CSIAP has made several attempts to provide training programs on CSA practices to the farmers, the DOA has postponed the training without any clarification.*
- ❖ A fungal attack has observed in most onion beds in Mullaitivu and Vidyapuram CVDPs. Therefore, fungus prevention demonstration has been organized by an Agriculture Instructor to train 80 farmers.

Eastern Province

- Batticaloa - Nediymadu CVDP - 20 water pumps and 1282 metres of alkathiene pipes have been distributed among 50 beneficiaries.
- Ampara - Pansalgoda CVDP - 25 water pumps and 1282 metres of alkathiene pipes have been distributed among 100 farmers.
- Trincomalee - 10 units of water pumps and 1282 metres of alkathiene pipes have been distributed among 50 farmers.

Uva Province

50 drip irrigation systems, 10 water pumps and 2121 metres of alkathiene pipes have been distributed among 50 farmers.

Southern Province

1400 metres of alkathiene pipes have been distributed among 17 farmers.

Figure 2: Micro Irrigation System (CVDP)



North-Central

Northern Kilinochchi & Mullaitivu



1.1.5 Micro Irrigation systems used for CVDP Program

The CSIAP project is supporting to increase water use efficiency at farmstead level. Micro Irrigation technology e.g., drip and sprinkler irrigation including drip fertigation to increase the productivity of crops with less water should be popularized as per the guidelines given by the WB. Table-5 shows how the micro irrigation systems have been distributed among CVDP beneficiaries of the project. 170 sprinkler sets, 65 drip irrigation units and 70 water pumps have been distributed among 548 CVDP farmers. The following table indicates that how farmers were benefited by the use of micro irrigation systems under CVDP.

Table 3: Crop Specific Micro- Irrigation system as at 31st Dec 2020.

District	Crop	Sprinkler sets	Drip irrigation	Water pumps	Alkathiene pipes (M)	Clay pots	Multi chopper	Farmers
Kurunegala	Groundnut	20	-	-	4000	-	1	31
Puttalam	Groundnut	10	-	-	8000	-		30
	Sub Total	30			12000		1	61
Anuradhapura	Groundnut	10	-	5	--	-	-	85
Polonnaruwa	Watermelon Mango	-	15	-	-	3000		60
	Sub Total	10	15	5				145
Kilinochchi	Groundnut	60	-	-	-	-	-	60
Mullaitivu	Red Onion	20	--	-	-	--	-	20
	Sub Total	80						80
Trincomalee	Groundnut	50	-	10	1282	--	-	110
Batticaloa	Groundnut	-	--	20	1282	-	-	70
Ampara	Cowpea	-	-	25	2564	-	-	25
	Sub Total	50		55	5128			205
Moneragala	Groundnut		50	10	2121.25			50
	Sub Total		50	10	2121.25			50
Hambantota	Groundnut				1400			17
	Sub Total				1400			17
	Total	170	65	70	20,649.5	3000	1	558

Success story under CVDP - Eastern Province

Kolongolla Cluster Village Development Program

The Kolongolla village belongs to Paranamedawachchiya Grama Niladhari Division in the Padavisripura DS Division of the Trincomalee District. The main income source of 90% of the total population in the area is agriculture. The area consists of around 700 ha of paddy lands, 68 ha of highlands and 294 farmer families. The farmers practise small scale normal agriculture cultivation pattern during Maha and Yala seasons. The vegetables such as bushitao, okra, manioc and OFC mainly kurakkan, cowpea and green gram.

The Climate Smart Irrigated Agriculture Project introduced groundnut cultivation in 50 acres in Kolongolla village for the first time. Farmers showed interest in cultivating groundnut. Mostly they cultivated groundnut in their paddy fields soon after Maha. Therefore, they effectively utilized water potential. In later stages water is effectively used with the help of the sprinkler irrigation system which was provided by the CSIAP.

Even though they did not use any fertilizer they could be able to yield around 600 – 750 kg/ac and a good market price. The buyers came out of the districts; Vavuniya and Horowpothana. Only the family members were involved in the cultivation, harvesting and threshing activities. So, there was no extra cost to hire labor and the family members got income opportunities.



Farmer M.G. Anura Buddika said that he cultivated groundnut in one acre, harvested 720 kg and sold the produce at Rs.250 per kg thereby earning a profit of Rs.110,000. He is satisfied about his extra income and is willing to double the cultivation next year. He also reserved seeds for the cultivation in the next season.

A women-headed farmer R.M. Ajantha Kumari said that she found it her sprinkler irrigation system was effective and time saving therefore is more useful in the dry season. She utilized her valuable time in other cultivation activities. Ajantha Kumari wonders about this success of groundnut cultivation and new income avenue. The CSIAP EP conducted training programs on the practice of crop rotation activities to improve the fertility in their cultivable lands.

1.2 COVID 19 – Yala Production Program

A Sub Project Proposal was written for the cultivation of Other Field Crops (OFCs) following Climate Smart Practices (CSAs) in hotspot areas of 11 districts in the Dry Zone of Sri Lanka in Yala

season 2020: A parallel program with the collaboration of the Ministry of Agriculture to ensure food security in the country following the outbreak of COVID – 19.

This covers an area of 1500 ha of land under OFC cultivation in the country. This intervention was identified as a contingency response to the “Saubahgyaye - National Food Drive”. Farmers who will be involved in the project are familiar with the OFCs cultivation. This project will be implemented in all the possible areas of the hotspots and the lessons learnt in this season will be utilized in developing future proposals.

To achieve the objectives of the sub-project many strategies were planned to be adopted by the CSIAP with the help of the implementing agencies. As described earlier the project aims to increase the production of OFCs through the organization of farmer groups in hotspot areas. For this, the sub-project proposes to supply a few essential inputs such as seeds, financial assistance for land preparation and also provide CSA technology/assistance to the end-users.

According to the sub-project proposals prepared for the COVID-19, Yala program will cover nearly 7000 targeted farmers. During the reporting period, 6819 beneficiaries have been recorded. Male participation is reported as 68.4 % while the female as 31.6%.

1.1.2 COVID-19 Yala Program – Provincial & District wise Harvested Crops (ha) & Production

Table 4 Current status of COVID-19 Yala program as at 31st Dec 2020.

Province	District	Target extent (ha)	Actual Grown (HA)	Seeds distributed	Expenditure (LKR)	Production (Metric ton)	Farmer Participation		
							Male	Female	Total
North Western	Kurunegala	145.90	133.56	9582.18	373,152	185	604	316	920
	Puttalam	62.85	36.1	2612.5	826,445	39	57	35	92
	Sub Total	208.75	169.66	12194.68	1,199,597	224	661	351	1012
North Central	A'pura	241.2	241.2	6120	1,163,526	412	597	415	1012
	Polonnaruwa	24.4	18.4	262.5	131,253	31	25	18	43
	Sub Total	265.6	259.6	6382.5	1,294,779	443	622	433	1055
UVA	Moneragala	210	225.2	71384	13,607,998	618	1132	506	1638
	Sub Total	210	225.2	71384	13,607,998	618	1132	506	1638
Northern	Kilinochchi	330	203.8	13215	4,886,030	437	732	337	1069
	Mullaitivu	262.8	258.08	29230.3	10,102,155	548	855	328	1183
	Sub Total	592.8	461.88	42445.3	14,988,185	985	1587	665	2252
Southern	Hambantota	78.75	78.75	2736	1,941,000	49	137	90	227
	Sub Total	78.75	78.75	2736	1,941,000	49	137	90	227
Eastern	Ampara	80	80	2094.8	3,220,980	148	178	57	235
	Trincomalee	30	30	8000	693,100	38	148	52	200
	Sub Total	110	110	10094.8	3,914,080	186	326	109	435
		1465.90	1305.09	145237.28	36,945,639	2505	4465	2154	6619

Majority of beneficiaries have reported from Northern, Uva, North-Central and North-Western provinces. They are 34%, 24.75%, 15.94% and 15.29% respectively. A minority was from Eastern and Southern provinces, 6.57% and 3.43% respectively.

1.1.5. Provincial & District level Distribution of Yala program

North-Western Province

- ❖ **Total beneficiaries** of the program in the Kurunegala district have reported as 920; 604 male and 316 female members respectively. 92 beneficiaries have reported from the Puttalam district; 57 male and 35 female members respectively.

Marketing Strategies

- ❖ The Commissioner of the Dept. of Cooperative has agreed to purchase products through Multi-Purpose Cooperative Societies and informed further to use potential market places such as Provincial Council Office premises, weekly markets and private retail shops.

"My name is Tilakaratne Banda. Residence Thorawa, Mahananneriya. I am a disabled soldier who served in the Sri Lanka Army. At present agriculture is carried out as a livelihood. I am married and have a daughter and a son.

I am the current Secretary of the Thorawa Farmers' Association. I first came to know about this project from Agriculture Instructor in the area. The project gave me 40kg of groundnut under the COVID-19 Yala program. They were planted in an acre using family labor. Two laborers were hired for about 3 days to control weeds and yield the harvest. Well water used for irrigation.

The harvest was 850 kilos. I sold that harvest at Rs.210 per kilo and earned Rs.178500.00. The total cost was around Rs. 20000.00. No pesticides were used. Fertilizer used for one paddy field, so the cost could be minimized.

"I hope to be involved in this project further and become a successful entrepreneur."



North-Central Province

1012 farmers in Anuradhapura and 43 in Polonnaruwa districts were involved in the production program and the harvesting has been completed.

Marketing Strategies: A forward sales agreement to sell and buy soya bean and green gram has already been signed between 32 farmers and the Maliban Company. Progress in the Polonnaruwa district is remaining around 50%, and it may not go beyond under the prevailing situation.

Farmers have rejected to obtain cowpea seeds due to heavy rains and waterlogging in the fields. Those seeds have been transferred to Parangiyawadiya ASC in Anuradhapura.

- ❖ Maize harvesting has completed and the yield has been sold as green cobs in the open market.

Northern Province

The marketing strategies practising in Yala season

- **Market development strategy** – A new market has identified for existing crops. For example, Ceylon Biscuits Limited has reached in Kilinochchi and Mullaitivu districts to purchase groundnut.
- **Win-Win strategy** - This strategy successfully continues through forwarding sales agreements. CBL has verbally promised to purchase the groundnut produce and the producers have agreed reciprocally to supply their stocks. At the off-harvesting period, the selling price was Rs.220 /kg. CBL has already started purchasing the produce at the same price irrespective of the agreement.
- **Targeted market strategy** - Farmers have also decided to cultivate crop varieties according to the market demand. If we consider groundnuts, “Anuratha” variety is highly demanded in the market hence farmers have selected to cultivate that variety. Chilli market also follows the same strategy.

Market Linkages

Seven crops have been cultivated in Yala 2020 under CSIAP in the Kilinochchi and the Mullaitivu districts. Two marketing linkages have been identified for two crops out of seven crops; especially for groundnuts and green grams. Therefore, those two marketing linkages have been established from this Yala season, and the balance marketing linkages will be established during the period of Maha 2020/21.



Chilie harvesting



Groundnut harvesting - Mullaivallai



Harvesting and drying groundnuts – Mullaitivu

Eastern Province

Trincomalee district

235 farmers in the Trincomalee and 200 farmers in the Ampara districts are involved in the production program.

Batticaloa District: *Hence Yala cultivation was commenced before the proposal was approved; farmers started their cultivation before the CSIAP launched its activities and the COVID-19 program could not be carried out in Batticaloa District.*



COVID-19 Program – Padavisripura



Groundnut field day – Komari, Ampara

Uva Province -

1838 farmers have been involved in the production program. Harvesting has completed and production has been sold. When compared with the red onion yield of Mullaitivu, the yield of the Moneragala district is lower.

Figure 3: COVID-19 Yala – Red Onion cultivation in Uva province



Groundnut harvesting



Red onion harvesting by husband and wife

Red onion for
sale at the
village fair in
Buttala



According to the available data an average yield of 14.7 metric tons of red onion per ha has been recorded in the Mullaitivu district while it is only 7.6 metric tons per ha in the Moneragala district.

That means its harvest is nearly 50% less than the yield of Mullaitivu. The soil conditions and the quality of seeds may be the reasons for the decline. Some locations especially in Buttala area have recorded a good yield of more than 10.0 Mt/ha.

Southern Province

- ❖ Crop plantation completed and mung bean harvesting has been started.
- ❖ 237 farmers have been involved in the production program and all have signed the Tri-Party Agreements. (137 men and 90 women)



Udawewa groundnut cultivation



Mung bean harvesting

CSA PRACTICES USED BY PROJECT BENEFICIARIES

Table 5: North Western

No	CSA Practices	CVDP	COVID Yala	Mid-Season	Home Garden	Maha	Total
		Farmers	Farmers	Farmers	Farmers	Farmers	
1	Encourage farmers to cultivate in time	96	1006	280	750	435	2567
2	Soil bund formation	-	-	-	650	-	650
3	Using Micro Irrigation systems	30	-	-	-	-	30
4	Composting	68	705	153	525	304	1755
5	Usage of organic manure	68	705	280	525	304	1882
6	Promote crop diversification (Ha)	14	170	37	-	-	221
7	Promote climate smart varieties	1	4	1	8	6	20
8	Poly bags	-	-	-	750	--	750
9	Weed mat	-	--	-	750	-	750
	Total	277	2590	751	3958	1049	8625

CSA Practices used by project beneficiaries

Table 6: Eastern province

No	CSA Practices	CVDP	COVID Yala	Mid-Season	Home Garden	Maha	Total
		Farmers	Farmers	Farmers	Farmers	Farmers	Farmers
1	Encourage farmers to cultivate in time	270	441	336	785	3805	5637
2	Soil bund formation	39	86	46	0	118	289
3	Using Micro Irrigation systems	0	0	45	0	0	45
4	Composting	163	121	108	708	948	2048
5	Farm mechanization	104	57	45	0	1107	1313
6	Usage of organic manure	151	185	94	711	1099	2240
7	Promote crop diversification	270	241	0	0	0	511
8	Seedling	0	0	0	785	0	785
	Total	997	1131	674	2989	7077	12868

CSA Practices used by project beneficiaries

Table 7: North Central Province

No	CSA Practices	CVDP	COVID Yala	Mid-Season	Home Garden	Maha	Total
		Farmers	Farmers	Farmers	Farmers	Farmers	
1	Encourage farmers to cultivate in time	23	1082	506		431	2042
2	Soil bund formation	11				163	174
3	Using Micro Irrigation systems	30					30
4	Composting	39	263	506	330	439	1577
5	Farm mechanization	24					24
6	Usage of organic manure	22		506	330	109	967
7	Promote crop diversification	144	1082			51	1277
8	Promote climate smart varieties	148	1082	506	425	1560	3721
9	Seedling	60			425	230	715
10	Clay pots	174					174
11	Follow seasonal climate forecasting and agro - met advisory service.	20	250	100	120	500	990
12	Contour Planting				425	150	575
13	Supply of grafted fruit plant (Wood apple, Orange)				425	530	955
14	Foliar application of nutrient as and when required		174	506			680
15	Integrated Pest Management	35	530		424	750	1739
16	Drum seeder use					14	14
17	Parachute Method					11	11
18	Bund cultivation					10	10
	Total	730	4463	2630	2904	4948	15675

CSA Practices used by project beneficiaries

Table 8: Northern Province

No	CSA Practices	CVDP	COVID Yala	Mid-Season	Home Garden	Maha	Total
		Farmers	Farmers	Farmers	Farmers	Farmers	
1	Encourage farmers to cultivate in time		2,252			1,451	3,703
2	Using Micro Irrigation systems (Drip irrigation/ Sprinkler sys)	80			27		107
3	Promote production and use of compost with available plant materials and animal dung	80	1,300		400	1,000	2,780
4	Farm mechanization		110			100	210
5	Promote crop diversification				400		400
6	Seedling				400		400
7	Potted agriculture				400		400
8	Artificial mulching				400		400
9	Usages of mobile nursery trays				400		400
10	Supply of grafted fruit plant				400		400
11	Intercropping with leguminous crops				400		400
12	Self-seed production	60	500		400	300	1,260
	Total	220	4162		3627	2851	10860

Note: Farmers who have received CSIAP support are encouraged to do CSA practices, however, the department does not maintain a record of this.

CSA PRACTICES USED BY PROJECT BENEFICIARIES

Table 9: - Uva province

No	CSA Practices	CVDP	COVID Yala	Mid-Season	Home Garden	Maha	Total
		Farmers	Farmers	Farmers	Farmers	Farmers	
1	Encourage farmers to cultivate in time	50	1641	143	135	742	2711
2	Soil bund formation	20	436	32	135	324	947
3	Using Micro Irrigation systems	50	0	0	9	0	59
4	Farm mechanization	0	0	0	9	11	20
5	Usage of organic manure	50	453	143	135	254	1035
6	Promote crop diversification	50	0	0	135	25	210
7	Promote climate smart varieties	50	1641	143	135	742	2711
8	Seedling	50	753	143	135	731	1812
	Total	320	4924	604	828	2829	9505

CSA PRACTICES USED BY PROJECT BENEFICIARIES 2020

Table 10: - Southern Province

No	CSA Practices	CVDP	COVID Yala	Mid-Season	Home Garden	Maha	Total
		Farmers	Farmers	Farmers	Farmers	Farmers	
1	Land preparation immediately after the rain	27	237	173	165	600	1202
2	Planting in time	22	237	173	150	105	687
3	Application of soil conservation measures	12	56	0	100	105	273
4	Adoption of recommended technology	25	200	150	95	93	563
5	cultivation of location specific variety	27	237	173	165	665	1267
6	Row seeding	27	56	0	0	97	180
7	Use of fertilizer according to the recommendation	10	15	17	0	25	67
8	Seed treatment to control insect damages and seed borne pathogens	17	175	110	0	145	447
9	Foliar application of micro nutrients	3	0	173	165	77	418
10	Adoption of IPM	27	150	112	165	95	549
11	Use of micro irrigation	2	0	0	0	2	4
12	Application of organic manure	20	37	0	165	550	772
13	Mulching with crop residues	20	56	173	165	400	814
14	Self-seed production	27	155	110	165	520	977
Total		266	1611	1364	1500	3479	8220



Compost making



CSA training



Protecting the soil while carrying out cultivation activities North-Central Province

The Deputy Director of the North-Central Project accompanied by his staff was engaged in a field visit to Konwewa and Parangiyawadiya areas on a day of the 1st week of November 2019 to observe the activities of Participatory Rural Appraisal programme.

The endless view of the cornfields beside the village by-roads was a sight to behold. Maturing maize cultivation was flourishing and brought pleasant feelings to the eyes and the mind.

Around 12 noon a torrential downpour began. About an hour later, the journey resumed and a short distance away, a turbulent muddy water stream was sighted.

When we observed the scene, everyone understood the ugly story that has hidden behind the beautiful view we enjoyed an hour ago. It became clear that the water turned muddy due to the soil erosion of the maize fields.

Immediately, the Deputy Project Director spoke to the Project's Agricultural Specialist and said that the project should implement a practical program from next season to reduce the malpractices of land preparation.

With a determination to minimize this environmental damage, the Agricultural Specialist introduced a program to the 2020 Maha season work plan.

Accordingly, an Action Plan was prepared in consultation with the Provincial Director of Agriculture, Deputy Directors and Agriculture Instructors. Then the background was prepared to take it to the farming community. The other staff of the project, including the Environmental Protection Officer actively assisted in this work.

At the same time, Agriculture Instructors went to the Project villages of Parangiyawadiya, Konwewa, Horowpothana, Ranorawa, Tantirimale, Pemaduwa, and Galenbindunuwewa and explained the farmers the situation. All of them understood that there was high soil erosions in

maize fields and, decided to apply soil conservation methods; requested necessary guidance and support from the project.

The next challenge was to mark the soil conservation ridges on the lands of selected farmers shortly before the onset of the monsoon. For this purpose, the Deputy Directors of Agriculture who were active in the cultivating areas brought in a team of experienced Agricultural Instructors from other areas and completed the ridge marking within two weeks. Later, farmers who were enthusiastic in the work prepared earth ridges according to the standards before the next cultivation.

56km of soil conservation ridges in 280 acres of the project area was constructed as a result of this process by December 2020.

Soil erosion in these lands was minimized during 2020/2021 Maha cultivation and it was possible to prevent a considerable amount of soil from erosion. It is very important to note, based on this experience, the other farmers are also now moving to apply soil conservation ridges in their lands.



1.1.7 Issues emerging for project interventions

1.1.7.1 Crop damages

- ❖ *Northern and North-Central provinces have reported that the quality of seeds they have received from DOPA is not at the expected level. Having had some discussions, the problem was solved.*
- ❖ *Less germination (10%) in some crops has reported from the North-Central and Northern provinces.*
- ❖ *A fungus attack has appeared in red onion plots in the Mullaitivu District.*
- ❖ *Crop clinics have been conducted to identify pest attacks and fungus diseases in several locations.*

1.1.7.2 Delay in obtaining data for reporting progress from line agencies

- ❖ *The project has already provided formats for reporting the performances of the line agencies such as Provincial Dept. of Agriculture (PDOA), Dept. of Agrarian Development (DAD) and Provincial Dept. of Irrigation (PDOI) which are providing information on crop cultivation, tank rehabilitation, and modernization of agrarian service centers and so on. It seems these procedures are not followed as expected and the agencies need to pay more attention to this matter. The delay in obtaining lists of farmers for ongoing agricultural programs has often become a problem in many provinces. This has hindered the reporting about the beneficiary involvement in the project interventions to the donor agencies as well as the Ministry of Agriculture.*

1.1.7.3 Damages caused by wild animals

The human-elephant conflict has become a common problem of the dry zone areas affecting both the elephants and the humans while causing damage to property and crops. During the PRA exercise, many farmers have raised their grievances about crop damages and threat to their lives from wild elephants and, requested the project to install electric fences to protect their lives and crops.

