ANNUAL REPORT

2022

Climate Smart Irrigated Agriculture Project

Ministry of Agriculture

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Basic Information of the Project

Name of the Project	Climate Smart Irrigated Agriculture Project (CSIAP)
Implementing Agency	Ministry of Agriculture
Funding Agency	International Development Agency (IDA)
Source of Fund & Amount – Original (US$)	Total – US$ 140 Mn (IDA Credit- US$ 125 Mn, GoSL 10 Mn & Community Contribution 5 Mn)
Source of Fund & Amount – Revised (US$)	Total – US$ 125 Mn (IDA Credit- US$ 110 Mn, GoSL 10 Mn & Community Contribution 5 Mn)
Total Project Budget – Based on Designed Exchange Rate	22,500 Mn (US$ 1= 180 LKR)
Total Project Budget – Based on Current Exchange Rate	44,750 Mn (US$ 1= 358 LKR) *(According to IUFR rate i.e., Rs. 32,125 Mn.)*
Date of Loan Effectiveness	07th March 2019
Date of the Loan Agreement Signed	11th April 2019
Year of Implementation	2022
Project Duration	Six years (2018-2024)
Date of Project Closing	30th June 2024
Total Expenditure as of 31st Dec. 2022 (USD Mn. Calculated based on IUFR rate i.e., Rs. 257)	Rs. 9430 Mn (Cumulative) *(USD 36.7 Mn.)* Rs. 3852 Mn ((Annual) *(USD 14.9 Mn)*
Project Direct Beneficiaries	70,000 Farm Families
Total Targeted Project Beneficiaries	470,000 Individuals
Area to be Covered	375,000 ha
Project Locations	**Province** – **Districts** Northern – Killinochchi, Mullaithivu Eastern – Trincomalee, Batticaloa, Ampara North Central – Aniuradhapura, Polonnaruwa North-Western – Kurunegala, Puttalam Southern – Hambanthota Uva – Monaragala
Project Director (PD)	Eng. R.M. Bandara Rajakaruna
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Map of the project implementing river basins in Sri Lanka

Executive Summary

The Climate Smart Irrigated Agriculture Project (CSIAP) pleased to present the Annual Report for year 2022 of the Project which is implemented under the Ministry of Agriculture with the financial and technical support of the World Bank. The project started implementation from year 2019 and is continuing its implementation as planned to be ended up in mid-2024, covering 11 districts in six provinces namely Eastern, Northern, North Central, North western, Southern and Uva.

In past years, due to covid-19 pandemic and other social and economic crises happened in the country, implementation of project activities had been limited to beyond control, but in 2022 project activities were implemented as planned with less difficulties except high prices of goods and services that affected to some extent, but having good performance.

Project illustrated a better progress rather than the past years under each component. Under climate smart agriculture practices, accelerated home garden program was a good intervention where over 58,000 households implemented the program out of the project target of 66015 HHs. The CSIAP achieved its target of establishment of Thirappane Climate Smart Agriculture Farmer Training School that was opened on 04th December 2022 and now it is ready for conducting trainings with already prepared training plan and modules. First training has been planned to be conducted on the 13th January 2023. Cultivation of Yala, Maha and Intermediate seasons were implemented using CSA practices and the promotion of multiple cropping has increased cropping intensity among beneficiaries. Agricultural marketing support was given for the beneficiaries by arranging market linkages for producer societies with the reputed companies such as Keels, Cargills, Plenty Foods and Prima etc., that the details are given in the report. Construction of Agro-wells and agri-roads were also good interventions carried out during the year.

Rehabilitation of irrigation systems were continued as planned and up to now only 45 irrigation systems have been completed and the project has to give more efforts to achieve the set targets. Detailed information and current status on rehabilitation of irrigation systems are given in the report. Tree Planting Campaigns were also carried out with the objective of protecting vegetation of catchment areas to avoid soil erosion and silting up of the tanks. Project focuses on gender mainstreaming and gender inclusion in CSIAP and trainings/workshops on gender sensitization, gender empowerment, gender mainstreaming and prevention of gender-based violence have been conducted in all project provinces. Women participation in the project activities seems to be at a satisfactory level. 303 social audit committees have been established with their capacity building. Grievance

redress mechanism is successfully carried out by resolving 42 grievances out of the 48 grievances reported. Under the project management, development of GIS/MIS which would support the project to avoid the prevailing information gaps is another good achievement. MIS trainings were started in late December from Southern Province. The system will be in operation in early 2023 soon after the trainings for remain provinces are completed. Provincial level Annual work plans based on the ASC level plans were prepared in a workshop with field M&E officers and Annual Work Plan and Budget for 2023 was completed accordingly in December 2022 and sent to the Ministry of Agriculture for approval.

Mid Term Review Mission of World Bank (WB) was conducted in early second quarter of 2022 and MTR aide memoire was submitted. In addition, a WB implementation support mission was conducted in early fourth quarter of the year and mission report has been submitted. As to the recommendations of the above missions, actions have been taken to revise the result framework of the project with measurable indicators for smooth functioning and monitoring of the project activities . An outcome survey has also been suggested and actions are being taken to conduct such a survey in near future. Progress review virtual meetings with WB on the subject areas are conducted regularly which would support the project team to move forward minimizing identified gaps and issues. In addition, regular progress review meetings and National Steering Committee meetings have been conducted by the MoA with the participation of key stake holders of relevant officers from MoA, provincial and PMU staff.

A Finance Management Information System (FMIS) was also established in computerizing accounts system and officers have been trained. Annual allocation received for the year 2022 for project activities was Rs.mn.2500 but, since it was disbursed before the end of the year the project had to demand for an additional fund and, as a result Rs.mn.1450 received in the last quarter of the year to pay the bills in hand at the time. Accordingly, the total allocation for the year was revised as Rs.mn.3950, and the financial progress for the year was 98%, by disbursing Rs.mn.3852 out of the total revised allocation of Rs.3950 allocated for the project for 2022. Cumulative financial progress up to end of 2022 is 43%.

The project had to face challenges due to some of the issues such as reduction of initial allocation of project funds, inadequate annual budget allocation for the year 2023, not receiving GOSL part of the project fund to cover the project management and difficulty in getting enough imprest in due time.

CHAPTER 1

1.1 Project Background

The Climate Smart Irrigated Agriculture Project (CSIAP) is implemented by the Ministry of Agriculture under the World bank credit facility. The total project investment is USD 125 million, of which the Government of Sri Lanka (GOSL) funded USD 10 million, and the beneficiary contributed USD 5 million. The Project Development Objective (PDO) of the CSIAP is to improve the productivity and climate resilience of smallholder agriculture in the climatically most vulnerable areas of eleven districts 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 targeted smallholder farming communities. The Increase in water productivity at the farm level, increase in the agricultural productivity of crops, increase of the catchment area with water conservation practices, and increase in crop diversification practices are other specific objectives of the project. The project beneficiaries will be over 470,000 smallholder farmers who have below 2 ha of farmlands in 11 hotspot areas with 375,000 ha. Accordingly, this project is implemented in 11 administrative districts namely Kilinochchi, Mullaitivu, Anuradhapura, Polonnaruwa, Puttalam, Kurunegala, Trincomalee, Batticaloa, Ampara, Hambantota, and Monaragala districts.