Though the human-elephant conflict seems like the main topic, other wild animals are also affecting crops of many farmers in the project areas. Other wild animals such as monkeys,

peacocks, wild bores and even herd of cattle in some areas caused a considerable crop production losses and, a permanent solution is demanded to these problems too.

1.1.8 Climate-Smart Nutritional Sensitive Home Gardening Program

This home gardening program has been initiated to assure food security in the country. The country may face a food shortage mainly due to the limitation of food imports and also due to its deprived financial status.

This sub-project - Climate Smart Home Gardening Program is to be implemented in 11 hotspots of CSIAP in line with the “Saubahgya Gewaththa” program introduced by the Ministry of Agriculture through the establishment of 2695 self-sufficient home gardens.

2695 home gardens have so far been identified and the targeted home gardens extent is at least ¼ acre plot of land. It varies according to the size of home gardens available with the beneficiary.

This program is mainly targeted only marginalized women farmers who are excluded from the society.

Sub-project proposal of the CSNSHG has been prepared by the Agriculture Extension Specialist with the collaboration of DPD staff. Initial steps have been taken to implement the program.

The estimated cost of the CSA Nutritional Home Garden Program: Rs.66.94 Mn

Expenditure as at 31st Dec 2020: Rs.38.80 Mn (58%)

Table 11: Current status of Home Garden as at 31st March 2021

District	Home Garden (Target)		No of PGs	Training Programs conducted	Crop details (plants & equipment Distributed)			Production			
	No of gardens	ha			Vegetable Seed Packets	Fruit plants	Equipment Distributed	harvested (kg)	Own consumption (kg)	sold (kg)	Income received(Rs.)
Kurunegala	600	60	24	24	3600	3000	5400 items	24,925	11,216	3,739	224,340.00
Puttalam	150	15	6	6	900	750	1350 items	6,231	2,804	1,035	67,275.00
Anuradhapura	325	32.89	13	16	3050	2275	325 items	5,687	2,275	3,412	187,660.00
Polonnaruwa	100	10.12	4	8	1000	700	100 items	2,304	823	1,481	91,822.00
Kilinochchi	150	37.5	6	8	10 packets & 3 planting materials	5 grafted plants	8 items	5,400	3,240	2,160	129,600.00
Mullaitivu	250	62.5	13	39	10 packets & 3 planting materials	5 grafted plants	8 items	11,160	6,696	4,464	267,840.00
Trincomalee	380	38.46	16	17	3105	1725	345 items	95,565	66,896	28,669	860,085.00
Batticaloa	200	20.24	4	8	1800	1000	200 items	55,400	38,780	16,620	498,600.00
Ampara	240	24.3	12	24	2160	1200	240 items	66,480	46,536	19,944	598,320.00
Moneragala	135	13.66	9	13	135	945	1215 items	7,574	4,544	3,029	350,482.00
Hambantota	165	16.7	11	34	165	1155	825 items	3,102	2,327	776	325,875.00
Total	2695	331.37	118	197	15935	12760	10016	283,828	186,137	85,329	3,601,899
%									65.6	30.1	

Remarks:

Northern Province: Approximately 154 beneficiaries reported that their home gardens were fully/partially damaged by continuous rain received at the end of 2020 and some crops were affected by pests.

Southern province: All home garden owners have started their second generation of crops and renewed the gardens with new practices. HG Producer Groups have jointly conducted a small trade fair to sell their products. Also, they produce their own seeds for their home gardens.

North-Western province:

Next generation of crop cultivation has been started in both the Kurunegala and the Puttalam districts. 9970kg and 2490kg have been shared with neighbors in the two districts respectively.

Uva province: Home garden program is continuing with their own seed production and the DPD office act with close coordination, capacity building and monitoring.

Table 12: Production & Income – Home garden program

District	Amount harvested (kg)	Own consumption (Kg)	Sold (Kg)	Income received (Rs.)
Kurunegala	24,925	11,216	3,739	224,340.00
Puttalam	6,231	2,804	1,035	67,275.00
Anuradhapura	5,687	2,275	3,412	187,660.00
Polonnaruwa	2,304	823	1,481	91,822.00
Kilinochchi	5,400	3,240	2,160	129,600.00
Mullaitivu	11,160	6,696	4,464	267,840.00
Trincomalee	95,565	66,896	28,669	860,085.00
Batticaloa	55,400	38,780	16,620	498,600.00
Ampara	66,480	46,536	19,944	598,320.00
Moneragala	7,574	4,544	3,029	350,482.00
Hambantota	3,102	2,327	776	325,875.00
Total	283,828	186,137	85,329	3,601,899.00
%		65.6	30.1	

Home garden beneficiaries have consumed 65.6% and sold 30.1% of their production. Balance 4.3 % includes seeds and post-harvest losses. An assessment of home garden program is being done by the Social Safeguard Team of the project.

Commented [WU1]:

Figure 4: Home gardens in CSIAP



Siyambalagaswewa – Yodakandiya (South)



Unawatuna - Buttala (Uva)



Moragaswewa - Hingurakoda (NC)



Yodakandiya (South)



Home Garden – Kilinochchi



Weed control in Chilies cultivation NW



Ehetuwewa - Kurunegala



Input distribution among home gardeners

Significant achievements – Home Garden

The Success Story of Bundala – Southern province

Similar to the prevailing drought in many areas of the Hambantota district, Bundala village in the Bandagiriya Agrarian Development area also receives delayed monsoon.

Geographically, relatively flat terrain of the area enhances the vulnerability to sea water intrusion. Moreover, high evaporation rates along with short-term precipitation induces soil salinization. The enhanced soil salinity has become a major threat to water resources and agriculture productivity in Bundala.

CSIAP focuses on home garden cultivation since it is highlighted as a key climate change adaptation strategy and further it has boomed in Sri Lanka recently as people under COVID-19 epidemic situation were interested in growing their own fresh fruits and vegetables.



By providing opportunities for women to experiment with new climate resilient crops, income diversification and year-round fresh foods for domestic consumption, home garden development has viewed as a key adaptation strategy for households. Bundala home garden project provides an excellent prototypical model for promulgating home garden cultivation.

The project supported women by providing them with all necessary inputs and the extension services. The households bought non saline soil to use in grow-bags and used harvested rain water to watering their crops. Rain water harvesting tanks and grow-bags were provided by the project as a remedy for their major constraint the “salinity” in soil and water in the area.

They obtained high yields and expressed the role of women, supporting the community based adaptation to climate change. The project highlights “home gardens can be transformed to agricultural ventures” through improved management and systematic adoption of CSA practices.

Information of a Progressive Farmer – North-Western province

Program: **Climate Smart Nutritional Sensitive Home Garden.**

DS Division: Galgamuwa, ASC: Galgamuwa, GN Division: 76, Padipanchawa



“My name is Mallika Jayasinghe. My home garden is located in Padipanchawa Grama Niladhari Division. I came to know about the Climate Smart Irrigated Agriculture Project through the project officers who conducted an awareness program. We were provided with all the equipment needed for the home garden including seeds, water tanks, fruit plants and ground cover mats for weed control. Awareness programs were conducted on Climate Smart cultivation methods by the project officers. We did not use chemical fertilizer to grow crops. We applied compost fertilizer instead. We keep a portion of the harvest for. We are not at a stage to calculate the real income since the harvesting is going on. We are doing home gardening more successfully beyond our expectation. Those who did not get these benefits of the project are following the weeding method introduced in home gardening and they say that it is very successful. We would like to thank all those who introduced this method of cultivation at home”.

Success stories - Home Garden - Northern Province

1. Success stories

- ❖ Name of the person
- ❖ - Mrs. Vanathy Mayooran
 - Location North - Kilinochchi/ Poonakary (DS)/ Poonakary (ASC)/ Pallikuda (GN)/ Pallikuda
- ❖ Crop or activity involved
 - Climate Smart Nutrition Sensitive Home Gardening (CSNSHG) program
 - Provided Inputs
 - Vegetable seed packs – 10 Nos
 - Fruit plants – 5 Nos
 - Polythene & poly-mats
 - Home garden tools & equipment
- ❖ Adopted CSA Techniques
 - Potted agriculture
 - Family drip kit
 - Artificial mulching
 - IPM & IPNS

The home gardening package was provided by CSIAP with CSA technology. Potted agriculture, ginger and turmeric cultivation techniques were learned in first time and easily secured the crops in grow-bags during the flood time. Earned more than Rs.2000.00 - 3000.00 per month from November 2020 to date and spend for my daughter's education requirements.



The journey of women towards success

Home Garden Program of Trincomalee District- Eastern Province

The CSIAP provides support to establish or develop nutritional home gardens for women in Eastern Province. The project provides packs of seeds belonging to nine varieties of vegetable, five fruit plants (mango, guava, pomegranate, jak and orange) and home garden equipment such as black polythene, mulching mats, nursery trays, poly bags, water harvesting system, secateurs, hand shovel and, hand fork to each home garden.

Mrs. K.M. Somawathi, an enthusiastic home garden beneficiary of Paranamedawachchiya, Padavisripura DS Division is spending her leisure time to raise her home garden and getting organic vegetables for their daily family consumption. Further she said, she earns an extra income by selling the excess harvest to the nearest market in Pulmoddai. They can buy their other food requirements of the family with this extra income to fulfill the nutritional requirements. Her family members also support her to maintain this home garden.



Mrs. T. Munasinghe is a very respectable grandmother living at Morewewa South GN Division. Amid her daily house chores, she looks after her two grandchildren who lost their parents in a road accident. In addition, she is doing home gardening in a small scale. She said, the project helps her to enhance the home garden to get additional income to manage the educational expenses and provide nutritional foods to her grandchildren.



Another beneficiary of CSIAP EP, Mrs. M.Vijayasunthary said that she likes to grow vegetables in polybags, because Morawewa has hot weather and there is water scarcity during Yala season. Therefore, most of the farmers like to grow vegetable, ginger and turmeric in poly bags to use available water effectively. She is getting daily income around Rs.800 - 1000 and spends it for her child's education and settle the loan she has taken for her husband's heart surgery. She has enough land and is expecting more poly bags for further expansion of her home garden.



Mrs. N. Vasanthakumari is a woman-headed farmer, she has developed her home garden with the support of her son after the resettlement in Thennamaravady village situated under Pulmoddai ASC Division in the year of 2009. She gets vegetables for their daily consumption and sells the surplus to her neighbors. There is a high demand for vegetables among the villagers because the nearest market is 20km away from the village. Now she has motivated to expand her cultivation. Her son has designed mother's home garden effectively. He has fixed a drip irrigation system for poly bags by using water harvesting system and has developed a support for climbers by using old cloths and manages a good landscaping system.





Another beneficiary is Mrs. G. Marina Jeyamani. She practises mulching for effective use of water. She likes to do the mulching practices because it mainly preserves water, prevent plants from wilting from excess heat and easy to control weeds. She also gets vegetables for the family consumption and earns an extra income by selling the surplus to the villages.

1.1.12. Mid-Season (Intermediate Season) Cultivation

The main objective of the sub-project is to support the selected farmers in the hotspot areas of nine districts to increase the production of mung bean (green gram) and cowpea by around 400 tons and thereby increasing their annual income while contributing to the national food security.

Specific Objectives of the Sub-project are:

- Establish cultivation area of around 646.15 ha in the command areas of tanks in the hotspot areas of nine districts during the Midseason in collaboration with the PDOA.
- Form and strengthen Producer Groups and help enable them to get involved in the cultivation of mung bean and cowpea.
- Assist farmers by providing key agricultural inputs to produce quality mung bean in 598.15 ha and cowpea in 48 ha.
- Promote climate-smart agriculture practices among members of the Producer Groups.

The sub-project is designed to promote the Midseason cultivation of short duration field crops among the farmer community in hotspot areas of eight districts in the island. This covers an area of more than 851.8 ha. Farmers who will be involved in the project are familiar with the cultivation of Midseason crops and have been involved in mung bean/cowpea cultivation.

Only eight districts are involved in the Mid-season cultivation. Two districts from Northern Province - Kilinochchi and Mullaitivu and; Ampara district in the Eastern Province are not involved in the program. Sufficient water is not available in small tanks in Northern Province to start the Mid- Season immediately after Maha season. Though a little water is left in minor tanks and it would be utilized for domestic purposes and animals.

2185 beneficiaries have been targeted for the Mid-Season cultivation. By the end of 30th November, 11,578.7kg of mung bean and 740kg of cowpea seeds have been distributed among 1431 farmers, consisting of 891 men and 540 women. 437.45 ha of mung bean and 47.7 ha of cowpea have been harvested and, 352.6 MT of mung bean and 37.2 MT of cowpea have been produced.

Table13: Status of Mid-Season Cultivation

Province	District	Target (Ha)	Land prepared (Ha)	Seeds distributed (KG)		Other inputs Supplied (Liquid Fertilizer - litres)		The crop planted (Ha)		Harvested (MT)		No of Beneficiaries	
				Mung bean	Cowpea	Mung bean	Cowpea	Mung bean	Cowpea	Mung bean	Cowpea	M	F
Southern	Hambantota	262.35	137.85	3405	-	657	-	137.85	-	105.7	-	123	50
	subtotal	262.35	137.85	3405	-	657	-	137.85	-	105.7	-	123	50
Eastern	Batticaloa	14.4	30	110	743.2	106	600	4.2	25.7	3.6	21.8	89	35
	Trincomalee	96	48.8	673.5	550	170		26.8	22	16.5	15.4	98	124
	subtotal	110.4	78.8	783.5	1293.2	276	600	31	47.7	20.1	37.2	187	159
North western	Kurunegala	37.6	37.6	940		Purchased but, not issued		37.6		20.8		183	97
	Puttalam	4.8	-	--			--	-	-	-	-	-	-
	subtotal	42.4	37.6	940		-		37.6		20.8		183	97
North central	Anuradhapura	160	186	4650		464	-	186	-	165	-	269	121
	Polonnaruwa	40	14	350		36	-	14	-	13	-	64	36
	subtotal	200	200	5000		500		200		178		333	157
Uva	Moneragala	31	31	777		155	0	31		28		65	77
	subtotal	31	31	777		155	0	31		28		65	77
	Total	646.15	485.25	10,905.5	1293.2	2984	600	437.45	47.7	352.6	37.2	891	540

Success story of Mid-season Cultivation - Southern Province

Controlled yield of the North-Central Province is higher than the Demo yield of the area, because farmers of the Demo plots had done mung bean cultivation for the first time and not even applied liquid fertilizer.

As well as in the other dry zone areas in the Hambantota district, farmers in the vicinity of Thambarawawewa in Yodakandiya Agrarian Development area are facing extreme weather conditions especially drought that arises as a consequent of climate change.

In the real sense of the word Climate Smart Irrigated Agriculture, the Project supports the farmers to enable to adapt Climate Smart technologies by increasing the efficiency of water and land-use. The Mid-season cultivation (This falls between Maha and Yala) is productive as the soil is fertile enough and does not require additional fertilizer and agro-chemicals. It provides the perfect time to grow organic field crops fast. Furthermore, legumes such as green grams enrich the soil with fertilizer for next season and ensure the sustainability of the practice.

The Mid-season cultivation of 2020 was successfully carried out by the farmers in Thambarawawewa even amidst the COVID-19 epidemic.



CSIAP Southern Province provided green gram seeds to “Pussadewa” Farmer Organization and carried out awareness programs to educate farmers to get the most successful results by the “process of mobilizing farmers”.

As a result, all 33 farmers in Thambarawawewa cultivated 36.44 ha. Average yield obtained was 1111.5 per ha. Since the produce was in very high quality, the price that fetched per kg is between Rs.300 -335.

The harvest gained from the Mid-season cultivation in 2020 bears evidence that such a method is an efficient and sustainable agricultural practice that works well to achieve Climate Smart objectives with ample benefits.

Soon after the paddy harvesting in Yala, mung bean and cowpea were grown in paddy fields in all the provinces except Northern Province. Reasonable yield was obtained from both crops in a short period of nearly 60 days ensuring additional income for farmers. Growing Mid-season by utilizing residual moisture is a practice to enhance the productivity of water in cascades increasing the cropping intensity. In some areas, farmers were reluctant to go for Mid-season crops due to the nuisance of stray cattle in paddy fields. It was noticed that by cultivating Mid-season the project produced an almost similar quantity of mung bean as compared to its Yala season harvest.



Mechanized processing of mung bean



Manual processing of mung bean

Table 14: Inputs given to farmers under five agriculture programs

<i>Type of Inputs</i>	<i>Unit</i>	<i>CVDP</i>	<i>COVID 19</i>	<i>Mid-Season</i>	<i>Home Garden</i>	<i>Maha 2020/21</i>	<i>Total</i>
<i>Seeds</i>	kg	18645	157075	12318		145978	334016
<i>Vegetable packets</i>	No				14600		14600
<i>Fruit plants</i>	No				12800		12800
<i>Equipment (Sprinkler, Drip Irrigation, water pumps)</i>	No	306					306
<i>Small equipment (Water Tank, Secateurs, hand fork, hand spade, watering cane. etc)</i>	NO				3010		3010
<i>Water -Hose</i>	Meters	20650					20650
<i>Farmers benefited</i>		628	6819	1431	2695	8325	19898

1.1.10 Formation Producer Societies (PSs)

A key element of the overall approach to the development of a business-oriented climate-smart irrigated agriculture and participation of farmers in profitable value chains would be the mobilization, organization and capacity building of small and marginal producers. The focal point of building grassroots organizations of producers would be Producer Groups (PGs) to be promoted by the project based on common agricultural livelihoods.

Table 15: Summary of Formation Producer Societies (PSs) as of 31st Dec 2020.

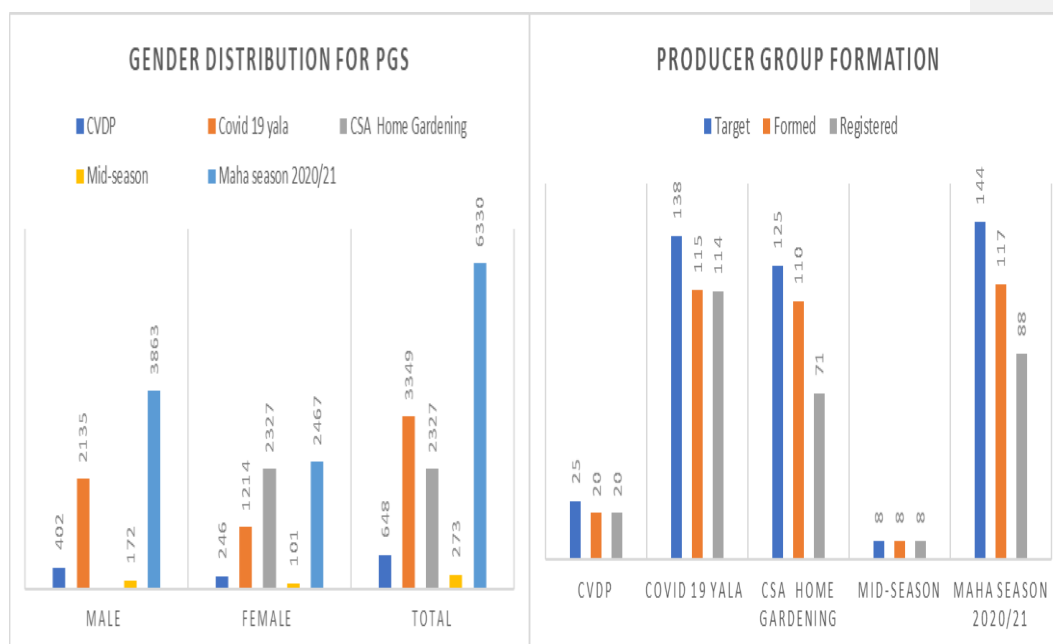
District	Subject/Activity	Producer societies			Beneficiaries		
		Target	Formed	Registered	Male	Female	Total
Kurunegala	Cluster Village Development Program (CVDP)	7	1	1	22	19	41
	COVID-19 Yala program	20	-	-	0	0	0
	CSA Nutritional Home Gardening	30	24	24		600	600
	Maha season 2020/21	35	31	31	646	422	1,068
	Sub total	92	56	56	668	1,041	1,709
Puttalam	Cluster Village Development Program (CVDP)	2	2	2	37	20	57
	COVID-19 Yala program	2	2	2	0	0	0
	Nutritional Home Gardening	10	6	5		150	150
	Maha season 2020/21	6	6	6	117	55	172
	Sub total	20	16	15	154	225	379
	Total	112	72	71	822	1,266	2,088
A'pura	Cluster Village Development Program (CVDP)	2	3	3	54	34	88
	COVID-19 Yala program	27	28	28	489	282	771
	CSA Nutritional Home Gardening	12	9	9		245	245
	Ranorawa agri program	10	6	6	44	101	145
	Thirappane FFS	1	1	1	11	23	34
	Mid-Season	3	3	3	36	48	84
	Sub Total	55	50	50	634	733	1,367
P'naruwa	Maha 2020/21	30	27	27	594	480	1074
	Cluster Village Development Program (CVDP)	2	2	2	32	29	61
	COVID-19 Yala program	2	2	2	29	17	46
	CSA Nutritional Home Gardening	6	6	6		96	96
	Sub Total	40	37	37	655	622	1,277
	Total	95	87	87	1289	1,355	2,644
Kilinochchi	Cluster Village Development Program (CVDP)	1	1	1	19	15	34
	COVID-19 Yala program	5	5	5	79	19	98
	CSA Nutritional Home Gardening	6	6	3	-	86	86
	Others/paddy Etc.	2	2	2	19	1	20

	Maha season 2020/21	1	1	1	37	12	49
	Sub Total	15	15	12	154	133	287
Mullaitivu	Cluster Village Development Program (CVDP)	1	1	1	11	9	20
	COVID-19 Yala program	7	7	7	100	92	192
	CSA Nutritional Home Gardening	13	12	2	-	265	265
	Others	3	2	1	11	16	27
	Maha season 2020/21	7	3	-	50	10	60
	Sub total	31	25	11	172	392	564
	total	46	40	23	326	525	851
Trincomalee	Cluster Village Development Program (CVDP)	2	2	2	51	19	70
	COVID-19 Yala program	1	1	0	34	15	49
	CSA Nutritional Home Gardening	16	15	4	-	345	345
	Maha season 2020/21	8	8	3	458	201	659
	Sub total	27	26	9	543	580	1123
Batticaloa	Cluster Village Development Program (CVDP)	1	1	1	31	19	50
	COVID-19 Yala program	8	4	4	-	200	200
	Maha season 2020/21	5	5	5	833	352	1185
	Sub total	14	10	10	864	571	1435
Ampara	Cluster Village Development Program (CVDP)	3	3	3	92	58	150
	COVID-19 Yala program	5	5	5	148	52	200
	CSA Nutritional Home Gardening	12	12	-	-	240	240
	Maha season 2020/21	15	15	6	659	577	1236
	Sub total	35	35	14	899	927	1826
	Total	76	71	33	2306	2078	4384
Moneragala	Cluster Village Development Program (CVDP)	3	3	3	34	16	50
	COVID-19 Yala program	51	51	51	1096	443	1539
	CSA Nutritional Home Gardening	9	9	7	0	135	135
	Maha season 2020/21	23	9	-	163	134	297
	Sub total	86	72	61	1293	728	2021
Hambantota	Cluster Village Development Program (CVDP)	1	1	1	19	8	27
	COVID-19 Yala program	10	10	10	157	82	239
	CSA Nutritional Home Gardening	11	11	11	0	165	165
	Mid-season	5	5	5	136	53	189
	Maha season 2020/21	14	12	9	306	224	530
	CSA Model village	2	2	2	18	12	30
	Sub total	43	41	38	636	544	1180
	Grand Total	448	377	307	6631	6407	13038
	%		83.3	68.3	51	49	

Table 16: Summary of formation of Producer Groups

Activity	Formation of PGs			Gender Distribution		
	Target	Formed	Registered	Male	Female	Total
CVDP	25	20	20	402	246	648
COVID-19 Yala	138	115	114	2135	1214	3349
CSA Home gardening	125	110	71		2327	2327
Mid-season	8	8	8	172	101	273
Maha season 2020/21	144	117	88	3863	2467	6330
CSA Model village	2	2	2	18	12	30
Thirappane	1	1	1	11	23	34
Ranorawa	5	4	3	30	17	47
Total	448	377	307	6631	6407	13038

Figure: Gender Distribution for Producer Societies Figure: Formation of Producer Groups



Remarks:

Though all the beneficiaries were recorded as 19,898 for all agriculture programs implemented during the year 2020, only 13,168 were recorded under the Producer Societies as at Dec 2020.

North-Western: Producer Groups have not been established in the Kurunegala district for the COVID-19 Yala program but the agriculture program has implemented without forming the PGs.

Trincomalee district: One Producer Group of Yala program has been formed but was not registered, hence program was implemented outside the project area.

By the end of 31st Dec 2020, 401 PSs have been formed but only 268 PSs were registered (66.8%). Formation of PSs is more important, hence all seeds, micro-irrigation systems and other benefits go to the farmer through Producer Societies and this is the most important tool of the project for implementation and monitoring. It is revealed that at some locations, PGs are not operating as expected when resource mobilization. The PGs also play an important role as the main path of the marketing avenue.

Figure 5: Producer Society Formation in Provinces – Eastern Province



PS formation - Ampara



PS Formation - Hambantota

1.1.11 Formation of Social Audit committees (SACs)

Establishment of Social Audit Committees (SACs) is one of the monitoring tools to get beneficiaries involved in the project activities. These SACs will ensure;

- ❖ *Transparency and accountability of the project implementation.*
- ❖ *Certification of SACs is needed to release the final payment of contractor for completed sub-projects and, it will be a compulsory requirement.*
- ❖ *To make aware the misuse of funds against the approved specifications and its purposes is an offence.*
- ❖ *Providing relief and compensations to beneficiaries who are victims of the sub-projects.*
- ❖ *High-quality materials are used by the contractors.*
- ❖ *Watchful about the quality of construction.*
- ❖ *Mobilizing community members.*
- ❖ *Finally, keep recording of all the activities.*

CSIAP has already started the establishment of SACs in the field of tank rehabilitation, modernization of Agrarian Service Centers and Yala Agriculture Programs. Current status of formation of SACs is given below;

Table 17: Summary of the current status of Social Audit Committees (SACs)

Province	District	SACs Targeted	SAC Formed	to be formed	Field of SACs formed	No of Members		
						Male	Female	Total
Eastern	Trincomalee	6	6	0	ASC Modernization	28	15	43
	Batticaloa	3	2	1		10	-	10
	Ampara	4	3	1		16	05	21
	Subtotal	13	11	2		54	20	74
Northern	Kilinochchi	6	3	-	Modernization of ASC	16	5	21
	Mullaitivu	4	3	-		21	7	28
	Subtotal	10	6			37	12	49
Southern	Hambantota	2	2	-	Yala COVID	11	3	14
		4	4	-	ASC Modernization	15	13	28

	Subtotal	6	6			26	16	42
Northcentral	Anuradhapura	10	10	-	ASC Modernization	42	28	70
		3	2	1	Tank Rehabilitation	7	7	14
	Subtotal	13	12	1		49	35	84
Uva	Moneragala	6	3	3	ASC Modernization	10	11	21
	Subtotal	6	3	3		10	11	21
Northwestern	Kurunegala	43	35	8	ASC Modernization	36	25	61
		-		4	Tank Rehabilitation	13	09	22
	Puttalam	15	15	-	ASC Modernization			
	Subtotal	58	50	12		49	34	83
	Total	106	88	18		225	128	353

The Contribution to National Production

Table-18: Crop-based National Production under CVDP, COVID & Mid-Season & Maha program

Crop	National Requirements (Metric tons)	Actual Production (Metric tons) 2020					% National Contribution	Total cost (Rs. Mn)	Total Value of the production (LKR)
		CVDP	COVID-19 Yala	Mid-Season	Maha season 2020/21	Total production			
Groundnut	30000	171.88	1015.9	-	1093.51	2281.29	7.6	139.613	391,313,221.95
Mung bean	28000	-	211.2	352.6	114.03	677.83	2.4		84,370,829.44
Cowpea	20000	60	276.6	37.2	115.56	489.36	2.4		86,537,805.26
Chilies -raw	500000	-	355.7	-		355.7	0.1		134,002,000.00
Maize	25000	-	167.7	-	6875.78	7043.48	28.2		70,483,400.25
Soya Bean	80000	-	52	-		52	0.1		6,240,000.00
Red Onion	14000	27	420.4	-		447.4	3.2		49,272,000.00
Kurakkan	25000	-	3.7	-	45.77	49.47	0.2		10,382,986.67
Black gram	25000	-	15.2	-	309.31	324.51	1.3		19,671,656.67
Sesame/Gingerly	12000				27.41	27.41	0.23		12,053,761.13
Total	-	258.88	2518.4	389.8	8581.37	11748.45	-	139.613	864,327,661.37

The COVID-19 pandemic broke out at the end of 2019 and the export of food would limit in the future not only due to the shortage of food items in the international market but also to the unhealthy financial status of the country. Under these circumstances, the Government of Sri Lanka has launched **Saubhagya National Food Production Drive** persuading the cultivation of all food crops. To face this situation, the

Presidential Task Force (PTF) which was established to fight the COVID-19 has declared the promotion of food crops as an urgent need and it has been given priority in the country today.

These programs launched in line with the Ministry of Agriculture in promoting food crops cultivation in 2020 Yala season to overcome any possible food shortage that could occur due to the continuing pandemic. Above table shows how the CVDP, COVID Yala program, Mid-season and Maha season 2020/21 have contributed to the National food production drive launched by the Government of SL. Total production has shown as 11748.45 metric tons and the value of the total production has been reported as Rs.864,327,661. Expenditure of the all four agriculture programs have been reported as Rs.139.61 Mn.

1.1.15 ECONOMIC ANALYSIS of CSIAP Programs & its Contributions

.13.1 Economic benefits.

The main economic benefits from the project are expected to come from:

- (a) Increasing the area under production and crop productivity through improved irrigations systems and the farmers adopting to climate-resilient technologies;
- (b) Diversification from food grains into climate-adaptive, higher-value agriculture crops; and
- (c) Improved post-harvest management, value addition, and marketing.

In addition to the increase in productivity and production of higher-value crops, it is expected that establishing Producer Societies and facilitating private sector links will lead to increased income for beneficiaries due to;

- ❖ Fetching higher prices for agricultural production through better aggregation and new market channels, resulting from improved market information;
- ❖ Potentially reduced cost of inputs as a result of procurement by the PSs in bulk; and
- ❖ Increased value addition through Common Service Centers (CSCs/ASCs) established by the PGs for postharvest activities, including aggregation, cleaning, grading, sorting, and processing.
- ❖ It is expected that employment will be generated through the increased demand for wage workers to contribute in handling, processing and marketing. The investments in irrigation modernization and rehabilitation works will generate further employment opportunities during the project implementation.

(Source: PAD)

CSIAP has contributed to national emergency response and economic revival in two major ways. Firstly, CSIAP has contributed directly by ***immediately reallocating LKR5, 669 (US\$30) million to National Emergency Response Program***. Secondly, through its production programs and project activities, CSIAP has also contributed significantly towards the achievement of the production, as an import substitution and economic revival goals of the GOSL. The production contributions are very significant and substantial, especially when considering the COVID-19 context and its unexpected impacts in terms of delays, adjustments and rescheduling of many crucial CSIAP activities.

Production Programs: CSIAP has implemented five major programs at a cost of LKR325 (US\$ 1.72) million during 2020 and these programs are expected to continue with expanded coverage during 2021 as well. These programs prioritized food production based on climate-smart agriculture (CSA) technologies and practices, supported ongoing government initiatives, promoting summer and inter-season cultivation, and will build household income avenues and nutritional security. These programs are: Cluster Villages Development Program (CVDP), COVID Yala-2020 Program, Inter-season Cultivation Program, Maha-2020 Cultivation Program and Climate-Smart Nutrition-Sensitive Home Garden Program (CSNSHG).

CSIAP is trying to ensure the climate and disaster resilience of smallholder agriculture while supporting the national goals of food and nutritional security, income and livelihood generation, self-reliance, and revival of the rural economy. The CSIAP programs have supported smallholder farmers to produce 15 crops prioritized by the GOSL in terms of their food security, farm income and self-reliance implications by providing subsidized seeds/planting materials (free for farmers with 0.5 ac) selected inputs, including water-saving technologies, extension services, capacity building and knowledge transfers through Farm Field Schools and demo farms, etc.

Infrastructural Program: More importantly, the production programs have also received supports and synergies from the marketing and infrastructure programs being implemented by CSIAP in terms of post-harvest services, storage and marketing of products, rehabilitation of rural roads, modernization of extension services, and hiring of farm machineries. Besides the

production impacts, these infrastructural programs - thanks to the investments in constructions, renovations, and road building - have also contributed to rural economic revival by generating significant level of non-farm economic activities in rural areas. During 2020, these programs have directly benefited 6,762 farmers (33% women) and most of them have adopted CSA technology and practices. Overall, CSIAP has reached 8,515 farmers (31% women) in terms of project agriculture assets and services.

1.13.2 Contribution to National Production: The estimated contribution of CSIAP to national production including the money saved on substitutions of imports are presented in Table-17 for selected crops. While the results in Table-17 are self-explanatory, it is necessary to note that these contributions should be taken only as indicative and approximate, particularly given the extreme data constraints within which the estimates were made. Given this, the CSIAP outputs contribute significantly to national production targets during 2020. The contributions vary from 8% in the case of groundnut to 0.7% for chilies. CSIAP is expected to contribute significantly more to the achievement of national production targets in 2021 with the contributions varying from 14% for groundnut to 1% for chilies. Notably, since groundnut cultivation program has the aim of training farmers in seed production, its output is particularly significant not only in terms of value but also in the future production.

Contributions to Self-reliance: The contributions of CSIAP to import substitution are very significant in the case of few key crops such as groundnut, cowpea, and green gram. The import substitution contributions of groundnut, for instance, is expected to increase from 54% in 2020 to 94% in 2021. The corresponding figures for cowpea are 13% in 2020 to 23% in 2021 and for green gram are 6% in 2020 to 11% in 2021. Although the import substitution contribution of maize is shown to be high, lack of information on the relative shares of grain and baby corn in total maize production makes inference to be less certain.

Table 19: CSIAP Contributions to National Production and Import Reduction: 2020-21

No	Crops	CSIAP Output (MT)		National Output in 2018 (MT)	National Production Target (MT)	Total Import (MT) ^c	2020 CSIAP Output as % of			2021 CSIAP Output as % of		
		Realized in 2020 ^a	Expected in 2021 ^b				2018 National Output	National Production Target	Total Import ^d	2018 National Output	National Production Target	Total Import ^d
1	Groundnut	2,468	4,318	27,602	30,000	3,080	8.94	8.23	80.12	15.65	14.39	93.94
2	Green Gram	676	1,183	9,856	28,000	10,704	6.86	2.41	6.32	12.00	4.23	11.05
3	Cowpea	507	888	11,180	20,000	3,955	4.54	2.54	12.83	7.94	4.44	22.45
4	Maize ^{ef}	8,877	15,535	2,70,041	2,50,000	28,066	3.29	3.55	31.63	5.75	6.21	55.35
6	Black Gram	395	692	11,852	70,000	11,840	3.33	0.56	3.34	5.83	0.99	5.84
5	Red Onion	447	783	61,073	80,000	15,253	0.73	0.56	2.93	1.28	0.98	5.13
7	Chili	360	630	79,003	5,00,000	46,726	0.46	0.07	0.77	0.80	0.13	1.35

Notes: ^aCovers outputs from all four CSIAP programs implemented in 2020, i.e., Cluster Village Development Program, COVID Yala Program, Mid-season Cultivation Program, and Maha Cultivation Program 2020.

^b2021 outputs are calculated based on the continuation of 2020 production levels and an addition of 75% new output levels from the expanded production programs during 2021. In view of data constraints, the years of import data vary by crops, i.e., 2018 for red onion and black gram, 2019 for groundnut, and 2020 for rest of the crops. ^dWhile calculating the import share of groundnut, the CSIAP groundnut output is converted using a shelling percentage of 67% (See Raza, et al., 2017: Table-3).

^eAs per AgStat data, 2018 output of Maize exceeds national target. This needs to be checked.

^fMaize figures need care in interpretations, as significant, but unknown, share covers sweetcorn / baby corn output.

Sources:

(1) CSIAP Field Data.

(2) Socio-Economic Planning Centre, 2019, *AgStat-2018, Vol: XVI, Agricultural Statistics*, Department of Agriculture, Peradeniya, Sri Lanka.

(3) <https://www.tridge.com/intelligences/peanut/LK> (for 2018 groundnut output and 2019 groundnut import).

(4) Raza, Asif, et al., 2017, "Evaluation of Groundnut varieties for Agro-ecological Regions of Malak and Division", *International Journal of Environmental Sciences & Natural Resources*, 5(5): DOI:10.19080/IJESNR.2017.05.555671

Contributions to Value Addition and Rural Economic Revival: The likely contributions of CSIAP output to value addition and economic revival can be inferred from Table-19, which gives the value of CSIAP outputs—both in 2020 and in 2021—in terms of farm-gate and retail prices as well as on Free-on-Board (FOB) prices/values of selected crops. Although these prices correspond to their average levels between 2017 and 2018 (and 2018 and 2020 in the case of FOB), they can still be helpful to estimate the values of CSIAP outputs. As seen in the table ***the farm-gate value of CSIAP output in 2020 was LKR1,208 (US\$6.39) million while its retail value was LKR2,192 (US\$11.60) million. The corresponding figures for 2021 are LKR2,113 (US\$11.18) million, its retail value was LKR3,836 (US\$20.30) million.***

Although direct information on actual value addition is very difficult to obtain, it is possible to indirectly, though roughly, estimate the same as the difference between farm-gate and retail values of CSIAP outputs. While such a difference is likely to include the aggregate margins obtained by supply chain actors at different levels, it also captures values added between farm-gate and retail stages. ***Thus, the likely extent of value addition (with margins) associated with CSIAP output in 2020 to be about LKR984 (US\$5.21) million and that in 2021 to be about LKR1,723 (US\$9.12) million.*** In view of the multiplier effects usually generated by the economic

activities associated with such a magnitude of value addition, it is rather reasonable to expect the production programs of CSIAP to have contributed significantly to rural economic revival in 2020 and 2021.

Table 20. CSIAP Contributions to Value Addition and Economic Revival: 2020-21

No	Crops	Avg Prices / Values at ^a			Value of 2020 CSIAP Output at			Value of 2021 CSIAP Output at		
		Farm gate Level (LKR/Kg)	Retail Level (LKR/Kg)	FOB Level (LKR/Kg)	Farm gate Level (Mil LKR)	Retail Level (Mil LKR)	FOB Level (Mil LKR)	Farm gate Level (Mil LKR)	Retail Level (Mil LKR)	FOB Level (Mil LKR)
1	Groundnut ^b	160.41	160.41	189.25	395.84	395.84	467.01	692.73	692.73	817.27
2	Green Gram	178.70	225.18	158.37	120.81	152.24	107.07	211.42	266.41	187.38
3	Cowpea	181.74	223.13	136.46	92.21	113.21	69.23	161.36	198.11	121.16
4	Maize ^c	45.39	135.38	43.42	402.89	1,201.80	385.42	705.06	2,103.14	674.49
6	Black Gram	143.80	326.23	109.54	56.82	128.91	43.29	99.44	225.59	75.75
5	Red Onion	142.35	230.62	97.97	63.69	103.18	43.83	111.45	180.56	76.70
7	Chili	209.06	269.19	276.86	75.26	96.91	99.67	131.71	169.59	174.42
Total (mil LKR)					1,207.52	2,192.08	1,215.53	2,113.17	3,836.14	2,127.17
Total (mil US\$) ^d					6.39	11.60	6.43	11.18	20.30	11.26
Value Added + Margins (mil US\$)					5.21			9.12		

Notes: ^a Farm-gate and retail prices are the averages of 2017 and 2018 price levels and FOB prices/values are the averages of figures for 2018 and 2020. ^bIn case of groundnuts, since retail prices are unavailable, they are taken to be equal to 20% adjusted corresponding retails prices. Also, its FOB value, unlike other cases, is the average of 2019 and 2020 values. ^cMaize figures need care in interpretations, as significant, but unknown, share covers sweetcorn/baby corn output. ^dBased on the exchange rate: US\$ = LKR 188.96.

Sources: (1) Socio-Economic Planning Centre, 2019, *AgStat-2018, Vol: XVI, Agricultural Statistics*, Department of Agriculture, Peradeniya, Sri Lanka.

(2) <https://www.tridge.com/intelligences/peanut/LK> (for 2019 groundnut FOB value).

The contributions of CSIAP to rural economic revival go far beyond its production programs and their value addition impacts in view of its major investments in agriculture, marketing, and water-related rural infrastructure programs. These programs cover not only the construction of grain storages, modernization of Agrarian Service Centers (ASC), creation of farm machinery hiring unit and paving of rural roads but also the rehabilitation and expansion of water storage and distribution networks, particularly targeting the most vulnerable hotspot regions across the country. Besides their direct roles in supporting agricultural production with a strong rural infrastructure, these infrastructural investments also contribute to rural economic revival by pump resources and adding purchasing power.

While tank rehabilitation programs could not be implemented much during 2020 due to delay in completing key tasks such as hydrological studies and engineering surveys, other infrastructural programs have contributed significantly during 2020 with their economic effects expected to snowball more in coming years. However, tank rehabilitation programs are expected to contribute significantly to the economic revival initiatives of GOSL during 2021 since 216 tanks are planned for rehabilitation during 2021 with an estimated investment of LKR2,099 (US\$11.11) million. Besides the fresh investment of LKR508 (US\$ 2.69) million in CSA-centered production programs, an additional LKR 804 (US\$ 4.26) million is also planned to invest in other infrastructural and institutional development during 2021. All these programs contribute to rural economic revival both directly through their impacts on agricultural production and productivity and also indirectly by generating secondary and tertiary level economic activities.

(Source: Prof. Saleth & Mr. Manoharan TTL WB.)