Project interventions are implemented through three project components namely (a) Improving agriculture productivity by promoting climate-smart farming and developing marketing and market infrastructures with value chains (b) stabilizing water for agriculture through rehabilitation of catchments, tanks, and water infrastructures, and (c) project management, monitoring and evaluation to ensure achieving the PDO. The project management is structured to obtain support from Provincial Chief Secretaries, Provincial Departments of Irrigation, Provincial Departments of Agriculture, and Assistant Commissioners of the Department of Agrarian Services operated at the Regional Level. The implementation of project activities at the district level is supported by District Administrations and Divisional Secretariat Divisions (DSDs) and village level by Grama Niladhari Divisions (GNDs). At the project design phase, it has been identified 'Hotspot Areas' which are most vulnerable to climate events. These areas are subjected to the increased frequency and severity of climate events. The project has selected 21 number of cascades for development and 961 tanks for rehabilitation during the tenure of the project period.

1.2 Project Components

The project is planned to be implemented under four main components.

Component 1: Agriculture Production and Marketing (Finance – USD 31.3 Mn)

This component aims to improve agriculture productivity and diversification through adopting Climate-Smart Agriculture (CSA) practices and improved on-farm water management. This component consists of following two sub-components.

Sub-Component 1.1: Climate-Smart Agriculture & Water Technology (Finance - USD 17.5 Mn)

This subcomponent will support the adoption of CSA and will focus on demonstrating the effectiveness of CSA practices in farmers' fields through Farmer Business Schools (FBSs). Further is supported for leveraging information and communication technology and supporting the uptake of CSA practices by establishing Farmer Producer Groups (FPGs).

Sub-Component 1.2: Marketing (Finance – USD 13.8 Mn)

This subcomponent aims to strengthen the links between FPGs and the agriculture commodity markets by upgrading and/or rehabilitating critical market infrastructure. Moreover, it's being supporting farmers to access markets and develop sustainable links to agribusinesses. The common infrastructure for agri-commodity marketing (markets, storage, and access roads) and the construction and/or upgrading of Common Service Centers.

Component 2: Water for Agriculture (Finance – USD 73.0 Mn)

The objectives of this component are to facilitate the planning for water and other infrastructure necessary to support climate-resilient irrigated agriculture, the construction of the planned infrastructure, and the co-management of this infrastructure by central/provincial governments and the local community. This component has the following two subcomponents.

Sub-Component 2.1: Rehabilitation of Irrigation Systems (Finance – USD 68.0 Mn)

This subcomponent is financed to rehabilitate the irrigation systems based on plans derived from hydrologic modeling accounting for projected climate change in the project areas. This subcomponent assists in the rehabilitation of irrigation systems based on plans derived from hydrologic modeling accounting for projected climate change in the project areas. Moreover, the development of mini-watersheds within the hotspot areas (about 4,000 ha), including tank cascade

systems, stand-alone irrigation systems, rain-fed agriculture systems, and local administrative levels.

Sub-Component 2.2: Operation and Maintenance of Irrigation Systems (Finance – USD 5.0 Mn)

This subcomponent aims to ensure the sustainable operation and maintenance (O&M) of tank systems at the individual tank level and system-wide. The establishment of Cascade Management Committees (CMCs) for each of the cascades of minor irrigation tanks within the watershed-based boundary of the hotspot areas is the major activity of this sub-component.

Component 3: Project Management (Finance – US$ 5.7 Mn)

This component aims 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. For Information, Education, and Communication (IEC) campaigns, conducting of all project Monitoring and Evaluation activities and Safeguard activities are conducted under this component.

Component 4: Contingent Emergency Response (US$ 15 Mn)

Contingent Emergency Response Component (CERC) is allowed for the rapid reallocation of project proceeds in the event of a natural disaster or crisis that has caused or is likely to imminently cause a major adverse economic and/or social impact. In response to the Covid-19 pandemic, USD 15 million from CSIAP was put into 'CERC pool'. This component is supported agriculture production and ensure food security during the pandemic. Accordingly, finance of this component is given to supply of seeds.

1.3 Project Beneficiaries

The primary project beneficiaries will be over 470,000 smallholder farmers in hotspot areas (375,000 ha) in 11 administrative districts (Kilinochchi, Mullaitivu, Anuradhapura, Polonnaruwa, Puttalam, Kurunegala, Trincomalee, Batticaloa, Ampara, Hambantota, and Moneragala) spread across six provinces (Northern, North Central, North-Western, Eastern, Southern, and Uva) in the dry zone of Sri Lanka. Smallholder farmers consist of small farmers (1.0–2.0 ha of farmland) and marginal farmers (less than 1.0 ha). They will gain knowledge and technology transfer and access to infrastructure assets to enhance climate resilience in farming resulting in increased revenue from crop diversification and participation in emerging value chains. Many technical and

managerial staff of the participating agencies will benefit through training and capacity-building activities. The project will also promote the participation of youth and women in all key project interventions to ensure that they would benefit from the project activities. These districts have been selected based on its climatically-vulnerable hot spot areas through a rigorous data-based approach, which was a collaborative exercise between the Sri Lanka Unit of the World Food Program (WFP) housed in the Ministry of Disaster Management, the International Water Management Institute (IWMI) and the Department of Agrarian Development.

1.4 Project Outcomes

Five (05) outcome level Key Performance Indicators (KPIs) have been set up at the project design phase to assess the Project Development Objective.

- KPI 1: Increase in water productivity at farm level (kg/m^3)
- KPI 2: Increase in agriculture productivity of crops (%)
- KPI 3: Increase in the catchment area with water conservation practices (%)
- KPI 4: Crop diversification index (%)
- KPI 5: Direct project beneficiaries, segregated by gender (No.)

1.5 Project Implementation

The Project is implemented for over six years (2018-2024). The overall project implementation is the responsibility of the Ministry of Agriculture with the implementation support of PMU. The participating departments will carry out the project activities within their mandates, but coordinated by provincial DPD offices, with district units established at the Department of Agriculture (DoA)/Provincial Irrigation Department (PID)/Assistant Commissioner Agrarian Development (ACAD) offices and 47 divisional units established at Agrarian Service Centers (ASCs). The Project Management Unit (PMU) is the entity that takes the overall responsibility of implementing the project to achieve its desired objectives as planned which is under the purview of Ministry of Agriculture. Project implementation is carried out under the policy guidance and directives of the National Steering Committee (NSC), which comprises of senior officials of major stakeholder agencies including the private sector and the beneficiary communities and having conducted regular meetings.