1.1.16 Maha Season cultivation Program – 2020/21

The following crop cultivation Program has been planned for 2020/21 Maha program by the respective provinces

Table 21: Planned Maha Season cultivation Program – 2020/21

No	Province		Northern	Eastern	North Central	North Western	Uva	Southern	TOTAL
	Crop	Unit	Kilinochchi & Mullaitivu	Trincomalee, Batticaloa & Ampara	Anuradhapura & Polonnaruwa	Kurunegala & Puttalam	Moneragala	Hambantota	
1	Maize	ha	60	912	880	120	80	50	2102
		Farmers	300	1060	1680	450	200	95	3785
2	Groundnuts	ha	170	700	56	100	80	48	1154
		Farmers	850	1995	175	350	200	80	3650
3	Cowpea	ha	40	280	6	24	20	0	370
		Farmers	400	410	15	130	50	0	1005
4	Black gram	ha	120	120	108	28	50	0	426
		Farmers	1200	350	235	160	125	0	2070
5	Green gram	ha	120	46	2	58	20	8	254
		Farmers	1200	200	10	280	50	22	1762
6	Sesame	ha	40	14	0	0	0	4	58
		Farmers	100	140	0	0	0	10	250
7	Chilies	ha	24	22	0	6.4	5	0	57.4
		Farmers	240	220	0	46	50	0	556
8	Red Onion	ha	20	0	0	0	30	0	50
		Farmers	200	0	0	0	150	0	350
9	Finger millet	ha		8.8	6	6.4	12	8	41.2
		Farmers	0	88	15	45	30	25	203
Sub Total OFCs		ha	594	2102.8	1058	342.8	297	118	4512.6
		Farmers	4490	4463	2130	1461	855	232	13631
11	Paddy	ha	480	0	108	60	100	4	752
		Farmers	1200	0	270	240	250	20	1980
12	Total	ha	1074	2102.8	1166	402.8	397	122	5264.6
		Farmers	5690	4463	2400	1701	1105	252	15611

Figure 6: Planned Crop Distribution of Maha season – Provincial basis Target (ha)

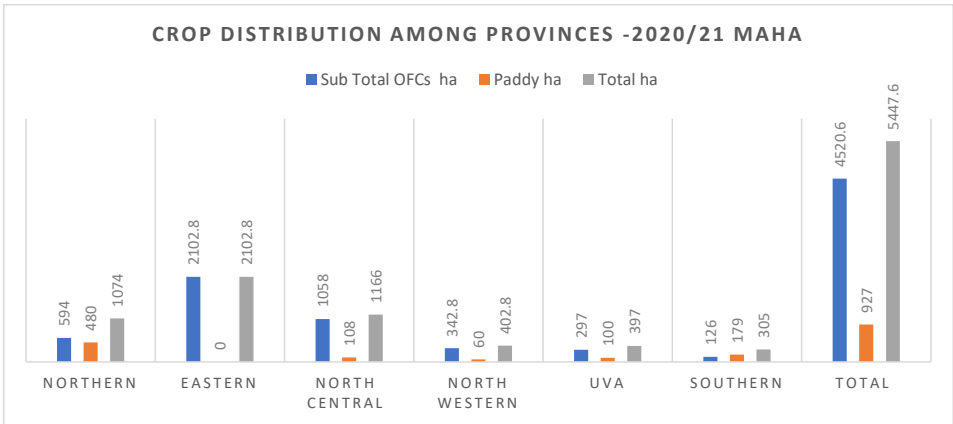
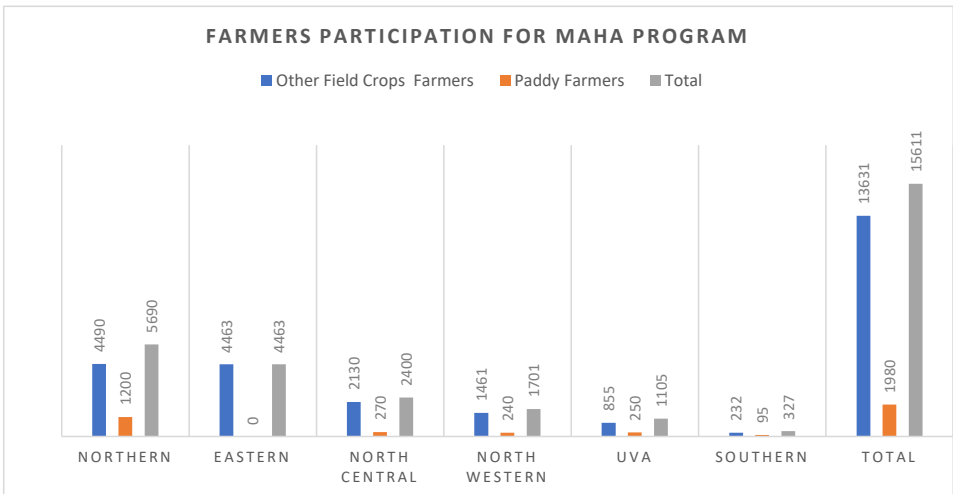


Figure-7: Planned Crop Distribution of Maha season – Provincial basis target (Farmers)



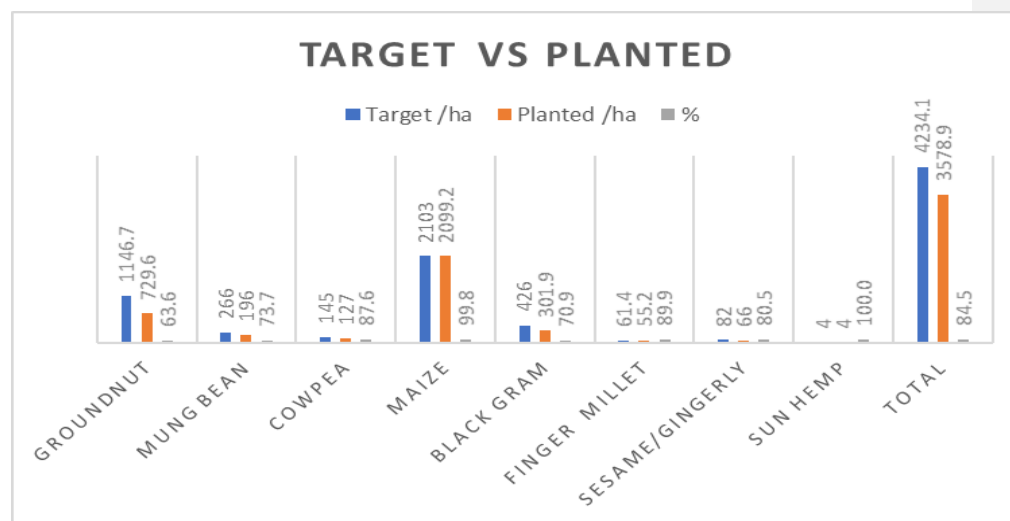
Note: District wise crop distribution is expected to submit up to the end of December 2020 after getting all updated crop details

Table 22: Current status of Maha season (Crop basis) as at 31st Dec 2020

Crop	Crop based Production Target							
	Target/ ha	Production Target (Metric tons)	Seed Issued (kg)	Planted/ha	%	Farmer Participation		
						Male	Female	Total
Groundnut	1146.70	1279.82	65174.00	729.60	63.63	1449	982	2431
Mung bean	242.00	255.10	4856.00	196.00	80.99	279	246	525
Cowpea	145.00	143.75	3286.00	127.00	87.59	267	130	397
Maize	2103.00	8709.70	26240.00	2099.20	99.82	2233	1419	3652
Black gram	370.00	380.40	8248.00	301.90	81.59	553	324	877
Finger millet	61.40	45.80	406.00	55.20	89.90	69	68	137
Sesame/gingerly	68.00	58.70	475.00	66.00	97.06	51	59	110
Sun hemp	4.00	3.20	200.00	4.00	100.00	0	5	5
Sub Total	4140.10	10876.47	108885.00	3578.90	86.44	4901	3233	8134
Paddy	1040		36662.5	111.8	10.75	132	50	182
Seed Paddy	8		180	2.8	35.00	8	1	9
Sub Total	1048		36842.5	114.6	10.94	140	51	191
Total	5188.10		145727.50	3693.50	71.19	5041	3284	8325

- ❖ Total extent targeted ha (OFC) : 4140.10
- ❖ Total seed issued kg : 108,885
- ❖ Total Planted Ha : 3578.90 (86.4%)
- ❖ Total production estimated (MT) : 10,876
- ❖ Total Farmers involved : 8134 (Male 4901 & Female 3233)

Figure-8 : OFC Target Vs. Planted (HA)



1.1.16.1 Current status of Maha season (Provincial basis)

1.1.16.2 Northern Province

Table-23: Current progress of Kilinochchi District

Crop	Northern Province (Kilinochchi)							
	Target/ha	Production Target (Metric tons)	Seed Issued (kg)	Planted/ha	%	Farmers		
						Male	Female	Total
Groundnut	90	153	9040	90.4	100.4	139	119	258
Mung bean	60	60	657	26.2	43.7	28	42	70
Cowpea	20	22	600	18.77	93.9	21	16	37
Maize	40	200	60	4.8	12.0	15	15	30
Black gram	40	40	400	13.33	33.3	37	24	61
Finger millet	4	6	20	2.8	70.0	3	4	7
Sesame/gingerly	20	16	100	13.33	66.7	4		4
Sub Total	274	497	10877	169.63	61.9	247	220	467
Paddy	200		20000					
Sub Total	200		20000					
Total	474	497	30877	169.63	35.8			

Table-24: Current progress of Mullaitivu District

Crop	Northern Province (Mullaitivu)							
	Target/ ha	Production Target (Metric tons)	Seed Issued (kg)	Planted/ha	%	Farmers		
						Male	Female	Total
Groundnut	110	187	718	71.8	65.3	124	68	192
Mung bean	60	60	1295	51.8	86.3	122	103	225
Cowpea	20	22	457	15.23	76.2	69	26	95
Maize	20	100	190	15.2	76.0	50	38	88
Black gram	80	80	2480	82.67	103.3	183	136	319
Finger millet	4	6	30	4	100.0	4	6	10
Sesame/gingerly	20	16	200	26.67	133.4	17	33	50
Sun hemp	4	3.2	200	4	100.0		5	5
Sub Total	318	474.2	5570	271.37	85.3	569	415	984
Paddy	280							
Sub Total	280							
	598	474.2	5570	271.37	45.4			
Province total	1072	971.2	36447	441	41.1	816	635	1451

- ❖ Farmers refuse to follow CSA techniques in paddy cultivation as dry sowing is common in this area during the Maha season and black gram seeds could not be distributed as per the request to Kilinochchi due to unavailability of seeds on time.
- ❖ Red onion and chilies will be distributed in Mid-January. At the same time, in some areas, farmers were less interested in certain crops, for example, maize and green gram in Kilinochchi and groundnut in Mullaitivu.

Seeds other than maize was obtained from SPMDC Kilinochchi for crop production and distributed under 50% subsidy to 1,451 beneficiaries through 10 Producer Societies (PS)s at Mullaitivu and six PSs at Kilinochchi.

The planned training and awareness programs could not be organized due to the 2nd wave of Corona virus epidemic. However, a training program on CSA practices was conducted.

Heavy rains caused by cyclone Buravi and Nivar:

Due to the heavy rain caused by cyclones Buravi and Nivar, about 68 ha of crop fields were damaged by 50% - 100%, and about 350 beneficiaries were affected.

Figure-9: Cyclone damages in cultivated lands in the Northern Province



Damages caused by cyclone Buravi and Nivar in the Northern Province



Rehabilitation of Roads

The Technical Evaluation Committee (TEC) for rehabilitation of Vannerikulam Agriculture road (7.73km) under Mandekkal Aru river basin has been completed by PDOI.

Evaluation report was recommended by PMU to award the contract to Ravee Enterprises for Rs. 29,816,235. SPP has been prepared and submitted to PMU to review for reconstruction of 10.01km of Agricultural Roads (Market Road) at Poonakary ASC at a cost of Rs.67.31 million.

Draft SPP along with all annexes including detailed design, drawings and estimate have been prepared by PID and submitted. Comments have been received from the WB for the rehabilitation of Veeramodaikulam.

1.1.16.3 Current status Eastern Province

Table-25: Current progress of the Eastern Province:

Crop	Crop Based Production Target (Trincomalee, Batticaloa & Ampara)							
	Target/ ha	Production Target (Metric tons)	Seed Issued (kg)	Planted/ha	%	Farmer Participation		
						Male	Female	Total
Trincomalee								
Groundnut	188	105	7000	70	37.2	271	92	363
Maize	172	802.8	2230	178.4	103.7	215	93	308
Black gram	48	59.5	850	34	70.8	43	19	62
Sub Total	408	967.3	10080	282.4	69.2	529	204	733
Batticaloa								
Groundnut	200	150	10,000	100	50.0	281	141	422
Mung bean	20	35	500	20	100.0	48	23	71
Cowpea	70	62	1550	62	88.6	128	51	179
Maize	240	1080	3000	240	100.0	362	139	501
Sub Total	530	1327	15050	422	79.6	819	354	1173
Ampara								
Groundnut	312	310.52	20701	207.2	66.4	314	292	606
Maize	500	2221.2	6170	493.6	98.7	340	322	662
Black gram	16	10.5	150	6	37.5	26	8	34
Finger millet	8.8	4	25	4	45.5	10	4	14
Sub Total	836.8	2546.22	27046	710.8	84.9	690	626	1316
Total	1774.8	4840.52	52176	1415.2	79.7	2038	1184	3222

Summary of Maha season

Trincomalee Target ha: 408	Planted ha : 282.4 (69.2%) Farmers 733
Batticaloa Target ha : 530	Planted ha : 422 (79.6%) Farmers 1173
Ampara Target ha : 836.8	Planted ha : 710.8 (84.9%) Farmers 1316
Total Target ha : 1774.8	Planted ha 1415.2 (79.7) Farmers 3222

Figure-10: OFC cultivation plots in the Eastern Province



Groundnut cultivation – Trincomalee (Maha Season)



Cowpea cultivation - Batticaloa



Maize cultivation - Gomarankadawala



Black gram cultivation - Batticaloa

1.1.16.3 Current status North-Central Province

Table-26: Current Progress of the North-Central Province as at 31st Dec 2020

Crop	North-Central Province (Anuradhapura & Polonnaruwa)							
	Target/ha	Production Target (Metric tons)	Seed Issued (kg)	Planted/ha	%	Farmers		
						Male	Female	Total
Anuradhapura								
Groundnut	56	100	100	20	35.7	41	11	52
Mung bean	2	2.5	50	2	100.0	6	4	10
Cowpea	6	7.5	50	6	100.0	13	7	20
Maize	852	3408	11440	915.2	107.4	863	422	1285
Black gram	108	108	2700	108	100.0	169	66	235
Finger millet	6	4.8	81	10.8	180.0	9	7	16
Sub Total	1030	3630.8	14421	1062	103.1	1101	517	1618
Paddy	270	1350	4500	55	20.4	21	6	27
Sub Total	270	1350	4500	55	20.4	21	6	27
Total/AD	1300	4980.8	18921	1117	85.9	1122	523	1645
Polonnaruwa								
Groundnut	8	14.4	400.00	8.00	100.0	14	8	22
Maize	28	112.0	350.00	28.00	100.0	63	31	94
Sub Total	36.00	126.40	750.0	36.00	100.0	77	39	116
Paddy	50.0	50.00	1.000.0	50.00	100	32	17	49.00
Sub Total	50.00	50.00	1.000.0	50.00	500.0	32	17	49.00
Total/PD	86.00	176.40	1.750.0	86.00	100	109	56	165
Grand total	1386	5157.2	20671	1203	86.80	1231	579	1810

Summary of Maha season

Anuradhapura OFC Target ha: 1030

Polonnaruwa Target ha: 36

Total Target ha: 1386

Planted ha : 1062 (103.1%) Farmers 1618

Planted ha : 36 (100%) Farmers 116

Planted ha : 1203 (86.80) Farmers 1810



Using weeder in paddy cultivation



Drum seeder for sowing



Maize cultivation



Paddy nursery

1.1.16.4 Current status North-Western Province

Table-27: Current Progress in the Kurunegala District

Crop	North-Western Province (Kurunegala)							
	Target/ ha	Production Target (Metric tons)	Seed Issued (kg)	Planted/ha	%	Farmers		
						Male	Female	Total
Groundnut	33	42.9	3480	26	78.8	20	15	35
Mung bean	8	5.6	100	4	50.0	2	4	6
Cowpea	8	6	100	4	50.0	2	3	5
Maize	80	280	1375	110	137.5	134	160	294
Black gram	23	18.4	50	2	8.7	3	6	9
Sesame/gingerly	2	1	15	0	0.0	2	3	5
Sub Total	154	353.9	5120	146.0	94.8	163	191	354



Cowpea cultivation (Maha) – Ehetuwewa



Maize cultivation (Maha) - Galgamuwa

Table-28: Current Progress in the Puttalam District

Crop	North-Central Province (Puttalam)							
	Target/ ha	Production Target Metric tons	Seed Issued (kg)	Planted/ha	%	Farmers		
						Male	Female	Total
Groundnut	20	26	1500	15	75.0	10	24	34
Cowpea	3	2.25	100	2.4	80.0	3	5	8
Maize	40	140	125	10	25.0	13	6	19
Black gram	5	4	118	5.9	118.0	6	14	20
Sub Total	68	172.25	1843	33.3	49	32	49	81
Total of the province	222	526.15	6963	179.3	80.8	195	240	435

1.1.16.5 Current status Uva Province

Table-29: Current Progress in the Uva Province as at 31st Dec 2020

Crop	Uva Province (Moneragala)							
	Target/ ha	Production Target (Metric tons)	Seed Issued (kg)	Planted/ha	%	Farmers		
						Male	Female	Total
Groundnut	75.7	85	7622	72.2	95.4	119	102	221
Mung bean	20	21	500	20	100.0	27	39	66
Cowpea	18	22	465	18.6	103.3	31	22	53
Maize	80	276	1000	80	100.0	114	104	218
Black gram	50	60	1500	50	100.0	86	51	137
Finger millet	11.6	11.7	90	6.6	56.9	13	23	36
Sub Total	255.3	475.7	11177	247.4	96.91	390	341	731
Paddy	100	12.8	266.5	5.2	5.2	8	3	11
Sub Total	100	12.8	266.5	5.2	5.2	8	3	11
Total	355.3	488.5	11443.5	252.6	71.1	398	344	742.0

Figure-10: Paddy transplanting by machine Waguruwela GND, Buttala ASC area - UVA Province



1.1.16.6 Current status Southern Province

Table-30: Current Progress of Southern Province as at 31st Dec 2020

Crop	Southern Province (Hambantota)							
	Target/ ha	Production Target (Metric tons)	Seed Issued (kg)	Planted/ ha	%	Farmers		
						Male	Female	Total
Groundnut	54	106	4863	49	90.74	116	110	226
Mung bean	72	71	1754	72	100.00	46	31	77
Maize	51	89.7	300	24	47.06	64	89	153
Finger millet	27	13.3	160	27	100.00	30	24	54
Sesame/gingerly	26	25.7	160	26	100.00	28	23	51
Sub Total	230	305.7	7237	198	86.09	284	277	561
Paddy	140	8.1	10896	1.6	1.14	71	24	95
Seed Paddy	8	17.5	180	2.8	35.00	8	1	9
Sub Total	148	25.6	11076	4.4	2.97	79	25	104
Total	378.00	331.30	18313.00	202.40	53.54	363	302	665

Figure-11: Maha Season cultivation (OFC & Paddy) in the Southern Province



Groundnut cultivation, Gonaleggawewa, Weerawila. Green gram cultivation, Samaguliya, Yodakandiya.