CHAPTER 2

Physical Progress

2.1 Component 1: Agricultural Production and Marketing

The objective of this component is to improve agricultural productivity and diversification through the adoption of Climate Smart Agriculture (CSA) practices an improved on-farm water management. The activities under this component mainly focus on demonstrating the effectiveness of CSA practices in farmers through Farmer Business Schools (FBSs), Information and Communication Technology (ICT) for peer-to-peer learning, the supporting of the uptake of CSA practices by establishing Producer Groups, upgrading and/or rehabilitating critical agricultural-market infrastructure, supporting farmers to access markets and the development of sustainable links to agribusinesses. Activities of this component categorized in two sub-components as 1.1) Climate Smart Agriculture and Water Technology and 1.2) Marketing. Physical progress of the component thereby is given under two subcomponents.

2.1.1 Sub-Component 1.1: Climate Smart Agriculture and Water Technology

The project has clearly identified 06 Climate Smart Agriculture (CSA) practices, which could be implemented under the CSIAP funds. Accordingly, those identified CSA practices are climate smart home garden developments, climate smart agronomic improvements, introduction of micro irrigation with solar pumps, crops diversification, climate smart seeds production and promoting inter-seasonal cultivation. When preparing the consolidates action plans, the project mainly focused on the proportion of CSA practices since the CSIAP is an adaptation project. Therefore, the project has been prepared an action plan for the rest of the project period including above CSA practices. Initially the project was used the name of the cultivation programme names such as Maha, Yala and Mid seasons instead of these CSA practices. However, later the project was introducing these selected CSA practices to measure the outcome of the CSA practices introduce by the project. In 2023, the CSIAPP will be conducted an outcome study to check the extend of the adoption of CSA practices by the CSIAP beneficiaries. Progress of the planned cultivation extent using different types of identified CSA practices is given in the Table 1.

To fulfil the Project Development Objective (PDO) these key activities are implemented under subcomponent 1.1. They are, a) Conducting CSA and agricultural technology training for officers and project beneficiaries, b) Conducting exposure visits for farmers and officers, c) Establishment of model villages and demonstration plots, d) Implementation of cluster village development programs, e) Implementation of Yala, Maha and intermediate Season cultivation programs with CSA technology, f) Home gardening program and compost production program. The project was able to establish South-Asia's first Climate Smart Agriculture Farmer Training School at Thirappane, Anuradhapura District. In addition to that, the project was able to completely establishment of Thirappane Climate Smart Farmer Training School to give ToT for Agriculture Instructors (AIs) Lead Farmers. CSAIP is expected to train around 2,000 AIs and lead farmers before phasing out the project.

The activities related to subcomponent 1.1 which are implemented in the field are described below.

2.1.1(a) CSA practices adopted by the beneficiaries

As indicted in the table 2, the project was targeted to promote CSA practices around 35,000 ha covering all project areas and up to the end of 2022, it was able to achieve 70% of the target. The crop diversification is implemented especially in the field where paddy and OFCs (Other Field Crops) are cultivating. Here, two or several crops are cultivated in the same land during a specific period (i.e. yearly). Moreover, the Drip Irrigation systems and Solar Powered Water pumps have been given to the selected beneficiaries and promoted micro irrigation as a CSA practices. The inter-season cultivation has been identified as a key CSA practices in the Island, hence the project promoted Inter Season cultivation practices. After end of a major season (Maha or Yala) there is a time lap about 2.5 to 3.0 months and farmers are encouraged to cultivate during that season too as a climate smart practice with a low water consumption field crops such as Black gram, Cowpea and Soya beans etc. This practice is a more convenient CSA practice and a significant number of farmers could be adopted since it is a low-cost practice which can be implemented easily. The project was promoted home gardens development since its first year and it has been identified as a key intervention which is transferred more beneficial to the community. Therefore, with the guidance of the WB and MoA, the project decided to scaled-up the home garden

program from 5,500 households to 65,500 households covering all the possible households in the project area. Hence, the project was able to distribute inputs (seed packs, planting materials, grow bags etc.) for 63,539 households. Through this intervention, each household is covered 0.1 ha (1/4 Ac.) land area in their home gardens.

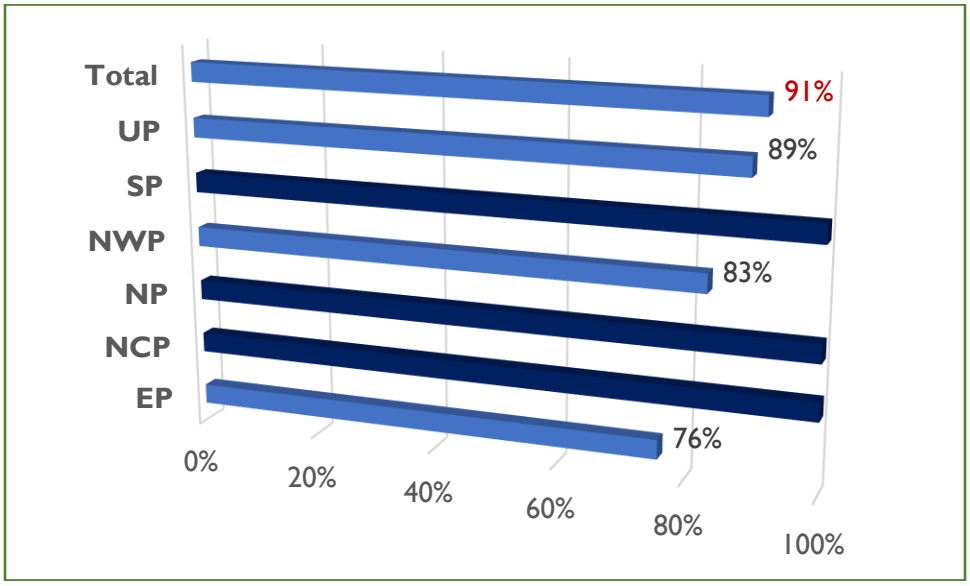
Table 1: Progress of the CSA practices (by 31st Dec. 2022) introduced by the CSIAP

CSA practice	Target (ha)	Progress (ha)	Achievement %
Crops diversification	1,880.0	1,286.6	68%
Micro irrigation systems establishment	376.0	194.8	52%
Inter-Season cultivation	1,800.0	1,213.3	67%
Climate-Smart home gardens	6500.0	6353.9	98%
Agronomic interventions	23,500.0	17,545.2	75%
CS seeds production	1,410.0	809.1	57%

To engage in such practices, those beneficiaries have participated in trainings conducted for them on Climate Smart Agriculture practices and Water Technology. As the project is conducting training on CSA practices and formation of Producer Societies (PSs) to work as an organized team to implement the project activities, farmers are encouraged to use the trained CSA practices in their agriculture production programs such as Yala, Maha and Mid seasons and even in the home garden production program as well. For further improvement of the knowledge on CSA practices, it is required to establish demonstration plots in selected villages where a considerable number of farmers are allowed to engage in establishing and demonstrating of the CSA practices in their farm lands. Hence, the project was able to introduce demonstration plots for selected crops in selected areas as a learning tool. Moreover, it was able to organize the beneficiaries as clusters to practice CSA practices for seed production. Hence, the Production villages have been established in potential areas as clusters and CSA practices were promoted among those continuously since 2019. This is associated with the investments in the implementation of the cultivation seasons with technology, agriculture assets, and services.