Paddy drum seeder demonstration at Beminiyawa

Parachute demonstration at Bundala

Table-31: Summary of the Provincial wise Cultivation Program - Maha 2020/2021

Province	District	Target ha	Planted ha	%	Total Beneficiaries		
					Male	Female	Total
Eastern	Trincomalee	408	282.4	69.2	529	204	733
	Batticaloa	530.0	422	79.6	819	354	1173
	Ampara	836.8	710.8	84.9	690	626	1316
	Sub total	1774.8	1415.2	79.7	2038	1184	3222
Northern	Kilinochchi	474	169.63	35.8	247	220	467
	Mullaitivu	598	271.37	45.4	569	415	984
	Sub total	1072	441	41.1	816	635	1451

Southern	Hambantota	378	202.40	53.54	363	302	665
	Sub total	378	202.40	53.54	363	302	665
Northcentral	Anuradhapura	1300	1117	85.9	1122	523	1645
	Polonnaruwa	86.0	86.0	100	109	56	165
	Subtotal	1386	1203	86.8	1231	579	1810
Uva	Moneragala	355.3	252.6	71.1	398	344	742
	Subtotal	355.3	252.6	71.1	398	344	742
Northwestern	Kurunegala	154.0	146.0	94.8	163	191	354
	Puttalam	68	33.3	47.6	32	49	81
	Subtotal	222	179.3	80.8	195	240	435
	Total	5188.10	3693.50	71.19	5041.00	3284.00	8325.00

Table-32: Total ha & Farmers Involved for Main Agriculture Programs in 2020

No	Program	Ha	Farmers	Cost (Rs. Mn)
1	CVDP	183	628	40.07
2	Under COVID Yala	1305	6819	36.94
3	Mid-Season	485.25	1431	14.02
4	Home garden Program	273	2695	38.80
5	Maha Season 2020/21	5188	8325	45.93
	Total	7434.25	19898	175.77

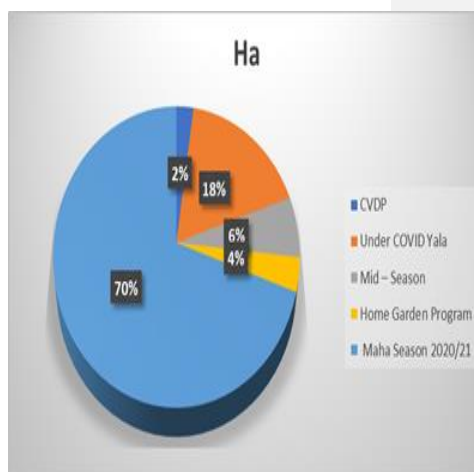


Table-33: Production Target & Achievements for OFC under all agriculture programs (2020)

Province	District	CVDP			COVID Yala			Mid-Season			Maha Season 2020/21			Total		
		Target ha	Actual grown ha	Actual Production (Met tons)	Target ha	Actual grown ha	Actual Production (Met tons)	Target ha	Actual grown ha	Actual Production (Met tons)	Target ha	Actual grown ha	Actual Production estimated (Met tons)	Target ha	Actual grown ha	Actual Production (MT)
NW	Kurunegala	8	5.8	9.8	145.90	133.56	185	37.6	37.6	20.8	154	148.5	353.9	345.50	325.46	570
	Puttalam	8	8	10	62.85	36.1	39.19	4.8			68	33.3	172.25	143.65	77.40	221
	Sub Total	16	13.8	19.8	208.75	169.66	224.19	42.4	37.6	20.8	222	181.8	526.15	489.15	402.86	791
NC	A'dhapura	20	20	42	241.2	241.2	412.3	160	160	165	1030	1042.8	3630.8	1451.20	1464.00	4,250
	Polonnaruwa	12	12	16	24.4	18.4	31	40	14	13	36	36	126.4	112.40	80.40	186
	Sub Total	32	32	58	265.6	259.6	443.3	200	174	178	1066	1078.8	3757.2	1563.60	1544.40	4,437
UVA	Monaragala	10	10	18.05	210	225.2	617.85	31	31	28	255.3	247.4	475.7	506.30	513.60	1,140
	Sub Total	10	10	18.05	210	225.2	617.85	31	31	28	255.3	247.4	475.7	506.30	513.60	1,140
NORTH	Kilinochchi	12	12	21.6	330	203.8	437.19				284	171.21	169.63	626.00	387.01	628
	Mullaitivu	2	2	27	262.8	258.08	547.70				318	276.97	271.37	582.80	537.05	846
	Sub Total	14	14	48.6	592.8	461.88	984.89				602	448.18	441	1208.80	924.06	1,474
SOUTH	Hambantota	12.15	10.73	15.43	78.75	78.75	49.254	262.35	137.85	105.7	230	193.2	305.7	583.25	420.53	476
	Sub Total	12.15	10.73	15.43	78.75	78.75	49.254	262.35	137.85	105.7	230	193.2	305.7	583.25	420.53	476
EAST	Ampara	60	60	38.1	80	80	148.2	14.4	29.9	25.4	836.8	710.8	2546.2	991.20	880.70	2,758
	Batticaloa	20	20	17.5							530	422	1327	550.00	442.00	1,345
	Trincomalee	20	20	37.5	30	30	37.74	96	48.8	31.9	408	282.4	967.3	554.00	381.20	1,074
	Sub Total	100	100	93.1	110	110	185.94	110.4	78.7	57.3	1774.8	1415.2	4840.5	2095.20	1703.90	5,177
Total		184.2	182.73	252.93	1465.9	1305.09	2505.42	646.15	459.15	389.80	4150.10	3564.58	10346.25	6446.30	5511.55	13,494

Total production target of the OFCs in all four agriculture programs in year 2020 was 6446.30 ha and actually grown extent were 5509.35 ha. The achievements of the total production will be 13.494 metric tons at the end of 2020/21 year Maha season.

Table-34: Actual Extent Target Vs harvested (ha) Agriculture program 2020

Province	District	Extent Planned & harvested or four agri programs (ha)										
		CVDP		Yala		Mid-Season		Maha Season 2020/21		Total		%
		Planned	Harvested	Planned	Harvested	Planned	Harvested	Planned	Harvested	Planned	Harvested	
North Western	Kurunegala	8	5.8	145.9	133.6	37.6	20.8	154.0	128.8	345.5	289	5.83
	Puttalam	8	8.0	62.9	36.1	4.8	0.0	68.0	32.2	143.7	76	1.54
North central	Anuradhapura	20	20.0	241.2	241.2	160.0	165.0	1,030.0	1,051.3	1,451.2	1,478	29.81
	Polonnaruwa	12	12.0	24.4	18.4	40.0	13.0	36.0	31.3	112.4	75	1.51
Northern	Kilinochchi	12	12.0	330.0	200.3	0.0	0.0	284.0	143.9	626.0	356	7.19
	Mullaitivu	2	2.0	262.8	258.1	0.0	0.0	322.0	262.0	586.8	522	10.53
Eastern	Trincomalee	20	20.0	30.0	30.0	14.4	25.4	408.0	277.0	472.4	352	7.11
	Batticaloa	20	20.0	0.0	0.0	96.0	31.9	530.0	420.0	646.0	472	9.52
	Ampara	60	60.0	80.0	80.0	0.0	0.0	836.8	710.8	976.8	851	17.16
Uva	Moneragala	10	10.0	210.0	225.2	31.0	28.0	255.3	236.5	506.3	500	10.08
Southern	Hambantota	12.14	10.7	78.8	78.8	262.4	105.7	230.0	79.9	583.2	275	5.55
Total		184.14	180.5	1,465.9	1,301.6	646.2	390	4,154	3,374	6,450.3	4,957	100
%			98.0		88.8		60.3		81.2		76.8	

Table-35: Input (Micro-Irrigation) Distributed among all agri Programs – 2020

Province	District	CVDP						Yala	Mid Season		Home Garden			Maha season 2020/21	Total
		seeds (kg)	Equipments/plants					seeds (kg)	seeds (kg)	Liquid fertilizer (Litre)	Vegetable packets	Fruit plants	Equipments	seeds (kg)	seeds (kg)
			Sprinkler	Drip Irrigation	Water pumps	Alkathine Pipes (M)	Plants								
North Western	Kurunegala	585	20			4000		9582.18	940	Purchased, but not issued	3000	3000	5400	5120	16227.18
	Puttalam	800	10			8000		2612.5	0		750	750	1350	1843	5255.5
North central	Anurapura	2000	10		5			6120	4650	464	3050	2275	325	18921	31691
	Polonnaruwa	0		15			3000	262.5	350	36	1000	700	100	1750	2362.5
Northern	Kilinochchi	1200	60					13215	0	0	100	50	10	30841	45256
	Mulaitivu	4000	20					29230.3	0	0	200	50	50	5570	38800.3
Eastern	Trincomalee	2000	50		10	1282		8000	1223.5	170	3150	1725	345	10800	22023.5
	Batticaloa	2000			20	1282		2095	853.2	106	1800	1000	200	14800	19748.2
	Ampara	1500			25	2564		0	0	0	2160	1200	240	27046	28546
Uva	Monaragala	1000		50	10	2121.25	2500	71384	777	3108	135	945	135	12218.5	85379.5
Southern	Hambanthota	1060				1400		2736	3405	657	165	1155	825	18313	25514
Total		16145	170	65	70	20649.25	5500	145237	12199	4541	15510	12850	8980	147222.5	320803.68

Table-36: Gender Distribution in all agri Programs – 2020

Province	District	CVDP		Yala		Mid-Season		Home Garden	Maha		Total			
		Male	Female	Male	Female	Male	Female	Female	Male	Female	Male	Female	Total	%
North Western	Kurunegala	25	15	604	316	183	97	575	163	191	975	1194	2169	10.93
	Puttalam	44	12	57	35	0	0	175	32	49	133	271	404	2.04
North central	Anurapura	54	34	597	415	269	121	325	1122	523	2042	1418	3460	17.44
	Polonnaruwa	40	20	25	18	64	36	100	109	56	238	230	468	2.36
Northern	Kilinochchi	38	22	732	337	0	0	150	357	179	1127	688	1815	9.15
	Mullaitivu	9	11	855	328	0	0	250	734	422	1598	1011	2609	13.15
Eastern	Trincomalee	51	19	178	57	98	124	380	458	201	785	781	1566	7.89
	Batticaloa	92	58	0	0	89	35	200	833	352	1014	645	1659	8.36
	Ampara	31	19	148	52	0	0	240	659	577	838	888	1726	8.70
Uva	Moneragala	39	11	1132	506	65	77	135	398	344	1634	1073	2707	13.64
Southern	Hambantota	21	6	137	90	123	50	165	363	302	644	613	1257	6.34
Total		444	227	4465	2154	891	540	2695	5228	3196	11028	8812	19840	100
	%	4.0	2.6	40.5	24.4	8.1	6.1	30.6	47.4	36.269	100	100		
	%										55.6	44.4	100	

Table-37: Expenditure for Agriculture program 2020

Province	District	Expenditure for Five Agri programs (Rs.'000)						
		CVDP	Yala	Mid-Season	Home Garden	Maha Season 2020/21	Total	%
North Western	Kurunegala	5,047,330	373,152	1,900,000	7,301,000	1,745,200	16,366,682	9.17
	Puttalam	524,701	826,445	0	1,874,000	434,350	3,659,496	2.05
North central	A'pura	5,814,325	1,163,526	1,426,004	4,024,889	15,409,423	27,838,167	15.60
	Polonnaruwa	1,852,945	131,253	1,120,000	850,000	341,500	4,295,698	2.41
Northern	Kilinochchi	5,200,030	4,886,030	0	2,812,195	1,199,770	14,098,025	7.90
	Mullaitivu	2,237,690	10,102,155	0	5,060,970	2,893,060	20,293,875	11.37
Eastern	Trincomalee	5,980,573	693,100	1,023,000	13,259,477	3,223,150.00	24,179,300	13.55
	Batticaloa	2,737,970	0	1,054,000		4,302,000.00	8,093,970	4.54
	Ampara	2,912,072	3,220,980	0		11,491,086.00	17,624,138	9.88
Uva	Moneragala	4,741,746	13,607,998	5,480,000	1,591,339	6,057,620	31,478,703	17.64
Southern	Hambantota	1,014,725	1,941,000	2,020,000	2,027,073	1,470,110	8,472,908	4.75
other expenditure		2,013,525					2,013,525	
Total		40,077,632	36,945,639	14,023,004	38,800,943	48,567,269	178,414,487	100
	%	22.5	20.7	7.9	21.7	27.2	100	

1.1.17 Establishment of CSA Farm Field School in Thirappane

This sub-project proposal is to establish a CSA Farm Field School (FFS) and implement a scientific training program for three years (2020-2023) to promote climate-smart agricultural (CSA) practices among the farmers in 11 poverty-stricken and climatically vulnerable hotspot areas: Kilinochchi, Mullaitivu, Trincomalee, Batticaloa, Ampara, Moneragala, Hambantota, Puttalam, Kurunegala, Anuradhapura and Polonnaruwa districts of Sri Lanka. This FFS will be assisting the Farm Business Schools (FBS) also that will be established by CSIAP in production areas to promote CSA technologies and practices. The purpose of promoting CSA practices is to help the farmers, increase in resilience of their farming systems to face climate changes in the hotspot areas while improving agricultural productivity.

The Field Crops Research and Development Institute (FCRDI) will take the full responsibility of conducting researches and developing the CSA farm application of Climate-Smart Village approach while the PMU of the CSIAP will take the overall responsibility of managing the entire gamut of the training that includes the sub-project in close collaboration with the FCRDI. The farmers who are involved in the research and experiment will also receive necessary support in implementing the training component of the sub-project by properly maintaining demonstration plots and acting as appropriate resource persons.

The objectives of the FCRDI are:

- Developing quality, high yielding pest and diseases tolerant and drought resistance improved varieties of other field crops (OFCs), dry zone vegetables and fruits suitable for irrigated and rain-fed conditions.
- Developing plant protection strategies to minimize crop losses due to the pest and diseases.
- Developing improved agronomic practices to reduce the cost of production thereby increasing the productivity of agricultural lands and crops.
- Testing the adaptability of newly improved varieties and technologies.
- Developing improved soil and water conservation methods and soil fertility management practices.

1.17.1 Fact-Finding Mission for Thirappane FFS

Several initial discussions were held at the PMU with the World Bank officials and the PMU staff regarding the establishment of a Climate Smart Agriculture Farm Field School, and an action plan was prepared in this regard. Initially, a Fact-Finding Mission was held on 28th August 2020 with the staff of the WB, FCRDI, PMU, and DPD of the North-Central Province and the farmers of Wagayakulama village who are the main beneficiaries of the FFS. Dr. Milinda Pathiraja

who has taken the responsibility of the architectural design of the Wagayakulama FFS program also participated in the mission. First of all, the Mission visited the Wagayakulam FFS and met the villagers. The main objective of the establishment of a FFS was explained to them and obtained their views and comments for further improvement of the FFS. Farmers emphasized on the installation of an electric fence as the most important task and assured to provide all necessary assistance to the FFS. Altogether 59 participated in this mission; 34 farmers including 21 men and 13 women and 25 officials including 20 men and 5 women.

Figure-13: Fact-Finding Mission in Wagayakulama Tank - 28th August 2020



Discussion with farmers at the tank site

1.17.2 Second Field Visit to the Farm Field School in Thirappane

The second field visit to the site of Thirappane by WB officials, PMU, DPD officials and a team of architects led by Dr. Milinda Pathiraja was arranged on 30th September and 1st of October 2020. On the first day, the group met Chief Secretary of the North Central Province and the other officials and explained them with presentations the objectives and the importance of the establishment of FFS and its benefits that could be achieved by the farmers in the dry zone. The Chief Secretary agreed to assist the project by coordinating provincial officials. On the second Day, the group visited Thirappane FFS location and met all stakeholders of the village and presented the architectural design of the FFS and explained the objectives of the FFS while emphasizing the need of their dedication, commitment and support to achieve the objective. Also defined the direct and indirect benefits that they gain in future. Dr. Pathiraja and his team demonstrated the construction process of the buildings for the FFS and farmers made models using new technology.

Figure-14: Architectural Design of the FFS - Thirappane



Dr Milinda Pathiraja explains the Architectural Design of the FFS to officials & Villagers



1.1.18 Training of Trainers (ToT) Program (DOA and PDOA)

This programme is to train Agriculture Instructors (AIs) attached to the Department of Agriculture and Provincial Departments of Agriculture who are attached to the Agrarian Service Centers (ASC) on CSA practices. The programme will be conducted as a training of trainers (ToT) programme in DOA and PDOA training centers. These AIs will be assigned to train Agriculture Research and Production Assistants (ARPA) of DAD on CSA technologies and practices.

The direct beneficiaries of the ToT sub-project are 1000 selected Agriculture Instructors who are engaged in extension service of the Department of Agriculture (DOA), Provincial Departments of Agriculture (PDOA). After the ToT programme, such master trainers will be assigned to train 9213 Agriculture Research and Production Assistants of DAD on CSA practices who could also be considered as the direct beneficiaries of the ToT sub-project. The purpose of promoting CSA practices is to help farmers increase in the resilience of their farming systems to climate change and, to improve agricultural productivity.

The Ministry of Agriculture and the Department of Agriculture are the main agencies responsible for executing the project activities with the financial support from the CSIAP. Extension and Training Center of the Department of Agriculture will conduct the training programmes at their training institutes viz Farm Mechanization and Training Center – Anuradhapura, Rice Research and Development Center – Batalagoda and In-Service Training Institute – Angunakolepelessa. The training programmes to be conducted at In-Service Training Institute - Bindunuwewa and In-Service Training Institute – Maha Iluppallama are under Uva and North Central Provincial Departments of Agriculture respectively. This will be coordinated by the Extension and Training Center of the Department of Agriculture. All the training centers are situated in four provinces; North Central, North Western, Southern and Uva and the responsibility of coordinating the project will be with the Deputy Project Director's office to be established in each of the four provinces by CSIAP.

The total cost of the sub-project is Rs.**37.85 million** and the CSIAP has already allocated total budget through the DOA to the AWPB in 2021.

1.1.19 Farm Business School ToT Programme

The training of trainers (ToT) programme organized on FBS approach at In-service Training Institute, Maha Iluppallame was scheduled on the 1st week of Nov. 2020 but it was postponed due to COVID-19 health guidelines. The target group included Sri Lanka Agriculture Service officers, Senior Agriculture Instructors of DoA/PDOA, Specialists of BD, ML and Agriculture Specialists of CSIAP. It is planned to conduct such a programme at the earliest possible period in 2021.

1.1.20 Social & Environmental Safeguard and Gender Inclusion in CSIAP

The World Bank environmental, social and legal safeguard policies are designed to prevent and mitigate undue harm to people and their environment in the implementation of specific development projects, and to ascertain that benefits reach the target farmers. World Bank projects are required to comply with the safeguard policies and are carefully examined for their proposals on how to achieve the goals in compliance with the safeguard policies. Therefore, sub-project preparation are involved in a process of environmental and social screening/ assessment and conclusion with multi-stakeholders groups in the targeted sub-project areas.

This progress allows all parties involved in the project and anticipate potential positive as well as negative impacts of each sub-project and to implement measures that reinforce the positive aspects and mitigate the negative consequences.

Thus, it is expected to bring positive environmental benefits to the project areas through the scale-up of climate-resilient agricultural technologies and farming practices that help to improve soil health, efficiency of water-use and catchment area treatment to promote more efficient use of surface water and more sustainable use of groundwater for agriculture.

Component 1 and 2 may be involved in cultivation and physical activities that could have adverse environmental impacts if environmental aspects are not fully involved in HSAADP. Negative environmental impacts are not identified and mitigated properly. An EAMF has been prepared to guide the screening of activities for physical investments, TA, Project supported advisory and policy support interventions. This would result implementation from an environmental perspective and mitigation actions to manage their environmental impacts including preparation and implementation of EAs and EMPs. It will address site-specific risks and impacts and subsequent monitoring and reporting requirements. In addition, the SESAs will be undertaken to be integrated into the village level plan.

The following tables have shown the current status of social and environmental safeguard process and gender inclusion of project activities.

Success story 111:

Finding peace in family disputes – Rotawewa, Polonnaruwa - North Central Province

There are family and social disputes among the rural villagers of Sri Lanka due to misunderstandings. Little do they know that there are counseling services to address such matters? CSIAP Social Security Team is always ready to address such distresses.

The following is a success story of Social Security Team of the North-Central Province. The story comes from a family from Rotawewa. The parents of this family were about to get divorced, and if that happened it would have adversely affected the future of their three innocent children.

Mr. W.M. Amarathunga had some family disputes with his wife **Ms. Kamani Priyangika** for a long time. Later, Priyangika and her three children deserted Amarathunga in December 2015. Priyangika did not agree to reach a settlement from 2018 therefore, Amarathunga had to continuously pay a monthly compensation of Rs.13, 000 to his dependents.



Happy family with SDO – NCP the family reunion on 2020.10.22

In the meantime, awareness programmes and the benefits of Climate Smart Irrigated Agriculture project reached Rotawewa. Amarathunga also received 50 mango plants.

In June 2020, six months before Amarathunga filed his divorce case, CSIAP had held “good attitude development program”. The speaker of the programme talked about one’s love and affection towards their family members which disturbed the sentiments of Amarathunga and Priyangika. The counsellors talked separately to the couple for several time, and having inspired by their counselling, the estranged couple decided to reunite. They are now a happy and model family in the village.

The Climate Smart Irrigated Agriculture Project helps the farmers in hotspots to achieve the climate change adaptations, addresses their spirit to enable them to be successfully lead lives for the sustainability of the Project.

Application of COVID-19 prevention guideline – Efforts taken by the project

In the implementation process of the CSIAP activities, there are many construction sites operated by different contractors. During this COVID-19 outbreak, immediate actions should be taken to mitigate negative impacts and to prevent the spread of the virus among the community through construction-site workers as they move with other community groups. Hence, contractors and project workers must be guided to implement all the COVID-19 prevention measures to protect the community from the risks of getting infected. Consequently, CSIAP has developed a program for the safety and protection of the construction workers in the CSIA project area.

Table-38: Progress of application of COVID-19 prevention guideline

No	Province	Districts	No of awareness programs	Contact PHI, MOH, Police	Collect workers contact details	Display posters at the construction site	Facilities provided for workers by the contractor	Follow up COVID-19 guideline by the contractor at the worksite
1	North	Kilinochchi Mutative*	3	Yes	Yes	Yes	Yes	Yes
2	Southern	Hambantota	4	Yes	Yes	Yes	Yes	Ye
3	Uva	Moneragala	3	Yes	Yes	Yes	Yes	Yes
4	North Central	Anuradhapur a	10	Yes	Yes	Yes		Yes
5	Eastern	Trincomalee/ Batticaloa* Ampara	5	Yes	Yes	Yes	Yes	Yrs
6	NW	Kurunegala* Puttalam	NO	NO	NO	NO	NO	NO

*Construction not commenced

Figure-15: Poster & leaflets published under COVID pandemic



An effort to protect environment

When construction of ASC centers was done in the North-Central Province, they have done a lot of efforts to protect environment.

❖ Protection of Environment - Tree Removal

At the beginning of the construction, it was proposed to remove 48 trees but only eight trees were removed thereby saving 40 trees with the intervention of social safe guard team.

- ❖ Two feet moving fence at the Koonwawa ASC and saved 38 trees.
- ❖ Swallow birds' nests were saved with the collaboration of the Wildlife Department at Tantirimale ASC premises.

People protect from dust during the construction period.



People protect from dust



Safety for workers

Tank Rehabilitation Development with protecting environment

North-Central Province

In the Anuradhapura district, when rehabilitation of Wahadagamuwa tank in Ranorawa cascade its estimate had marked to remove a big tree which stood in the middle of the tank bund. But CSIAP staff discussed with related agencies and revised the estimate to spare the tree and build the tank bund a few metres inside to the tank during its rehabilitation.