2.1.1(b) Conducting CSA and technical training for officers and project beneficiaries

Initially, the project was planned to conduct around 1,400 technical training for the beneficiaries and related officers of the stakeholders. By end of 2022, Southern Province, Northern Province and North-Central Province have been able to achieve their targeted number of programmes. Cumulatively, the project has achieved 91% progress of this intervention and it is comparatively significant achievement of the CSAIP. The following bar chart (graph 1) shows the achievement of the technical training conducted by each province.



Graph 1: Achievement of the technical training by each province

These technical farmer training programs are covered several on CSA has covered a set of topics listed below in the training programs which are important for mitigating the climate variability in the hot spot areas. Soil, moisture, and water conservation methods for climate change adaptation are used as key training themes. Also improved crop management practices for climate change adaptation and productivity improvement, Good Agricultural Practices and resource conservation techniques and Soil health and integrated plant nutrient management technical trainings are conducted. Moreover, Integrated Pest Management (IPM), On-Farm water management systems, protected agriculture, crop diversification, Climate smart home gardening, post-harvest technologies and Value chain development etc. trainings are also conducted.

Following table 3 illustrates the cumulative achievement of the trainings conducted as end of 2022.

Table 2: Progress of the CSA practices (by 31st Dec. 2022) introduced by the CSIAP

Province	Targeted no. of programs	CSA training conducted from 2019 to Dec 2021			CSA training conducted in 2022			Cumulative Progress (%)
		No of programs	No of farmers		No of programs	No of farmers		
			Male	Female		Male	Female	
EP	196	100	2,065	2,738	49	1,644	1,912	76%
NCP	503	347	3,920	2,612	156	1,359	2,059	100%
NP	253	142	1,361	2,240	111	938	1,021	100%
NWP	207	64	497	1,368	108	5,004	6,214	83%
SP	149	53	223	593	96	522	1,077	100%
UP	102	60	2,254	1,582	31	898	685	89%
Total	**1410**	**766**	**10,320**	**11,133**	**551**	**10,365**	**12,968**	**91%**

Pic 1: A technical training delivered in a Sesame field

Pic2: A training on moisture conservation

2.1.1(c) Training of Trainers (TOT) on Climate Smart Agriculture Practices (via Climate Smart Farmer Trainig School at Thirappane, Anuradhapura)

This activity has planned to train Agriculture Instructors (AIs) attached to the Department of Agriculture and Provincial Departments of Agriculture and Lead Farmers from the Farmer Organizations on CSA practices. The project established a Climate Smart Farmer Training School (CSFTS) in Anuradpahupra district and it was the first ever such training school established in the South Asia region. That was completed and opened on 04th December 2023, with the participation of key stakeholders. A comprehensive training schedules have been discussed, agreed and delivered and the first training was held on 13th January 2023. The training programme was scheduled for 3-days and totally 74 training sessions have been planned to conduct for 1850 farmers and officers by end of the implementation of the project. Curriculum for the training programs has been completed and training handbook was also prepared with the close guidance of a consultant selected for this especial activity. The project has identified several climate-smart agricultural practices that suit the identified ASC for the project intervention. The programs have been conducted by the resource persons in Mahailluppalama Field Research Center implemented under DoA. The ToT provided by them will be disseminated to the field farmers through AIs and lead farmers.

The CSFTS is used to train farmers and give hands-on experience on Climate Smart Agriculture (CSA) practices to address the challenges of building strategies for climate change mitigation, adaptation, and food security (crop productivity), which are closely related to agriculture and minimize their potential negative impacts and technologies to the beneficiary farmers of hot spot areas in 11 districts of six provinces. This school is located at Wagayakulama village of Thirappane, which is approximately 30 km South of Anuradhapura town in the North Central Province. The main objective of the establishment of this school is to enhance the capacities of support organization officials and farmer leaders to promote CSA technologies and practices in their villages. Subsequently, the project aims to impart their knowledge and skills on CSA practices to village-level potential farmers to respond to the adverse climate impacts in their villages. In addition, the project mobilizes trained leader farmers to organize training activities and disseminate knowledge on CSA practices among peer groups.

Pic 3: Side view of the school

Pic 4: Arial view of the school

Pic 5: Inside view of the school

Pic 6: Wide-angle view of the field of school

2.1.1(d) Establishment of Demonstration Plots

The purpose of establishing demonstration plots in selected villages is to give visibility and demonstrate the CSA practices to attract and promote the CSA-based farming among the project beneficiaries in the HSAs. The establishment of demonstration plots is facilitated by AI in the ASC and the project is provided a set of inputs free of charge to establish the demonstration and operation and maintain the demonstration plots as showcases to learn by the farmers how to do the CSA practices in the current context in the village. It is planned to establish 687 demonstration plots during the project period and 303 demonstration plots established by December 2021 and another demonstration plots established in 2022 by 88 farmers totaling 391 cumulative plots that achieved 58% project target by 2022 as indicated in the table 4.

Table 3: Progress of the establishment of Demonstration Plots

Province	Number of Targeted Plots	Demonstration plots established on CSA practices from 2019 to Dec 2021		Demonstration plots established on CSA practices in 2022		Cumulative number of Demonstration plots established on CSA practices		Overall progress as %
		No of plots	No of farmers	No of plots	No of farmers	No of plots	No of farmers	
EP	182	26	26	52	52	78	78	**43%**
NCP	225	106	106	9	9	115	115	**51%**
NP	168	77	77	6	6	83	83	**49%**
NWP	60	48	48	27	27	75	75	**125%**
SP	34	34	34	-	-	34	34	**100%**
UP	18	12	12	-	-	12	18	**67%**
Total	**687**	**303**	**303**	**88**	**88**	**397**	**397**	**58%**

2.1.1(e) Establishment of Cluster Villages

The cluster village development is a key area of promoting the adoption of the CSA practices in the project areas to mitigate the climate variability by showing the mitigation and adaptability measures that are being practiced through the farmers. All possible appropriate climate-smart practices are identified through the participatory approach with the participation of all technical officers and farmers in the village by starting the preparation of a resource map under this approach. The cluster village development includes climate-smart technologies, climate-smart information services, supportive institutions strengthening and local level planning and management considering every aspect of weather, water, soil, and other agricultural inputs like seed, bio-fertilizer, IPM method for pest and disease control and protection of crops from wild animals. It also considered the marketing aspect by exploring the opportunities to establish the business linkages with the private sector with the PS and PA in the areas where cluster villages are located. The priorities and sequencing of actions are based on the needs of the community giving special attention to social and environmental concerns. All interventions in the cluster villages are strictly assessed to identify the potential impact on society and the environment through the social and environmental screening process.

Table 4: Progress of the Development of Cluster Villages

Province	Project target (No of villages)	Cluster Village established from 2019 to Dec 2021			Cluster Village established in 2022			Cumulative progress of the CVDP			Progress %
		No of villages	Male	Female	No of villages	Male	Female	No of villages	Male	Female	
EP	30	4	235	125	-	-	-	4	235	125	13%
NCP	5	2	104	68	2	73	42	4	177	110	80%
NP	31	3	83	69	2	42	38	5	125	107	16%
NWP	20	9	176	65	-	-	-	9	176	65	45%
SP	1	1	18	5	-	-	-	1	18	5	100%
UP	10	10	135	56	4	122	28	14	257	84	140%
Total	**97**	**24**	**751**	**388**	**8**	**237**	**108**	**37**	**988**	**496**	**38%**

Cumulatively, the project was able to establish 24 cluster villages with the participation of 751 male and 388 female beneficiaries by 31st Dec 2021. In addition, 8 more cluster villages have been established in 2022 with the participation of 237 male and 108 female beneficiaries and currently those farmers are at the early stage of production. The overall cluster villages establishment progress against the project target was 38% as of end 2022.

2.1.1(f) Scaled-up home garden program

During the Covid pandemic situation, most of the vulnerable people in the Host Spot Areas were affected by food shortages and loss of income sources, especially the wage labor. Therefore, the government initiated the home garden development program to provide some sort of income source for the household while ensuring household food security. In line with this initiative, the project has developed the nutritional Home Garden development program to support the project beneficiaries to start the cultivation of fruit, spice, cereals, and vegetable during the covid period by providing planting materials and technical assistance to improve the home garden. This initiative, it helps to address the possible food scarcity that has resulted in post-Covid 19 to improve household food security to ensure the nutritional requirements of children, pregnant mothers, and elderly people and increase household income by producing vegetables and cereals for the market. The project field staff, especially the gender officers, have facilitated to

implementation of the nutritional home garden program since 2019 and the project has supplied all inputs required for the home garden development including seeds, tools, implements and storage facilities. Up to end of 2021, 5375 home garden established and 81% of the targeted households could be achieved. The following pictures shown how beneficiaries are actively participated for this program.

Pic7: Vegetables cultivated in grow bags

Pic8: Vegetables cultivated in manmade structures

Pic9: A yield from vegetable cultivation

Pic10: Back yard poultry introduced in NWP

Moreover, Sri Lanka is facing one of its worst and most devastating economic crises at present with alarming inflation, and weak government finances, which had been further distracted due to the COVID-19 pandemic. A shortage of foreign currency has meant that the country has been struggling to import and pay for essential commodities such as fuel, LP gas, medicines, and food commodities including milk powder. The shortage of fuel has led to cuts in electricity supply for

several hours per day which is restricted the operation of public services, operation of SMEs, and large-scale industries during the daytime and long queues outside fuel stations turn into violence and even deaths because of the restricted supply of fuel. Food prices and public transport costs are sky high and essential services like water, electricity, medical care, and stationery for the education and printing industry have been severely affected. Therefore, it was agreed both project and WB to scale-up the above home garden activity as a nutritional home garden program and it was designed to manage the impact of the prevailing economic crisis on households. Hence, a rapid scaling up program has been planned by the project to support nearly, 66,000 households by providing seed packs and 25 kg organic fertilizer bags and 50 grow bags for all households and 50% of the households will be received tools for home garden development and 10 chicks to start the poultry to find protein requirement of the house, especially for children, pregnant mother and elderly people in the household. Number of seed packages, tuber crops, fruit plants, grow-bags, 25kg compost bags and chicks distributed among beneficiaries are given in the table 6.

Table 5: Inputs distributed during the scaled-up home garden development program

Province	No of Seed packages distribution	No of Tuber crops distribution	No of Fruits plants distribution	No of Grow bags distribution	No of compost bags (25kg) distributed	No of Chicks distributed
SP	2,800	2,800	2,800	159,335	1,800	-
NWP	15,762	4,894	6,601	630,480	4,764	33,800
EP	10,000	10,000	10,000	656,520	10,000	-
Uva	19,500	19,500	10,000	200,000	19,500	-
NCP	7,477	7,477	7,477	124,615	2,122	9300
NP	8,000	8,000	8,000	320,000	-	-
Total	**63,539**	**52,671**	**44,878**	**2,090,950**	**38,186**	**43,100**

2.1.1(g) Implementation of seasonal cultivation programs using CSA technology

Seasonal wise cultivations, (Yala-season, Inter-season and Maha season) have been implemented in six project provinces followed by CSA practices of; Crop Diversification, Micro Irrigation, CS Seed Production, CS HG Development, Inter Season Cultivation and CS Agronomic

Interventions. Accordingly seasonal wise extent of cultivation and achieved progress is given in the table 7. Accordingly, up to now 40,506 beneficiaries cultivated 14,610 of paddy and other field crops and produced a total production of 33,734MT.

Table 6: Cumulative production from the seasonal cultivation program

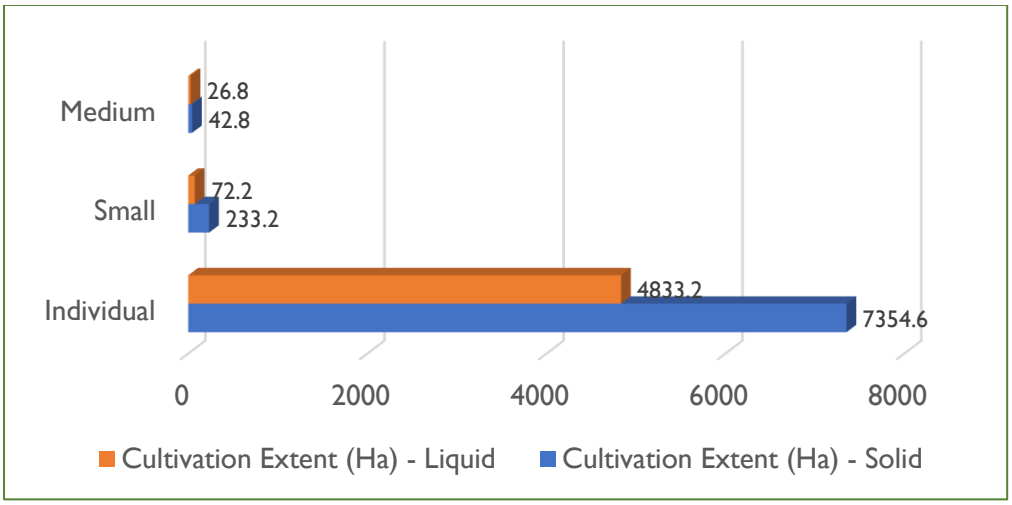
Crop	Extent (ha)	No. of Beneficiaries	Production (MT)
1. Paddy	408.5	668	911.7
2. Maize	6,456.6	10,263	19,427.9
3. Legume crops (Black gram/ Green gram/ Ground nut and Soya bean)	6,217.8	21,160	6,401.6
4. Sesame	1,060.1	3,055	647.9
5. Onion	258.3	1,476	5,322.4
6. Chili	79.9	791	762.5
7. Tuber crops	128.9	3,093	259.5
Total	**14,610.0**	**40,506.0**	**33,733.4**