When the rehabilitation process of 114 tanks of Ranorawa cascade was carried out, it was proposed to remove 114 trees but only 69 were removed thereby saving 45. According to the tree planting campaign to develop the eco-system of the Ranorawa cascade, 300 trees have already been planted in the vicinity of three tanks and 1000 trees to be planted in the neighborhood of another nine tanks.

➤ **Training Program**

Two-day residential training program was conducted for provincial safeguard officers on screening of tank rehabilitation with the World Bank safeguard team.

➤ **Integrated Pest Management**

A meeting was held to prepare IPM plan for the Anuradhapura district. Provincial Agriculture officers participated in the program. A committee has appointed to draft the plan.

1.1.20. Modernization of Agrarian Service Centers (MASCs)

The overall objectives of the modernization of ASCs are to convert the Community Centers as One-Stop Service Centers to cater to the real needs of the farming community in the area. Following main areas have been prioritized for the modernization of ASCs in all the six provinces.

- ❖ **Expansion or renovation of the existing center (Civil work)**
- ❖ **Institutional Development and Capacity Building**
- ❖ **Information & Communication Technology (ICT) support**
- ❖ **Marketing support**
- ❖ **Support with Farmer equipment (Machinery hub)**

CSIAP has decided as an initial step to start the civil work of modernization of ASCs. Sub-project proposals were developed by the Department of Agrarian Development (DAD). Given below is the current status of the process:

1.1.20.1 Current status of the Modernization of Agrarian Service Centers

Civil work of the Agrarian Service Centers has started as the first step of the modernization process. The entire civil work has been divided into 11 packages consisting of 47 ASCs which has been estimated at a total cost of Rs.338.11 Mn. The total expenditure for the civil work of ASCs was Rs.141.33 Mn as at 31st Dec 2020.

So far, modernization of civil work of the ASCs has started in 36 centers in five districts. The contract will be awarded for 11 ASCs soon bids have been recalled for 01 ASC in the North-Western Province. Construction of ten ASCs are underway in the North-Central Province and the Social Audit Committees have already been set up in this regard. Summary of modernization of ASCs is given below:

1.1.20.2 Current Status of Modernization of Agrarian Centers (ASCs)

Table-39: Summary Modernization of Agrarian Centers (ASCs) as at 31st Dec 2020.

District	No of ASCs	Total Estimated cost (LKR)	Date awarded	Date of completion	Contract Amount (Rs. Mn)	Payments made (Rs. Mn)	Current status of the civil work
K'negala	8	41,529,503	Entered to STEP & cleared				10 ASCs are ready for awarding & waiting for the Ministry Secretary's approval. Rebidding is needed for one ASC.
Puttalam	3	23,148,950					
	11	64,678,453					
A'pura	4	39,684,881	20/12/2019	25/09/2020	32.41	30.02	100% of work has been completed in all 4 ASCs. Final payments to be made.
	6	23,233,111	20/12/2019	25/09/2020	30.48	28.62	Three ASCs are 100 % completed & over 70% completed in other three ASCs.
	10	62,917,992			62.89	58.64	
Trincomalee	5	40,556,768	20/12/2019	31/12/2020	37.72	17.55	Two completed & over 70% work has been completed in other three ASCs.
Batticaloa	3	23,910,652	/01/2021		27.7	-	Agreement has signed & work has started.
Ampara	4	32,786,252	23/09/2020	30/06/2021	30.16	9.7	Over 70% work has been completed in two ASCs & other two three ASCs not yet started
	12	97,253,672			95.58	27.24	
K'nochchi	3	24,320,852	12/2/2019	23/07/2020	25.32	25.06	100% construction work completed & handed over to DAD
Mullaitivu	4	30,844,860	14/9/2020	6/7/2021	31.1	6.22	Contract has awarded & agreement has signed
	7	55,165,712			56.42	31.28	
M'gala	3	28,793,814	12/2/2019	24/10/2020	28.79	12.8	Work has been started in all three ASCs. 90% of construction work has completed in two ASCs. Thelulla work is in progress.
H'thota	4	29,302,211	27/02/2020	18/12/2020	30.64	11.37	80 % completed in 2 ASCs & other 2 not yet started
		58,096,025			59.43	24.17	
	47	338,111,854			274.32	*141.33	

Funds have been allocated for the year 2021 to continue the balance of modernization of ASCs in all provinces.

- ❖ *Note: Most construction works have delayed due to the lack of capacity of contractors. When awarding contracts as packages, one package may consist of more than two ASCs. They are not starting construction works simultaneously in all the offered ASCs. They complete one particular ASC and then only start the next. It is recommended to award contracts considering their capacity.*
- ❖ *Another reason for the delay was the Corona virus pandemic prevailing in the country. Though they have the adequate funds and machinery, constructions have severely affected due to the restrictions imposed by the health authorities especially the difficulty of labor mobilization.*

1.1.20.3 Employment opportunities created under Modernization of Civil works (ASC Modernization)

- ❖ At present, civil work of 46 ASC modernization are continuing except Thabuththa ASC in the Kurunegala district. Out of the awarded 46 contracts 16 have been completed and work on others are continuing.
- ❖ Implementation of 12 irrigation schemes also is now underway and 10 schemes have already been completed.
- ❖ In addition to the above two programs, all agriculture interventions (CVDP, COVID Yala, and Mid-season and Maha season 2020/21) are now nearly completed and harvesting has started. These programs also created seasonal job opportunities for the project beneficiaries as well as outsiders in land preparation and harvesting.

Employment opportunities have been created through all above programs, but it was not properly recorded. However given below are some information and images provided by Southern, Eastern and Northern provinces.

Southern Province workforce

Post	No of persons
Work supervisor	03
Mason work	15
Carpenter	05
Brick supplier	04
Transport	06
Security	06
Labor	40
Total	79





1.1.20.4 Employment opportunities created under project interventions.

Eastern Province

A number of agricultural activities is being implemented in the hotspot areas of the Eastern Province since the latter part of 2019. Agriculture activities created employment opportunities not only for the direct beneficiaries but also for the indirect beneficiaries. Labor is mainly required in the activities such as land preparation, seeding, weeding and harvesting. Men and women in the same village get these job opportunities.

Another important activity of CSIAP is Modernization of ASCs in the project area. There are 13 ASC areas covered under the project. Out of the 12 ASCs are selected for rehabilitation in 2020 at a cost of Rs.101.02 Mn. The construction works are ongoing in all three districts, the contractors are generally hiring skilled and unskilled labor from the project areas and the adjoining project areas. Presently the workforce of the construction site as follows:

District	Mason	Carpenter/Welder	Labor	Work supervisor
Trincomalee	06	03	15	03
Batticaloa	04	02	10	03
Ampara	06	-	12	03
Total	16	05	37	09

M.H.M. Anvar of Pulmoddai said that his family was suffered a lot without a livelihood during the COVID-19 pandemic. He said: “Fortunately I got a chance to join Lucky Construction which is doing modernization of the ASC in Pulmoddai. There are 10 laborers, two masons from our village are working with me in this site. At the meeting CSIAP officials said that it is going to rehabilitate a number of tanks in this year. I hope we will get work in the tank rehabilitation projects in the future as well.”



At Pulmoddai ASC



at Karadiyanaru ASC



Mulankavil ASC

Figure-16: Some of the completed Modernization of Agrarian Service Centers & others where work in progress



Horowpothana ASC



Galenbindunuwewa ASCs



Nc Bandagiriya ASC



Mulankavil ASC - Kilinochchi



Pulmoddai ASC - Trincomalee



Pankulam Asc – Trincomalee



Buttala ASC - Uva is under construction



Thanthirimale ASC



Horowpothana ASC

1.1.20.5 Establishment of Machinery hub for ASCs

The main objective of the SPP is to support the farming community in ASC areas with special reference to beneficiary farmers of CSIAP to mechanize the agricultural operations and reduce the cost of production while increasing the efficiency and productivity with supporting value addition options of agricultural produce.

Specific Objectives:

- Ensure availability of appropriate types of METs that will facilitate smooth farming operations of the farmer clientele at all the time.
- Ensure accessibility of farmers to METs, assuring timeliness, affordability and availability at convenient locations.
- Facilitate and assist the implementation of climate-smart agriculture technology that will require the support of METs.
- Accelerate the farm mechanization process in hotspot areas to overcome the labor shortage and also to enhance the efficiency of farming operations.

Proposed sub-project:

The sub-project is designed to effectively overcome the constraints in using machinery in farming and promote mechanization among small holder farmers to reduce the cost of production and increase the efficiency of all agriculture-related operations.

Sub-project is prepared to establish machinery units at two ASC centers in Parangiyawadiya in the Anuradhapura district and Weerawila in the Hambantota district.

The main objective of the SPP is to support the farming community in ASC areas with special reference to beneficiary farmers of CSIAP to mechanize the agricultural operations and reduce the cost of production while increasing the efficiency and productivity with supporting value addition options of agricultural produce. The machinery hub of ASCs will provide machinery to the farmers at a reasonable price during the land preparation period.

Project Component 2: Water for Agriculture

This main component has two sub-components:

Two sub- components:

2.1 Irrigation Rehabilitation Program

2.2 Operation and Maintenance of Irrigation Systems

2.1 Irrigation Rehabilitation Program:

The following two key activities are implemented under this program.

- (I) Rehabilitation, modernization and repair of tanks and anicuts (1,200 schemes) in cascades and individual systems in the hotspot areas. The details of these schemes have been collected under the PRA sessions.
- (II) Construction of other related infrastructure – watershed development, construction of recharge wells in the tank vicinity, water harvesting works and flood protection infrastructure;

(I) Irrigation Rehabilitation program

2.1.1 Identification of Irrigation Systems for rehabilitation:

- The total number of 1200 schemes are proposed for rehabilitation, and the district level distribution is given in Table-40. They will be implemented in 2021 and 2022.
- Average irrigated area is 50 acres (20 ha) per scheme. Total Irrigated area = 60,000 acres (24,000 ha). The Total Project allocation for irrigation rehabilitation = Rs.15,000 Mn (US\$82 Mn @ Rs.183)
- **Allow** for management activities (Mgt. fee + purchasing equipment + Eng. survey cost + Hydrological survey & other) 20 % = Rs.3,000 Mn; Balance amount available for rehabilitation work = Rs.12,000 Mn
- Average cost allocation per scheme for rehabilitation + Catchment Development + Water management + Agri roads+ Recharge wells = Rs.10 Mn Community contribution Rs. 1Mn

- Pro rata cost - Rehabilitation cost - Rs.200,000 per acre (500,000 per ha); Approximate cost distribution – Head works Rs.125,000 per ac + downstream development Rs.50,000 per ac + Water management & other cost = Rs.25,000 per ac (61,750 per ha)

Table-40: District-wise irrigation schemes distribution selected for rehabilitation

No.	District	Stage 1	Stage 2	Total
1	Kurunegala	120	180	300
2	Puttalam	30	75	105
3	A'pura	120	160	280
4	Pol'wa	10	16	26
5	Kilinochchi	34	23	57
6	Mullaitivu	40	70	110
7	Trincomalee	30	50	80
8	Ampara	20	31	51
9	Batticaloa	12	13	25
10	Moneragala	40	42	82
11	Hambantota	44	40	84
	Total	500	700	1200

Table-41 Total schemes proposed for rehabilitation in 2021-2022

Province	District	Nu. Surveyed Ph 1	Nu. Survey Ph 2	Canal & anicuts	Total	Irrigated area (ha)	No. farmer families	PID	ID	DAD
NWP	Kurunegala	82	148	2	232	1,507.70	5,116	88		144
	Puttalam		105		105	1,155.90	2,073	46		59
	Sub Total	82	253	2	337	2,663.60	7,189	134		203
NCP	Anuradhapura	66	112		178	3,247.80	6,078	128		50
	Polonnaruwa		24		24	374.5	1,580	11		13
	Sub Total	66	136		202	3,622.30	7,658	139		63
NP	Kilinochchi	33	23		56	985	3,659	29		28
	Mullaitivu		83	20	103	3,987	5,836	50		52
	Sub Total	33	106	20	159	4,972	9,495	79		80
E P	Trincomalee	9	74	1	84	1,447.40	3,104	37		47
	Ampara	10	35	6	51	1,507.30	4,309	20		31
	Batticaloa	5	19	6	30	645.7	1,762	10		20
	Sub Total	24	128	13	165	3,600.40	9,175	67		98
Uva	Moneragala	26	56	13	95	1,830	3,619	18	3	74
SP	Hambantota	37	47		84	1,323.90	2,364	47		37
	Sub Total	63	103	13	179	3,153.85	5,983	65	3	98
	Total	268	726	48	1042	18,012.10	39,500	484	3	542

2.1.2 Engineering Staff:

- From the total schemes, more than 50% are implemented by the Department of Agrarian Development (DAD). During the discussions it was revealed that the DAD has limited technical staff and they are also fully engaged in departmental work. Hence approval has been obtained to recruit 30 Technical Officers and 10 Senior Technical Officers on assignment (contract) basis. Their salaries will be paid under the Management Fee (5% of the work done). Their performances will be reviewed quarterly and annually to evaluate the outputs.
- Discussions will be held with the Provincial Engineering Departments also to be confirmed whether they can release some technical staff to the project work. Most of them are involved in 'Wari Saubahgya' the National irrigation rehabilitation program, and their availability for the project works is limited. If the PID agrees, the project can recruit some Technical Officers as proposed in DAD.

2.1.3 Hydrological Study

- **Stage 1** - The Project has carried out Hydrological Assessments in three River Basins as pilot programs (Mandakal Aru, Yan Oya and Mi Oya basins) to study the potential of augmenting irrigation water supply in the commands and catchments of cascade tanks. Current status of the Hydrological assessment and Engineering survey is given below:

Table-42: DEM & Hydrological Study - Stage 1

District	River Basin & area Sq Km	Agency/ Tanks/ & awarded amount	Status
Kilinochchi	Mandakal Aru - 317	TEAMS (Pvt_ Ltd (Rs. 30 Mn)	Completed
Anuradhapura & Trincomalee	Yan Oya – 1,755		Completed
Kurunegala & Puttalam	Mi Oya – 1,783		95% completed

Observations and comments

- (i) High Resolution DEM was purchased at a cost of Rs.30 Mn and provided to TEAMS Consultants to conduct the Hydrological Study.
- (ii) The TEAMS Consultants have assessed the total utilizable water resources with different degree of reliability in their Final Draft Interim Report. They also have given

recommendations to study the ability of increasing the tank capacities under different scenarios in Yan Oya and Mandakal Aru Basins. However, their recommendations are not that clear to compute tank water inflows and design the tanks.

- (iii) Some of the Project officials (PID and DAD) participated in some training programs with Prof. Nandalal (TEAMS Consultant) on new design approaches.

Stage 2 & 3 of the Hydrological Survey

- (i) The Project has arranged to call proposals for other river basins in two stages:
Stage 2 – Manik Ganga, Kirindi Oya, and Heda Oya and Karanda Oya basins
Stage 3 – Kala Oya, Per Aru and Mundeni Aru.
- (ii) For Stage 2, four agencies selected and proposals were called but due to the COVID-19 situation, they had not responded. So, it has been arranged to recall the proposals. For Stage 3, the evaluations of the EOI finalized and ready to call proposals again.
- (iii) The project has decided to purchase the World Dem for the above two hydrological studies.

Some problems encountered and suggested solutions:

- (i) There is a long delay (more than one year) in completing the Hydrological study in first 3 river basins (Stage 1- pilot program) due to various reasons. Subsequently the balance two programs (Stage 2 and Stage 3) were also delayed in order to identify the issues and make necessary modifications based on the results of Stage 1.
- (ii) There is a pressure from the Government to commence tank rehabilitation works from February 2021 onwards. In tank augmentation too, there are some limitations - even the hydrological study reveals more seasonal inflow, the spills cannot be raised due to inundation of upper private lands in the tank bed area. The farmers in downstream tanks also complain that the inflows to their tanks are getting reduced.
- (iii) Under these circumstances, it is proposed to continue with the normal design methods and prepare the estimates. But the tanks that have potential for increasing the capacities will be considered separately. The data and information given in the Hydrological study are used whenever necessary.

2.1.4 Pilot Program: Ranorawa Development Work

Following activities were completed in Ranorawa and Mahanikawewa cascade development work.

1. The PRA activities and the Baseline Survey were completed.
2. The Hydrological assessment was completed
3. The Social safeguard and environmental assessments were completed.
4. Rehabilitation program activities are as follows:
 - The 12 tanks were divided into three contract packages and were awarded in December 2019. Due to the monsoon in December and the Corona virus epidemic, the rehabilitation works got delayed.
 - In May 2020, a review meeting was conducted with the contractors and decided to recommence the work from 1st June 2020. There was a problem regarding one of the tanks - Meda Oyamaduwa since part of it is located in an archaeological site. Later, the matter was resolved.

Figure-17: Ranorawa Tanks under construction





2.1.5 Present Rehabilitation status of the 12 tanks

Table-43: Ranorawa Tank Rehabilitation as at 31st Dec 2020

No	Name of the Tank	Extent (ha)	No of farmers
Package 1			
1	Ranorawa wewa	10.4	42
2	Meda Oyamaduwa	16.5	31
3	Ihala Wahadambu	2.2	6
	Sub Total	29.1	79
Package 2			
4	Meegasdigiliya	56	60
5	Olupadura	4	40
6	Mahathalkanda	18.8	56
	Sub Total	78.8	156
Package 3			
7	Mahadiwulwewa	11	62
8	Niwandanagama	3.2	56
9	Ihalagama	2.6	18
10	Ihala Niwandanagama	4.1	13
	Sub Total	20.9	149
Package 4			
11	Katukeliyawa	2.2	7
12	Wahadambu Wewa	4	25
	Sub total	6.2	32
	Total	135	416

Though the estimated value of Ranorawa tank development was Rs.76.09 Mn, only 135 ha of paddy lands to be cultivated and 416 persons will be benefited.

2.1.6. Current Status of Engineering Survey & Tank Rehabilitation in provinces

2.1.6.1 Engineering Survey & Tank Rehabilitation in Northern Province

The Project has carried out Hydrological Assessments in Mandakal Aru river basin as the pilot program in the Kilinochchi district and it has already been completed. The 35 tanks under Mandakal Aru were separated in to three sectors as to rehabilitate by Kn/DAD (17 tanks), Kn/PID (17 tanks) and Mu/PID (1 tank) and the work progress as follows.

- ❖ Kn/Veeramodaikulam: The Draft SPP and the estimate have been prepared by PID and was submitted to the WB. Comments have been received and it will be finalized within a week and will be submitted for approval.
- ❖ Kn/Ithavikulam, Sinna Iththavil and Nochchimoddaikulam: The SPP and the estimates are being prepared by the PID and expected to be completed by end of Dec 2020.
- ❖ Kn/Thelikarai, Thikkai, Eriyanari, Mathamoddai and Enochchi (Thelikarai): Preliminary investigations have been carried out and detailed estimates are under preparation by DAD.

The 20 Tanks under Per Aru were separated by Mu/DAD (10 tanks) and Mu/PID (10 tanks) for the rehabilitation and PID has completed the walkthrough survey to all the allocated tanks and the survey estimates are being prepared.

Figure-18: Mandakal Aru River basin

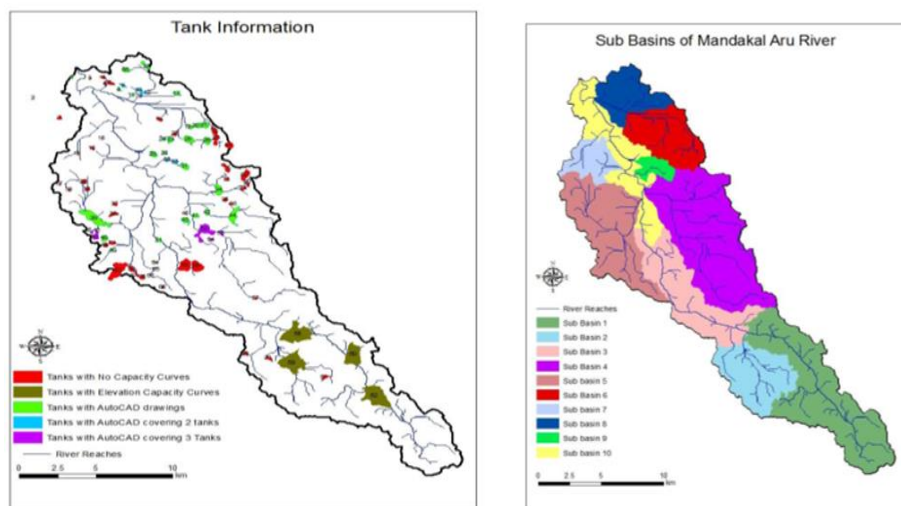


Table-44: Total schemes proposed for Rehabilitation in 2021/22 – Northern Province

Province	District	No. Surveyed Phase 1	No. Survey Phase 2	Canal & anicuts	Total	Irrigated area (ha)	No. farmer families	PID	DAD
NP	Kilinochchi	34	23		57	985	3,659	29	28
	Mullaitivu		83	20	103	3,987	5,836	51	52
	Sub Total	34	106	20	159	4,972	9,495	80	80

Figure-19: Engineering Survey -Northern province



2.1.6.2 Engineering Survey & Tank Rehabilitation in North Western Province

In the Kurunegala district 82 tanks have been proposed for rehabilitation under Phase 1. Hydrological survey has been completed and all the arrangements have made to award the consultancy for engineering survey.