Normally there are three type of seasonal cultivation programs that CSIAP is being involved in, namely, Maha-Season cultivation, Yala-Season cultivation, and Inter-season cultivation. The selected beneficiaries of this programs are benefitted with seeds, other planting materials, agricultural equipment and required technical trainings etc. The Maha cultivation season is implemented from November to mid-February while the Yala season is implemented from June to mid-September in each year. The inter season cultivation is done in between Yala and Maha seasons where more drought tolerant crops are cultivated and that cultivation program is implemented as a Climate Smart Agricultural practice. The project is promoted to make use of residual moisture for the cultivation of selected leguminous crops such as green gram, black gram, groundnut, and non-leguminous crops like sesame. Finger millet, and maize. The purpose of this program is to maximize the utilization of soil moisture for crop production that contributes to improving water use efficiency and agriculture production. Currently the production data are collected through the Agriculture Instructors associated with Department of Agrarian Development (DAD) and from the Provincial Departments of Agriculture. Normally, the production data from them are received after one to one and half months and the production data related to the last Maha-season held in 2022 was not included as those data will be received

during the month of February 2023. There are significant issues raised with this data flow and the reliability of the data. The production data are normally focused data computed by the offices using sample basis data generated through the crop-cutting survey. Therefore, CSIAP will collect these production data using mobile application (KoboToolBox) through a sample basis production measuring survey and Agriculture Facilitators who worked in the field will be responsible to collect those data.

2.1.1(h) Compost fertilizer production program

The solid compost production program was implemented from the beginning of the project, and it was cumulatively produced 29,768 MT by end of 2022. In 2021, project disseminated the technical skills among its beneficiaries to produce liquid compost and by end 2022, it was able to produce 231,939 liters. Initially, the project has identified beneficiaries at three levels based on their production capacities. Accordingly, interventions related to this have been delivered at Individual, Small and Medium level beneficiaries. The following graph (graph 2) illustrates the extents (ha) cultivated using the produced fertilizer at different levels.



Graph 2: Cultivated extent (ha) using compost at different level of production

As shown in the above graph, more than 90% production is done at individual level and they normally apply those production to their farm lands. Therefore, CSIAP will be more focused for individual level compost production rather than focusing on small or medium levels. Moreover, the project supplied of laboratory items for organic matter testing (CHNS - Keldhal system) investing Rs. 125 Mn. for laboratories in Peradeniya, Ampara, Mahailluppalama, Wariyapola,

Kilinochch, Monaragala and Hambantota. Now, the farmers are tended to check the quality of their compost especially at small and medium levels. CSIAP is expected this compost production activity will sustain as planned and farmers will also check the organic matter contents continuously before selling to customers or applying into the cultivation fields. The following table (table 9) shows the solid and liquid fertilizer production details by level of production i.e., individual, small or medium.

Table 7: Compost production progress at different levels

Province	No. of units established	Solid - Production Progress			Liquid - Production Progress		
		Quantity (MT)	Beneficiary No.	Cultivation Extent (Ha)	Quantity (Lit)	Beneficiary No.	Cultivation Extent (Ha)
EP	3360	2222	3360	222	10019	3360	240
NCP	4980	13090	4980	2509	7700	645	429
NP	869	2256	869	620	203000	484	580
NWP	6915	9820	7005	3562	5070	6915	3562
SP	988	1780	988	198	6050	506	101
Uva	1010	600	1010	520	100	50	20
Total	**18122**	**29768**	**18212**	**7631**	**231939**	**11960**	**4932**

2.1.2 Subcomponent 1.1: Agricultural Marketing

This sub-component aims to strengthen the links between Producer Groups and the agriculture commodity markets by upgrading and/or rehabilitating critical market infrastructure and by supporting farmers to access markets and develop sustainable links to agribusinesses. The key activities carried out by this subcomponent are; (a) Construction and/or upgrading of Common Service Centers (Agrarian Service Centers), (b) Common infrastructure for agri-commodity marketing (markets, storage, and access roads) and, (c) Establishment of seasonal paddy field electric fences.

2.1.2(a) Establishment of Producer Societies (PSs) and Producer Associations (PAs)

The project is designed to implement the project activities by the formation and strengthening of Producer Societies as a local level community organization that is involved with planning and management of local-level resources especially the water and natural resources to maximize the water productivity and agriculture productivity while keeping the balance between production and protection of the ecological balance. Therefore, it is expected to play a big role by the PS at the village level to take collective decisions on crop production activities by adopting CSA practices and identification and facilitation of market infrastructure improvement to enhance the access to market for the agriculture products and improve the connectivity by rehabilitation of agriculture roads. The PS deals with the production and management of society's activities. After reaching a certain level of maturity of the PS, the formation of the Producer Association has been made by clustering the PSs formed and functioning under the Agrarian Service Center. PA deals with all marketing aspects of the farmers in the HSA. Women's participation in the PS and PA are ensured and facilitated to hold leadership positions in the PS and PA and even in subcommittees established under the PS and PA to keep the gender balance. It is registered the PS initially under the DOA and now it is planning to register them under the Arian Development Act to provide legal acceptance. Project is in the process of restructuring of PS to convert crop-based PS to area village-based organization.

Table 8: Status of the formation of Producer Societies (PAs)

Province	Targeted No of PSs	PSs from 2019 to Dec. 2021				In 2022				Cumulative No. of PSs	Cumulative Progress (%)
		No of PSs	No. of program conducted	Total No of Members		No of PSs	No. of program conducted	Total No of Members			
				Male	Female			Male	Female		
EP	60	57	69	2819	1327	3	8	49	85	60	100%
NCP	120	6	6	106	124	114	114	1501	1864	120	100%
NP	50	-	-	-	-	47	45	-	-	47	94%
NWP	230	98	87	1498	1686	54	45	1398	2270	152	66%
SP	65	60	65	1142	1944	4	5	48	121	64	99%

UP	50	33	33	362	349	11	11	456	462	41	56%
Total	**575**	**314**	**320**	**5927**	**5430**	**250**	**245**	**1902**	**2853**	**484**	**86%**

Project plan is to establish Producer Associations (PAs) at ASC level and 47 ASCs are under purview of the Project. However, considering the price geographical situation, the project decided to establish 45 PAs. Accordingly, the overall project target for the formation and strengthening of PA is 50 and by now 25 PAs have been formed and are in operation to facilitate marketing and value chain management activities to establish linkages with the private sector. The achievement of PA formation against the project target of 45, is 47% and over 5,000 beneficiaries are members of these 24PAs, as shown in Table 10.

Table 9: Establishment of Producer Associations

Province	Targeted No of PAs	PAs from 2019 to Dec. 2021				PAs formed in 2022				Cumulative no. of PAs	Cumulative progress (%)
		No of PAs	No. of program conducted	Total No of Members		No of PAs	No. of programs conducted	Total No of Members			
				Male	Female			Male	Female		
EP	13	-	-	-	-	3	3	218	77	3	23
NCP	6	-	-	-	-	1	1	681	789	1	16
NP	9	-	-	-	-	6	6	22	20	6	67
NWP	12	02	02	198	233	10	10	1300	1453	12	100
SP	2	1	1	111	59	1	1	39	64	2	50
UP	3	-	-	-	-	-	-	-	-	-	-
Total	45	**3**	**3**	**309**	**292**	**21**	**21**	**2260**	**2403**	**24**	**47%**

2.1.2(b) Linking Producer Associations (PAs) to the market

The project supports to make market linkages for Producer Associations with marketing entrepreneurs and, up to the time Producer Associations are established, it has been planned to make market linkages with Producer Societies with a view to avoid any marketing issues faced by the farmers. Once the Producer Associations are established, those PAs were linked with the market and accordingly in the year 15 Producer Associations have been linked with reputed marketing entrepreneurs such as Keels, Cargills, Plenty Foods, Golden Food ltd, CBL, MAS, Prima Ceylon and Maliban etc. 30 producer societies are also catered by such market linkages. The Table 10 shows the details of market linkages established with different buying institutions and the food crops those buyers are agreed with to purchase through PAs.

Table 10: Details of buyers linked with PAs for marketing

Crop	Buyer	Remarks
Sesame	**(1)** Golden Food Ltd.	Export oriented buyer & agreed to purchase any quantities
	(2) Worldwide Commodity Pvt Ltd.	Large scale processing capacity available
Maize	**(1)** Maliban Biscuits Pvt Ltd. **(2)** Plenty Foods Pvt Ltd.	Infant food processors
	(3) Golden Food Ltd. **(4)** Prima Ceylon Ltd.	Animal feed
Green gram	**(1)** Cargills **(2)** Keels **(3)** Worldwide Commodity Pvt Ltd. **(4)** Plenty Foods Pvt Ltd.	highly competitive demand from local buyers
Black gram	**(1)** MA's	Buyer linked with PSs in NP
Ground nut	**(1)** CBL **(2)** MA's **(3)** C.W. Mackie Ltd.	Buyer linked with PSs in NP
Vegetables	**(1)** Keels supermarket network **(2)** Cargills Supermarket network	Linked with PAs in SP
Green gram, Black gram, Cowpea, Ground nut and Paddy	Seed and Planting Material Development Center, DOA	08 PSs in NWP and 06 Producer Societies in NP are involved and provided seed materials under SCS certification

PSs are also linked with the market under facilitation and supervision of PAs. Accordingly, the table 11 shows the market linkages established at provincial level with PAs and until such time the PAs are established, the PSs engaged to implement the activity.

Table 10: PSs and PAs linked with markets

Province	No. of PAs linked to different buying companies	No. of PSs catered by such linkages	No. of Beneficiaries Involved
NWP	07	04	355
NCP	04	01	1990
EP	-	07	280
SP	04	-	789
NP	-	19	402
TOTAL	**15**	**31**	**3816**

2.1.2(c) Rehabilitation of Agro-Wells

Rehabilitation of existing agro-wells is selected to implement with a view to provide irrigation for the lands where tank irrigation supply is not assured for. The project has identified 1260 agro-wells to be rehabilitated to ensure irrigation supply. Up to now, 499 wells have been rehabilitated and 686 wells are under construction from which 76 wells are in the progress of over 50%.

Table 11: Progress of Rehabilitation of Agro-wells

Province	No of Agro-Wells targeted	No of wells Completed	Physical Progress of on-going construction				Total
			<25%	25-50%	51-75%	76-99%	
Eastern	200	76	25	19	23	17	160
North Central	550	293	45	-	6	-	344
Northern	275	22	-	4	3	4	33
North-Western	110	42	-	-	-	9	51
Southern	63	43	8	5	3	2	61
Uva	62	23	4	1	5	4	37
Total	**1260**	**499**	**82**	**29**	**40**	**36**	**686**

2.1.2(d) Rehabilitation of Agri Roads

Access roads are a vital infrastructure to enhance farmer market access. Therefore, the project planned to rehabilitate Agri-roads for the benefit of farmers to access markets. During the period 40.5 kms length of Agri-roads have been commenced work and 8.3kms length of roads have been completed.

Table 12: Progress of Rehabilitation of Agro-Roads

Province	Length of Agro- Roads commenced work (Km)	Length of Agro- Roads Completed (Km)
EP	7.76	1.60
NCP	12.6	5.50
NP	7.74	-
NWP	4.00	-
SP	5.99	5.99
UP	2.31	2.31
Total	**40.45**	**8.30**

Pic11: Rehabilitated agro-well

Pic12: Rehabilitated agri-road

2.1.2(e) Modernization of Agrarian Service Centers (ASCs)

The project invested to renovate 47 ASCs in all hotspot areas and nearly Rs. 10-15 Mn was spent based on the rehabilitation requirements of the centers. Also, those centers have been equipped with agriculture machineries and project invested Rs. 250 Mn. The following pictures shows some machineries distributed in ASCs.

Table 13: Machineries distributed in ASCs

Province	No. of ASCs	Item Distributed				
		Drum Type Manual Paddy seeders	Low land power weeders	Walk behind type paddy transplanters	Paddy combined Harvester	4-whel tractor (2WD)
SP	4	8	16	16	2	1
NWP	11	22	44	44	-	
EP	12	24	48	48	-	
NP	7	14	28	28	-	
NCP	10	20	40	40	2	
UVA	3	6	12	12	-	
FTS/Thirappane	-	1	1	1	-	
Total	**47**	**95**	**189**	**189**	**4**	**1**
Total Items		**478**				

Pic13: Machineries distributed in ASCs

2.1.2(f) Establishment of seasonal paddy field electric fences

The Community-based seasonal paddy field electric fencing is the most effective non-confrontational method of protecting crops, home gardens and settlements. Community-based fences are entirely constructed and maintained by people who face elephant depredation and provide immediate and sustainable relief to them. The appropriate model of community-based seasonal paddy field electric fencing for paddy fields that have 'seasonal-fences' constructed by farmers when they start the cultivation, removed at harvest, and stored till the next cultivation season. The method has been developed by the Centre for Conservation and Research (CCR) and piloted in over 40 paddy fields in the Kurunegala, Hambanthota, Anuradhapura and Trincomalee districts. Accordingly, seasonal paddy field electric fencing is a sub-project, which is planned to be implemented in 11Districts in 06 project provinces. The Dept. of Agrarian Development (DAD) will implement this sub-project and the Provincial Deputy Project Director's Office of CSIAP will closely coordinate project activities. The DAD has started establishment of institutional mechanism within the department to implement this program in a sustainable manner. Therefore, the DAD has issued a Circular No. 07/2022 on 27th June 2022 to establish the institutional mechanism for implementation of seasonal paddy field electric fencing program.