Table-45: Total schemes proposed for Rehabilitation in 2021/22 – North Western Province

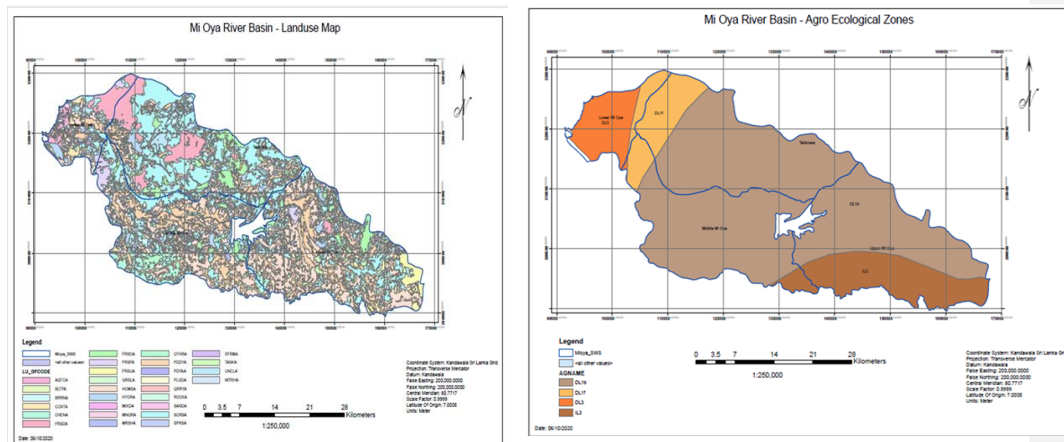
Province	District	No. Surveyed Phase 1	No. Survey Phase 2	Canal & anicuts	Total	Irrigated area (ha)	No. farmer families	PID	DAD
NWP	Kurunegala	80	148	2	230	1,507.7	5,116	88	142
	Puttalam		105		105	1,155.9	2,073	46	59
	Sub Total	80	253	2	335	2,663.6	7,189	134	201

Figure-20: North Western Engineering Survey in progress



Engineering Survey is in progress – North-Western

Figure-21: Mi Oya River Basin – Land use



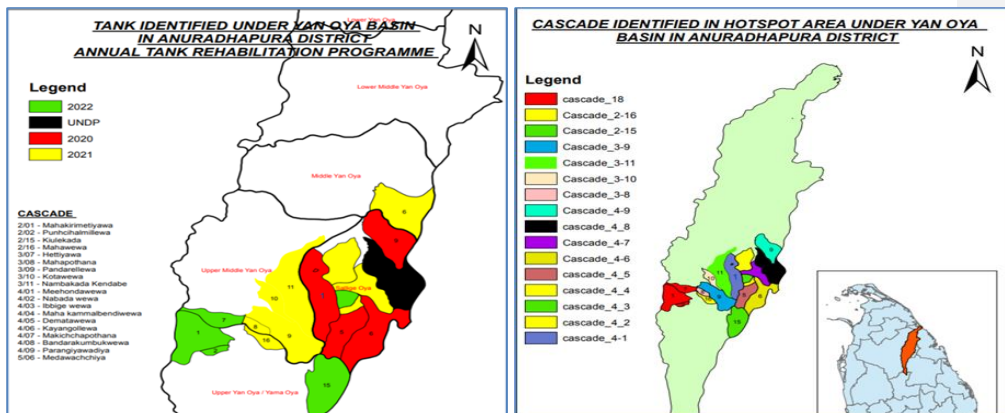
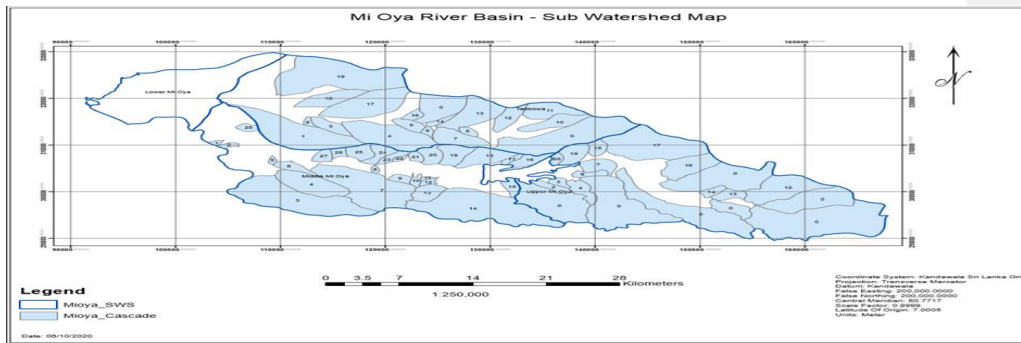
2.1.6.3 Engineering Survey & Tank Rehabilitation North Central Province

202 irrigation schemes have been planned to rehabilitate during the period between 2020 and 2023. Hydrological survey of 66 tanks have already been completed and is planned to conduct Engineering survey for 136 tanks under phase 1 and 66 tanks under phase 11 respectively.

Table-46: Total schemes proposed for Rehabilitation in 2021/22 – North Western Province

Province	District	No. Surveyed Phase 1	No. Survey Phase 2	Total	Irrigated area ha	No. farmer families	PID	DAD
NCP	Anuradhapura	66	112	178	3,247.8	6,078	128	50
	Polonnaruwa		24	24	374.5	1,580	11	13
	Sub Total	66	136	202	3,622.3	7,658	139	63

Figure-22: Hotspot areas in Yan Oya basin



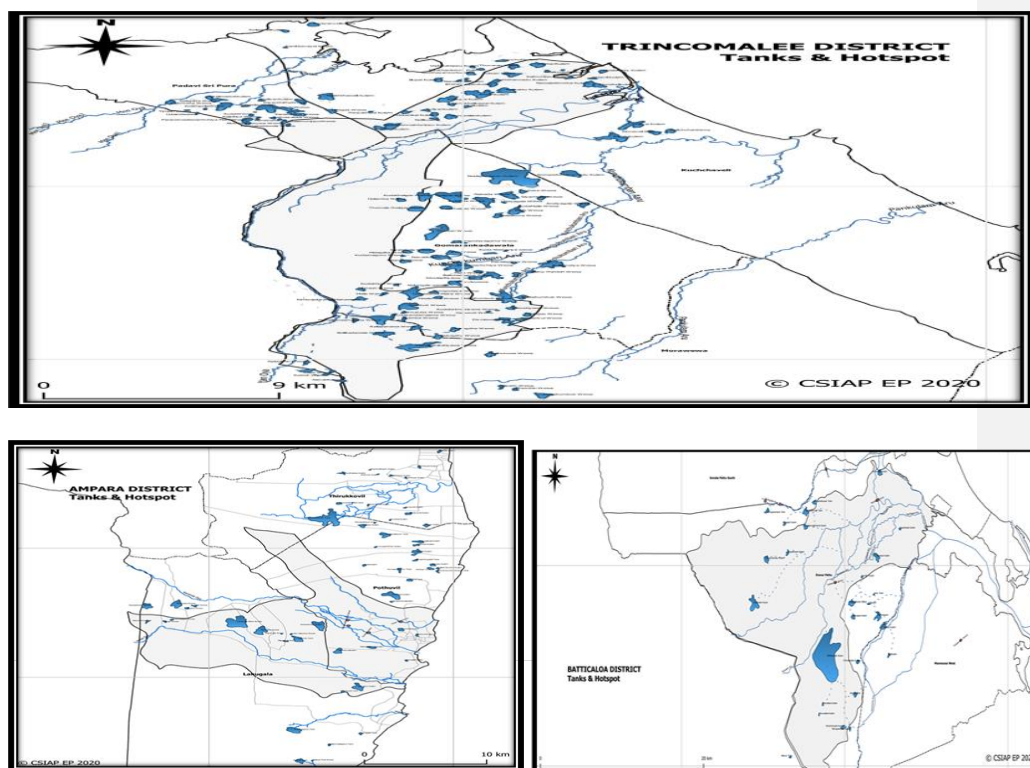
2.1.6.4 Engineering Survey & Tank Rehabilitation in the Eastern Province

128 irrigation schemes have been planned to rehabilitate during the period of 2020 - 2023. Hydrological survey of irrigation schemes has not yet started. Engineering survey for 128 tanks is planned to conduct under Phase II and 13 canals have been identified to rehabilitate in year 2021.

Table-47: Total schemes proposed for rehabilitation in 2021/22 – Eastern Province

Province	Districts	No. Surveyed Phase 1	No. Survey Phase 2	Canal & anicuts	Total	Irrigated area ha	No. farmer families	PID	DAD
Eastern Province	Trincomalee	-	74	1	75	1,447.4	3,104	28	47
	Ampara	-	35	6	41	1,507.3	4,309	20	21
	Batticaloa	-	19	6	25	645.7	1,762	5	20
	Sub Total	-	128	13	141	3,600	9,175	53	88

Figure-23: Eastern Province – Hotspot area (Ampara, Trincomalee & Batticaloa)



2.1.6.5 Engineering Survey & Tank Rehabilitation in the Uva Province

Eighty-two (82) irrigation schemes have been planned to rehabilitate during the period of 2020 and 2021. Engineering surveys have been planned for 13 tanks under Phase I and 56 tanks under Phase II. In addition, 13 anicuts and canals have also been planned to rehabilitate while completion of the Engineering survey and preparation of estimates of the tanks are in progress.

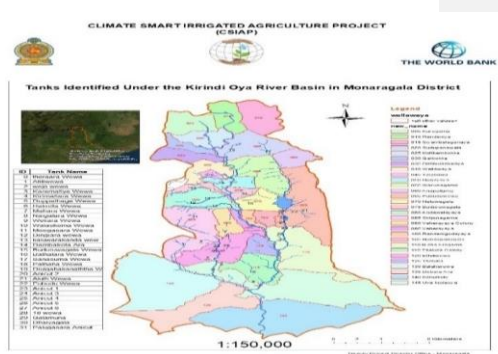
Table-48: Total schemes proposed for rehabilitation in 2021/22 – Uva Province

Province	Districts	No. Surveyed Phase 1	No. Survey Phase 2	Canal & anicuts	Total	Irrigated area (ha)	No. farmer families	PID	ID	DAD
Uva	Moneragala	13	56	13	82	1,830	3,619	18	3	61
		13	56	13	82	1,830	3,619	18	3	61

Survey Works – Initial surveys/estimates of five anicuts were completed. Estimate for establishing Control Points using licensed surveyor has submitted to PD and the sanction was obtained. Procurement works are completed and tenders were offered.

Preparation of drawings – 90% have been completed with an arbitrary TBM level. After establishing the control points, final drawings shall be completed with MSL TBM values. Licensed surveyor was selected and he will commence work from 25th January, 2021.

Figure-24: Proposed Anicut in Uva Province



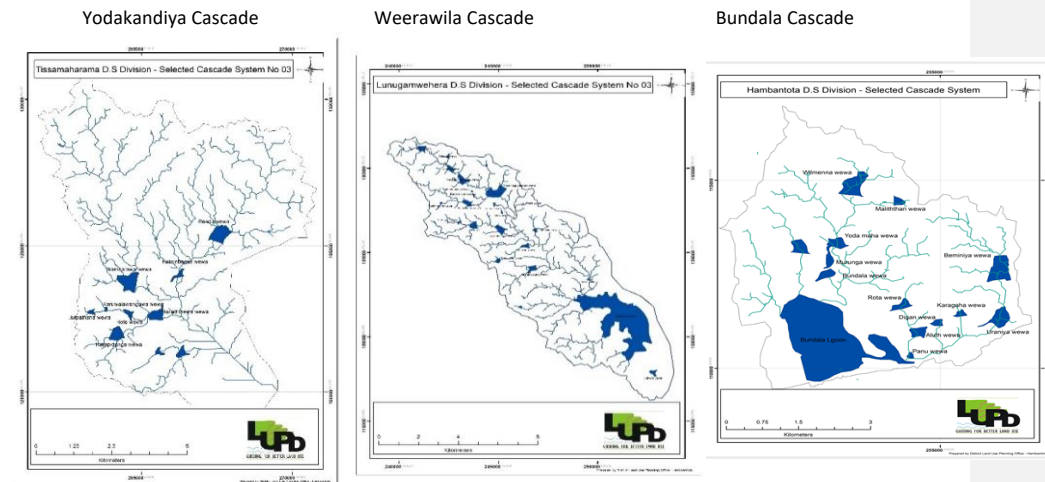
2.1.6.6 Engineering Survey & Tank Rehabilitation in Southern Province

Eighty four irrigation schemes have been planned to rehabilitate during the period of 2021 and 2023. Hydrological survey of irrigation schemes has not yet started. Engineering survey for 37 tanks is planned to conduct under Phase I and 47 tanks under Phase II.

Table-49: Total number of schemes proposed for rehabilitation in 2021/22 – Southern Province

Province	District	No. Surveyed Phase 1	No. Survey Phase 2	Canal & anicuts	Total	Irrigated area (ha)	No. farmer families	PID	DAD
SP	Hambantota	37	47		84	1,323	2,364	47	37
	Sub Total	37	47		84	1,323	2364	47	37

Figure-25: Cascade in Southern Province



2.1.6.7 Difficulties encountered in Engineering Survey & Tank Rehabilitation

- ❖ So far, all the technical personnel attached to the offices of both the PMU and the DPD are part timers. Though the Hydrologist and the Senior Engineer positions are fulltime jobs these positions are still to be filled. Applicants have been shortlisted for interviews.
- ❖ All the positions related to tank rehabilitation in DPD offices are also part-timers and it is essential to recruit full-timers to fill these vacancies.
- ❖ In the original project design, tank rehabilitation has been assigned to line agencies such as DAD, PID or Dept. of Central Irrigation. However it is recommended to fill the positions such as Technical officers and Engineers under DPD office as full-time officers for close supervision and expedite the works.

2.1.6.8 Issues emerged from the Engineering Survey

At the request of the Secretary of MOA, all contracts of the engineering survey Phase I were cancelled and the contractors were informed accordingly. Then a meeting with three consultancy firms was convened and the current situation of the Engineering survey Phase I was reviewed by the PD and the Consultant Engineer of the PMU. The consultancy firms agreed to submit the drawings and other necessary documents of the completed tanks of the engineering survey to the PMU within the stipulated time.

Project Director of the CSIAP had a discussion with the Secretary of Ministry of Agriculture regarding the current status of the Engineering Survey, and the Secretary instructed to meet chief secretaries and discuss with them whether there is any possibility or capability to undertake the consultancy surveys of the Engineering Survey at provincial DAD, PID or ID level irrespective of calling the bids. The Secretary also proposed to handover the Engineering Survey for the respective line agencies if they are willing to do so, rather than paying a big amount of project funds to consultancy firms.

Accordingly, the PD of CSIAP met all Chief Secretaries within a week and discussed the issues such as the implementation and payment modalities and how can all the line agencies be get involved in Engineering Surveys and all the other matters in the process with the CS and the representatives of the line agencies. All the line agencies except the North-Western Province agreed to undertake

the Engineering Survey of the respective province and requested to provide them some facilities in the surveying part (Tank bed survey & demarcation of contours lines for catchment area) which were beyond their control and agreed to do the engineering survey, estimation and supervision of tank rehabilitation process. They also agreed to share the services of the technical personnel among the line agencies for engineering survey, estimation and supervision of tank rehabilitation process whenever necessary.

As a result of this discussion, a workshop was organized on 14th August 2020 to aware all engineers and other technical staff of the line agencies. The Secretary of the MOA and the WB representatives also participated.

Figure-26: Discussion with Chief Secretaries regarding Engineering Survey



Discussion held with CS - North Central Province



Discussion held with CS - Eastern Province



Discussion held with CS – Uva Province



Discussion held with CS – Southern Province

After the initial discussions held with the Chief Secretaries of all the six provinces, World Bank office in Colombo emphasized on the need to convene a meeting to discuss with all engineering

staff of DAD, PID and CSIAP on the current status of the Engineering Survey and the way to expedite the tank rehabilitation work of the CSIAP as the work is already delayed. Accordingly, a workshop to discuss the matter was held with the participation of the Secretary of the MOA on 14th August 2020.

Figure-27: Photos of the Engineering Workshop -HARTI



Table-50: Training & Awareness programs conducted for Hydrological & Engineering Surveys

No	Subject area	planned	No conducted	Officers			Venue
				Male	Female	Total	
1	Construction supervision/CBTI	1	1	51	6	57	CBTI
2	Finalization of tank list	1	1	43	8	51	HARTI
3	Tank Engineering Survey	1	1	91	4	95	HARTI
4	Hydrological Assessment	1	1	-	-	-	HARTI
Sub total		4	4	185	18		

2.2 Conducting PRA & Preparation of Hotspot Area Development Plan

Preparation of Hotspot Area Development Plan is the most important and core task of the project. All the main development activities of CSIAP come from this plan. To obtain this vital information, CSIAP decided to conduct PRA activities covering all the six provinces and prepare a development plan for 11 districts. All the consultancy firms were outsourced through Quality and Least Cost Selection (QLCS) method.

The objective of this assignment was to conduct PRA programs in the respective ward/tank/village level and generate data needed for the preparation of Hotspot Area Agriculture Development Plan of the CSIAP project. This objective achieved through conducting and using PRA techniques such as social/issue/resource mapping, transect walk, Venn diagrams and other techniques with the consultation of farmer organizations, CBOs, women organizations, village-level government officials and potential beneficiaries.

2.2.1 Current status of HSAADPs

The preparation of HSAADP was a prime and important task of the CSIAP project. The staff attached to all the DPDs and the PMU discussed the delay in submitting divisional plans on 11th May 2020 at the PMU. Later, it was decided to call all the consultancy firms to submit their reports immediately, and notice in that regard has already been posted. Furthermore, it was decided to discuss individually with their key staff to solve the issue, hence the divisional report is the most important document of the project to go ahead with a comprehensive plan. In addition, all the DPDs agreed to discuss with consultancy firms to amicably get the divisional plans as soon as possible on a win-win solution.

Two separate discussions were held with Janathakshan and ISB consultancy team on 10th June 2020 at the PMU. The PRA team and the PD attended the meeting with the consultancy firms. They agreed to submit all the reports by the end of the last week of June 2020.

The second meeting was held with TEAMs and EML consultancy teams separately on 10th June 2020 at the PMU. All the members of the PRA team and the PD attended the meeting with the consultancy firms. They agreed to submit all the reports by the end of last week of June 2020.

All the consultancy firms have now submitted 40 divisional plans, including 47 ASC level interventions to the respective DPDs.

Due payments to the PRAs was made for the additional tanks after receiving the approval of the PMU. This was identified at the previous PRA sessions with the help of the villagers.

All PRA works were completed before 31st March 2020 and a total number of tanks identified are given below. These data comprise of 746 additional tanks that is included to the original tank list of the project, and most of these tanks are under the authority of Dept. of Forests, Dept. Of Wildlife or are remaining abandoned.

The PMU convened a meeting with all the DPD staff to discuss the present status of the interventions of annexure seven and instructed and guided them to do the required amendments to it for further improvements hence it is the most important document for the future project implementation process.

2.2.3 Total Tank list after PRA

Table-51: Total list of tanks after PRA as at 31st Dec 2020.

Province	District	Original Tank List (Before PRA)	Newly added tanks after PRA	Total Tanks	% provincial distribution
Northwestern	Kurunegala	348	290	638	
	Puttalam	77	83	160	
	Sub Total	425	373	798	45.2
North Central	Anuradhapura	209	66	275	
	Polonnaruwa	35	-11	24	
	Sub Total	244	55	299	17
Northern	Kilinochchi	64	60	65	
	Mullaitivu	77	10	130	
	Sub Total	141	70	195	11
Eastern	Trincomalee	52	152	204	
	Batticaloa	17	20	37	
	Ampara	24	36	60	
	Sub Total	93	208	301	17.1
Uva	Moneragala	79	8	87	4.9
Southern	Hambantota	52	32	84	4.8
Total		1034	746	1764	100
% increase			72.14		

After completion of PRA, validations meetings were conducted by the DPD offices with the participation of project beneficiaries, relevant officials of the provinces to ensure and review the findings of the PRA. Subsequently PRA consultancy teams commenced preparing Hotspot Area Agriculture Development plans and the present status is given below:

A List of project beneficiaries was prepared based on the PRA findings & the data available according to the respective GN & ASC divisions.

Table-52: Total project beneficiaries - CSIAP

Name of the Province	District	No of DS Division	No of ASC Division	Status of Distribution of Project beneficiaries (Direct & Indirect)					Command area (Extent ha)	
				No of GN Division	Total farmer families	Direct Farmer families	Indirect farmer families	Total population	Paddy/ha	Highlands/ha
North Western	Kurunegala	5	9	60	82386	20011	62570	260427	25866	23354
	Puttalam	3	3	15	22460	5468	16992	73858	8480	27009
	Subtotal	8	12	75	104846	25479	79562	334285	34346	50363
North Central	Anurapura	6	8	26	5416	5416	1271	1779	14140	9270
	Polonnaruwa	1	1	7	800	800	86	2902	141	297
	Subtotal	7	9	33	6216	6216	1357	4681	14281	9567
Northern	Kilinochchi	2	3	10	3659	2269	1390	16578	617	328
	Mullaitivu	4	4	24	5836	3672	2164	17654	2566	1373
	Subtotal	6	7	34	9495	5941	3554	34232	3183	1701
Eastern	Trincomalee	4	5	15	4400	3688	1670	13716	5936	1522
	Batticaloa	2	3	16	5767	3468	2140	23090	11517	816
	Ampara	3	5	35	13309	5519	7525	44697	7006	4999
	Subtotal	9	13	66	23476	12675	11335	81503	24459	7337
Uva	Moneragala	2	3	28	19708	5385	14323	70501	3059	9841
Southern	Hambantota	3	3	22	4651	2142	2653	38064	2140	3041
	Subtotal	5	6	50	24359	7527	16976	108565	5199	12882
	Total	35	47	258	168392	57838	112784	563266	81468	81850

Source: DPD office

Component 3: Program Management

3.1 Overall Financial Progress of the project

Table-53. Financial progress as a source of funds as at 31st Dec 2020

Funding Source	Cumulative Allocation & Expenditure				Annual Allocation & Expenditure		
	Target (US\$. Mn)	Target (Rs. Mn)	Progress as at 31 st Dec (Rs. Mn)	%	Target (Rs. Mn)	Progress as at 31 st Dec (Rs. Mn)	%
World Bank	110	19,800.00	878.25	4.43	696.0	641.44	92.2
GOSL	10	1,800.00	98.356	0.056	98.35	79.92	81.3
Beneficiary	5	900.00	-		--	-	-
Total	125	22,500.00	976.60	4.34	794.35	721.36	90.81

Table 54: Financial Targets & Expenditures by components as at 31st Dec 2020

Component	Cumulative Allocation & Expenditure				Annual Allocation & Expenditure			
	Total Allocation (US\$. Mn)	Allocation (Rs. Mn)	Progress as at 31 st Dec (Rs. Mn)	%	Annual Allocation (Rs. Mn)	Expenditure during the month (Rs. Mn)	Total Expenditure as at 31 st Dec (Rs. Mn)	%
Agriculture Production & Marketing	37	6,660.00	304.14	4.57	300	67.27	285.15	95.1
Water for Agriculture	82	14,760.00	283.89	1.92	230	82.67	188.95	82.2
Program Management	6	1,080.00	388.57	35.98	264.35	28.95	247.26	93.5
Emergency Response	-	-	-	-	-	-	-	-
Total	125	22,500.00	976.60	4.34	794.35	178.90	721.36	90.81

Source: Finance Section: CSIAP

The total allocation for the year 2020 is Rs.794.35 Mn and the achieved financial progress of the project is around Rs.721.36Mn (90.81%). The cumulative financial progress also achieved Rs.976.6 Mn (4.34%) as indicated in Table-53.

3.2 Baseline Survey

Consultancy for Baseline Survey was awarded to TEAMS (Pvt) Limited. The total value of the consultancy was Rs.9.5 million. The Questionnaire survey, Data tabulation and Analyzing have been completed. Draft report of the Baseline Survey was submitted on 25th November 2019. The final Draft report also submitted by the consultancy firm and it is now finalized. Baseline Survey was completed and submitted to the PMU on February 2020.

3.3 Establishment of a GIS-Based M&E system for CSIAP.

As per instructions given by Mr. S. Manoharan, Task Team Leader (TTL) of the WB, initial steps have been taken to use new technology for M&E for CSIAP. As a result of this, initial GIS technology was used for the COVID Yala program with the collaboration of Mr. Sudakaran.

In addition, a discussion was held with a consultancy team, “IT Solutions” for further improvement of GIS-Based M&E system.

The third discussion was held with another consultancy firm “Geo EDGE” looking for another avenue to upgrade the GIS-Based system for CSIAP.

Finally, a meeting was held with some private-sector agencies and Dr. Manthrithilaka from IWMI for further improvement of the GIS-Based M&E system.

It was recommended to recruit a GIS-Based officer to the PMU to handle all the activities related to the PMU and DPD Offices.

The Additional Secretary (Agri-Technology) of Ministry of Agriculture requested the CSIAP to join the already initiated GIS-Based M&E system of the MOA without establishing a separate GIS-Based M&E system for the project.

The WB also agreed to the request and emphasized on the necessity to complete the GIS-Based M&E system before the end of Dec 2020, hence the duration of the project period is limited.

An awareness workshop on “Development of a GIS-Based National Agriculture Information System” was held by MOA for the relevant officers of the line agencies coming under the MOA. The Secretary of the MOA presided.

3.4. Annual Work Plan & Budget (AWPB) for “18 months” (July 2020 to Dec 2021)

A workshop was held on 20th & 21st of August 2020 for all the PMU and DPD staffs on the tentative AWPB prepared for the “18 months” commencing from July 2020 to Dec 2021.

The main objective of the workshop was to make aware the project team regarding the project objectives, the theory of change, result framework, what is M&E, indicator development, AWPB and its importance for project implementation. Data gathering, reporting, validation, reliability and timeliness of providing data etc. were also addressed. Based on these main aspects, the officers got awareness regarding the AWPB by components and emphasized what was the role of everybody towards the implementation of AWPB. The official website of CSIAP was also launched by the acting PD, Dr. Priyantha Weerasinghe on 21st of Aug 2020.

Figure-28: M&E Workshop MIIS



Explains the objectives of the workshop by PD



Explains what is M&E & its relationship to AWPB





Official Launching of CSIAP web site on 21st Aug 2020

3.4.1 AWPB in 2021 based on funds allocated by Treasury

18 months AWPB prepared for CSIAP was revised based on the funds Rs.3,710 Mn allocated by Treasury for the year 2021 and AWPB prepared with the participation of all the PMU staff, DPDs and other officers accordingly. This revised AWPB has been already approved by the Secretary of MOA. The Provincial and District AWPB also prepared based on the allocated funds and the summary of work plan is as follows:

Table-55 Summary of provincial allocation

No	Province	District	Allocations (Rs. Mn)
1	North Western	Kurunegala	685.5
		Puttalam	105.0
2	North Central	Anuradhapura	981.0
		Polonnaruwa	20.0
3	Northern	Kilinochchi	251.0
		Mullaitivu	400.0
4	Eastern	Trincomalee	214.0
		Batticaloa	79.0
		Ampara	145.0
5	Uva	Moneragala	363.0
6	Southern	Hambantota	389.0
7	PMU		78.0
	Total		3710.5

3.5 Information Education & Communications (IEC) Campaigns

Table-56: IEC, Training, Awareness & Workshops conducted as at 31st Dec 2020

No	Subject area	No planned (Target)	No conducted	Farmers			Officers			Cost incurred (LKR)
				Male	Female	Total	Male	Female	Total	
1.1	Campaigns	190	176	4,132	3,287	7,419	304	162	466	929,569
	Sub total	190	176	4,132	3,287	7,419	304	162	466	929,569
2	PRA related programs									
2.1	Annexure Seven Development (validation meetings)	45	59	1965	782	2747	312	143	455	250,320
2.2	HSAADP preparation	12	15				164	36	200	
	Sub total	57	74	1965	782	2747	476	179	655	250,320
3	CSA Practices & Technologies -Farmer Training									
3.1	Formation of Producer Societies	225	266	4759	3600	8359	312	139	451	217,817
3.2	Cluster Village Development Program (CVDP)	44	25	768	568	1336	12	4	16	134,335
3.3	COVID Yala	22	25	1460	772	2232	54	31	85	100,598
3.4	Mid-Season Cultivation Program	21	11	323	233	556	11	2	13	46,558
3.5	Nutritional Home Garden program	131	172	102	4207	4309	48	10	58	626,637
3.6	Maha season Agriculture Program 2020/21	21	58	1069	1609	2678	107	39	146	160,792
3.7	Thirappane FFS		5	81	47	128	11	6	17	232,000
	Sub Total	464	562	8562	11036	19598	555	231	786	1,518,737
4	Marketing & Value Chain Development									
4.1	Value Chain Development	4	4	46	23	69				
4.2	Value Addition & Post harvest Management	8	8	97	66	163				

4.3	Develop marketing linkages with private sector agencies	22	12	71	42	113	70	96	166	6,965
4.4	Formation of Social Audit Committee	25	35	232	131	363	40	20	60	15,751
4.5	Modernization of ASC	11	10	35	8	43	48	19	67	
Sub Total		70	69	481	270	751	158	135	293	22,716
6	Environmental, Social Safe Guard, & Gender Mainstreaming	11	3	664	824	1488	43	19	62	103,640
7	M&E Training									
7.1	Awareness Program for AWPB	13	10				86	75	161	3,000
7.2	Progress Review Meeting	24	18				140	125	265	79,300
7.3	District Steering Committee Meeting	23	14				338	84	422	271,911
7.4	Provincial Steering Committee Meeting	20	14				204	112	316	162,880
7.5	Any other training/workshops (Awareness on political representatives	1	1				57	8	65	84,150
Sub Total		92	60	664	824	1488	868	423	1291	704,881
PMU										
1	National Steering Committee Meeting		NC	NC	NC	NC	NC	NC	NC	
2	Government Pay Role System/	1	1				31	22	53	332,981
3	CSA Training /Gannoruwa ISTC	1	1				30	6	36	2,452,500
4	Action plan preparation/CBTI	1	1				29	10	39	270,855
5	Subproject proposal preparation for Marketing/CBTI	1	1				78	5	83	199,500
6	Construction supervision/CBTI	1	1				51	6	57	145,000
7	Government pay role system /Kalawewa	1	1				31	22	53	200,981
8	Finalization of tank list /HARTI	1	1				43	8	51	50,655
9	HSAADP Training program/	1	1				65	20	85	275,935
10	HSAADP Training program/NAQDA	1	1				80	21	101	220,544

11	Developing a strategy for 18 months of work plan/IS/MI	1	1				52	5	57	145,560
12	Tank Engineering survey /	1	1				91	4	95	151,525
13	Preparation of database/HARTI	1	1				55	8	63	73,610
14	Hydrological assessment & STEP procedure/HARTI	1	1				13	3	16	20,905
15	Social Audit committee Workshop/HARTI	1	1				41	5	46	123,847
16	AWPB 2021 Finalization/PMU	1	1				18	4	22	10,000
16	WEBEX meeting /WB		5				48	4	52	
17	WEBEX meeting /CSIAP		28				196	112	308	
18	Review Mission including Virtual Mission (WEBEX)		2	13	17	30	72	24	96	
Sub Total		15	50	13	17	30	1024	289	1313	4,674,398
Total		888	991	15817	16216	32033	3385	1419	4804	8,100,621

NC: Not conducted

Though many programs had been planned, the Project faced a lot of difficulties in conducting those programs due to the following reasons under the COVID pandemic;

- ❖ **Keeping social distance in meeting,**
- ❖ **Farmers were reluctant to attend meetings,**
- ❖ **Poor attendance of the officers for duties with the regulations imposed by the health authorities.**

However, project management and World Bank continuously conducted WEBEX meetings and updated all the officers on the day-to-day activities which resulted in minimizing the possible shortcomings and as a result of these efforts, 32,033 project stakeholders got awareness in terms of the project activities in year 2020 as indicated in the above Table-55.

3.5.1 Electronic & Print Media and other Programs conducted are given below:

Electronic & Print Media and other similar programs conducted by the CSIAP project are given below:

CSIAP on TV



27th December 2019

CSIAP activities and its present status discussed on Sooriya

Wimana - a live program on ITN

Dr. Priyantha Weerasinghe, Deputy Project Director and Acting Project Director, and Mr. Sisira Semasinghe, Agriculture Extension Specialist of the Climate Smart Irrigated Agriculture Project (CSIAP) participate in Sooriya Wimana.

23st January 2020

CSIAP and its objectives on the Sanhinda Live TV Programme on SLRC

Mr. Amal Arunapriya, Institutional Development & Capacity Building Specialist and Mr. Sisira Semasinghe, Agriculture Extension Specialist of the Climate Smart Irrigated Agriculture Project.



CSIAP's Radio Programmes



Activities of Climate Smart Nutrient Sensitive Home Garden and Cluster Village Development Program for the betterment of Sri Lanka.

Mr. Sisira Semasinghe, Agriculture Extension Specialist, Climate Smart Irrigated Agriculture Project in an exclusive interview with Lakhanda Radio on 29th July 2020.



24th July 2020

Harvesting under Yala 2020 to strengthen food production in Sri Lanka

On the news bulletins of four National Radio Channels.



05th June 2020

The Cluster Village Development Program is now underway

On the news bulletin of SLBC.



12th Apr 2020

CSIAP is moving forward to boost the Agricultural Economy and living standards

Dr. Priyantha Weerasinghe, Deputy Project Director and Acting Project Director, CSIAP gives exclusive interviews to five Radio channels.



24th January 2020

Climate Smart Irrigated Agriculture Project and its objectives.

CSIAP and its activities were broadcast in **Sinhala, Tamil and English** channels of SLBC.

3.6 Lessons Learned

The CSIAP Project has completed two years (2018 - 2020) and gained both positive as well as negative experiences during this period. It utilized this chapter to talk not only about the gains but also mistakes, and opportunities it lost when consider the past experiences and ongoing programs. After reviewing the past two years' performances of the project, we have experienced failures and the successes as well. This is an attempt to document the lessons we have learned, to motivate the project staff to continue with the positive things and to prevent the repetition of the past mistakes.

- ❖ Some of the project staff has not still realized the project objectives and Project Life Cycle. To make the project a success, we must create a sustainable, large local and foreign market for our beneficiaries at the final stage of the project. In this regard the Institutional, Marketing and Agriculture specialists of the project should work as a core team empowering farmer in increasing productivity, reducing cost of production while adding value to their produce.
- ❖ The thinking pattern and mindset of the officers in both the PMU and DPD offices who are coming from the State sector should be changed (Creative and innovative personalities must be considered when recruiting officers in future) Not only this, the creative ideas of the staff should be considered and everybody irrespective of the position should be given equal opportunities to express their ideas for the betterment of the project.

Agriculture & Marketing

- ❖ Developing a value chain approach with assured market linkages is needed to strengthen the close collaboration with the value chain actors including input suppliers, producers, intermediaries, collectors, processors and whole sellers, retailers and consumers. Facilitators and other stakeholders need to be coordinated entrusting the responsibilities.
- ❖ Awareness programs have to be conducted well in advance before the commencement of the monsoon season and initiate the sub-projects at field level. Training on technical matters needs to be demonstrated rather than class room lectures.

- ❖ All the Agric. Specialists should improve their collaboration with the Provincial Depts. of Agriculture, Interprovincial Department of Agriculture and CSIAP regarding the cultivation programs since some weak relationships were observed in some provinces.
- ❖ Support services and facilitation by the government agencies must be strengthened and the technical personnel should be accessible to farmers and they must devote more time with the farmers than before. This is beyond the control of the PMU.
- ❖ Project is always aiming to provide inputs free of charge or 50% subsidy through producer groups and then link them to the market. Project should ensure the sustainability of these producer groups in the long term to make the project interventions viable especially in the field of agriculture production and marketing.
- ❖ Marketing approach should be strengthened by creating entrepreneurship among the beneficiaries to sustain and step up in the ladder of life. Training programs over other creative items would enhance their lifestyle and social status. To achieve the above targets the view of officers of line agencies should be changed to motivate people towards entrepreneurship. Continuous self-improvement lessons and programs should be conducted to change the attitudes of the officers and the beneficiaries.
- ❖ Cultivation in time is one of the key elements of CSA practices, but it is not happening exactly in many locations. Therefore, it is needed to address this shortcoming immediately to avoid this situation in future. Similarly, all attempts must be taken to utilize the maximum capacity of rainwater.
- ❖ We have experienced delay in procurement process in many times. The performances of the provincial procurement staff are also not up to the standard. Procurement section of the PMU should be strengthened by recruiting more staff with procurement knowledge.
- ❖ Establishment of machinery hub should be implemented through the PPP process because past experiences of the DAD is not at satisfactory level in handling a machinery section.
- ❖ Capacity of the Monitoring Unit of the Ministry of Agriculture (MOA) should be strengthened to avoid the unnecessary delaying of the project activities.
- ❖ Revisit the process of Modernization of ASCs is required.

In terms of Component 2, Water for Agriculture, 50% of engineering staff is not available and most of them are part timers. Even today, main two positions, Civil Engineer and Hydrologist are vacant at the PMU. A revisit to the methodology of the tank rehabilitation is much needed.

SWOT Analysis should have done for Tank Rehabilitation process.

1. Strengths

- ❖ Systematic analysis should be done for hydrological and engineering survey.
- ❖ Participation and Capacity building of line agencies.
- ❖ Downstream Development through Farmer Organizations.
- ❖ Environment and social safe guard process.
- ❖ Social Audit system will enhance transparency and quality of work.

2. Weaknesses

- ❖ Hydrological studies are time consuming hence rehabilitation of irrigation system is getting delayed.
- ❖ Some line agencies have no adequate capacity to do the rehabilitation of tanks.
- ❖ Line agencies have their own government works thus given less priority for project activities.

3. Opportunities

- ❖ Project will enhance the capacity of line agencies, giving training and equipment.
- ❖ Proposed schemes in all the cascades can be developed; the forest tanks and other small tanks also can be rehabilitated.

4. Threats

- ❖ Due to long procedures of the studies, the rehabilitation programs are getting delayed, hence the government has expressed more concern over the project activities.

One lesson learned during tank rehabilitation is not to hand over many tanks as packages to a single contractor. Tanks in forest and small tanks which have a command area less than 10 acres (4.05 ha) should be excluded from the rehabilitation process; hence it is not economically viable.

3.7 Issues Identified & Recommendation

3.7.1 Delaying Establishment of District Units

District unit is one of the main implementation units of the project and it is not established yet, due to the delay of getting MSD approval for its cadre and it hampers the implementation mechanism. This situation mainly affects the Eastern, Northern and North-Western provinces. Eastern Province consists of three districts - Trincomalee, Batticaloa and Ampara. The Provincial DPD office is located in Trincomalee and has to travel more than 250km from the DPD office to some of its locations such as Lahugala in the Ampara district. Therefore, the establishment of District units is a much-needed requirement for the smooth functioning of project activities. However, this situation is not reported as an issue in Polonnaruwa District, due to its proximity to Anuradhapura DPD office and with its lesser number of tanks. **(Only 24 tanks)**

3.7.2 Role of Part-time officers

- ❖ The role of part-time officers who are attached to the PMU and the DPD offices are also crucial for the project performances too. The main objective of inclusion of part-time officers for the project was to enhance their capacity at the Ministry, District as well as Provincial-level considering the sustainability of the project. These institutions and the officers are responsible for the sustainability of the project activities when the permanent cadre of the project leaves at the end of the project period.

Normally, every officer is responsible for his/her immediate supervisor of the particular institute. However, these part-time officers are solely responsible for both immediate supervisors of the line agency and the CSIAP. Though they are responsible for the PD or DPD of the project, they are always under the obligation of the immediate supervisor of main office.

It is closely observed their commitment to the project activities is minimal other than a few officers. So that, it is recommended to re-consider the part-time officers' involvement with the project; changing part time positions to full time positions.

- ❖ **Vacancies of Full-time Hydrologist & Senior Engineer of PMU & full-time senior engineers of DPD offices have not yet recruited.**

These posts are presently handling by part-time Water Resource Management Specialists, appointed by the provincial level but it requires high technical knowledge and proper background and expertise knowledge of the subject. Hydrological studies, tank

engineering surveys, tank rehabilitation and modernization of Agrarian Service Centers have been already started and progressing without proper supervision. Therefore, it is an urgent need to take action to recruit a Senior Engineer and a Hydrologist for the PMU. This is the responsibility of the M & E section of the PMU to show the shortcomings of the process to avoid possible risks in the future to facilitate the smooth operation of the project.

Note: At present, a consultant Engineer for civil work has been recruited to oversee the current status of the Hydrological assessments & Engineering survey.

- ❖ At the same time, it is better to recruit one senior Agriculture Instructor to the DPD office to support the coordination and smooth handling of CSA practices at the provincial level.
- ❖ **Insufficient technical personnel in implementing agencies will cause difficulties in handling activities which have been assigned to them.**
In Northern Province, there is only one engineer to handle a huge workload. It is also recommended to appoint one senior technical officer to the PMU and the DPD offices with a full-time civil engineer. Therefore, it is recommended to recruit them immediately because delaying of appointments in these posts badly affect the monitoring, evaluation and even the procurement process.
- ❖ We have **experienced delaying in procurement process in many times**. The performances of the provincial procurement staff are also not up to the standard. Procurement section of the PMU should be strengthened by recruiting more staff with procurement knowledge.

3.7.3 Unequal distribution of tanks among provinces.

- ❖ According to the current statistics based on the PRA findings, the number of tanks added to the project is on the increase in many districts. Therefore, the project activities have been largely increased in some districts and the increasing workload is handled by the same staff. All the development activities of the project are remaining around these cascade systems thus it is needed a fruitful solution to prevent undue workload on some provinces.
- ❖ There are 45% of tanks out of the total project tanks to be rehabilitated is in the North-Western Province. With the additional tanks, no new staff recruited to the DPD office. There are 171 tanks in the Uva and Southern provinces (9.6%) but the staffs are twice higher than the NW province.

3.7.4 Recommendations

- ❖ Recruitment of Agriculture Instructors to each ASC division is much needed requirement for the smooth operation of the Component One, Production and Marketing. Commitments and the knowledge of the project objective is minimal and it is easier to handle AIs under the direct project administration rather than an officer working without side agencies. This situation is similar to handling the technical personnel who are working under DAD, PID and other similar agencies.
- ❖ Procurement division of the PMU should be strengthened adding more capable personnel.
- ❖ District Unit should be established immediately.
- ❖ Demarcation of provincial level project boundaries.