The objectives of this sub-project are to facilitate the farmers to find a sustainable solution to protect their crops, harvest and farmlands from wild elephants, safeguard lives of both humans and animals, increase annual farmer income, promote farmers to cultivate all farmlands with confidence, train farmer leaders/organizations through the DAD to help the FO in establishing and maintaining the fences, increase women involvement of farming activities by ensuring the protection from Wild elephants' attacks and crop damages and minimizing the social issues within the family. The Project planned to make 290 fences, with a length of 1206kms, covering 8546ha, that benefits for 20,451 families in the six project provinces. Initial requirements such as preparation of sub-project proposals, obtaining WB clearance for proposal, bid preparation, and awarding contracts etc. for implementation of this sub-project have been carried out. Accordingly, up to now contracts have been awarded to implement the sub-projects in Kurunegala and Puttalam districts. Bid preparation is carried out in Anuradhapura, Polonnaruwa

and Hambantota districts while awaiting World Bank clearance for sub-proposals in Trincomalee, Mullaitivu and Monaragala districts. Current implementation status of this sub-project is given in detail, in the table 12.

Table 14: Implementation status of seasonal paddy field electric fences

No	District	No. of DSD	No. of ASC	No. of GND	Fence length	Covered area (Ha)	No of fences	Estimated cost from CSIAP (M) LKR	Benefitted families	Status
1	Anuradhapura	5	7	27	80.8	1088	27	36	1475	Bid Preparation
2	Kurunegala	5	8	34	441.5	1878	54	138	5385	Contract awarded
3	Puttalam	3	4	13	191.7	1170	58	78	2763	Contract awarded
4	Hambanthota	3	3	39	112	773.5	48	42.5	1322	Bid Preparation
5	Trincomalee	4	5	8	61.3	704	27	40	1870	Proposal submitted for WB clearance
6	Kilinochchi	2	3	8	90.5	801.2	17	46.4	1900	SPP preparation
7	Mullaitive	4	4	16	131	1282	30	78	4190	Proposal submitted to WB clearance
8	Polonnaruwa	1	1	2	7.5	99	2	*	69	Bid Preparation
9	Monaragala	2	3	10	89.7	751	27	44.4	1477	SPP submitted to WB
Total		**29**	**38**	**157**	**1206**	**8546**	**290**	**503.3**	**20451**	

* ***Estimates in Anuradhapura district's estimate***

2.2 Component 2: Water for Agriculture

The activities which are implemented under this component mainly focus on the planning for water and other infrastructure necessary to support climate-resilient irrigated agriculture, construction of the planned infrastructure, and co-management of this infrastructure by central/provincial governments and the local community. This component has two sub-components and progress is given under those sub-components.

2.2.1 Sub-Component 2.1: Rehabilitation of Irrigation Systems

Under this sub-component, a technical assistant is given to support hydrology modelling and the preparation of Hot Spot Area Water Management Plans. Moreover, the rehabilitation, modernization, and repair of existing cascade & village tanks, construction of recharge wells in the tank beds, develop drainages, development of flood protection infrastructure are key activities conducted under this sub-component. According to the design the implementation process is started with an engineering survey of the tanks to get the capacity and condition of the tanks and thereafter the hydrological modeling to do the water balance and stability analysis to determine the additional storage capacity and improvement needs for the headworks and downstream canal system. Based on the hydrological analysis, rehabilitation of structures is proposed for developing detailed designs and cost estimates for preparing the tender documents for the bidding process.

The progress of this component is given in the table-14. Accordingly, project planned to complete 488 tanks/anicuts selected for rehabilitation. Up to the end 2022, 45 irrigation systems have been completed while 294 irrigation systems have been started for implementation.

Table 15: Progress of rehabilitation of tanks/anicuts

District	Province	Tanks/ Anicuts selected for rehabilitation	Works In-Progress	Works Completed	
				Tanks	Canals completed by the Fos
Kurunegala	NWP	116	104	3	17
Puttalam		30	30	-	
Hambantota	SP	72	49	26	2
Monaregala	UP	38	20	1	
Mullaitivu	NP	52	9	-	
Kilinochchi		36	17	-	
Trincomalee	EP	29	8	-	
Batticaloa		23	11	2	
Ampara		20	17	1	
Anuradhapura	NCP	62	22	12	
Polonnaruwa		10	-	-	
Total		**488**	**287**	**45**	**21**

The current economic crisis has severely impacted overall project progress, especially for tank rehabilitation and agriculture production due to huge price hikes of the construction materials and agriculture inputs. Therefore, civil works already awarded for the rehabilitation have been temporally demobilized the contractors claiming the price escalations incurred for the construction work they completed and yet to be completed. Most of the civil works contract agreements are not included the price escalation clause and some of the contract periods are less than 4 months. Therefore, accommodation of escalated prices for allowing to pay was difficult. After the cancelation of project fund the initial cost allocated for tank rehabilitation was revised and the number of total tanks were reduced from 961 to 488. Therefore, based on the fund availability, CSIAP prioritized the tanks based on the number of beneficiaries per tank, total command area (in Ac.), investing cost per family and water reliability (using WEAP model) etc. Accordingly, list of tanks has been distributed into 4 categories (A, B, C and D) where that exercise was assisted to identify most prioritize tanks.

Pic13: Tank and Down Stream rehabilitations

2.2.2 Sub-component 2.2: Operation and Maintenance of Irrigation Systems

This subcomponent aims to ensure the sustainable operation and maintenance (O&M) of tank systems at the individual tank level and systemwide. Accordingly, the establishment of Cascade Management Committees (CMCs) for each of the cascades of minor irrigation tanks within the watershed-based boundary of the hotspot areas is the key activity of this sub-component. Also, the strengthening of FOs that have been set up to manage each tank and designing and implementing a monitoring system for water use and availability are other specific activities of this sub-component.

2.3 Component 3: Project Management

Information, Education and Communication (IEC), Monitoring and Evaluation, Social and Environmental Safe-guard and staff training, orientation and capacity building activities are included under this component.

2.3.1 Information, Education and Communication (IEC)

Providing information while educating the community in the project area is necessary to win the target population for the project implementation. IEC campaigns need to be conducted on project policies, procedures, and guidelines, especially at the field level. The prime objective of this step is to make all stakeholders aware adequately of the project prior to commencing of the planning process to minimize possible issues and get community participation in maximum level for the planning process. Moreover, this step is very essential to make political and administrative authorities and especially the public aware of the Project's procedures and policies. IEC campaign is conducted from national to GND level prior to the project preparation to avoid possible pitfalls. The PMU provides necessary materials to implement the IEC campaigns to the provincial DPD office and DPD offices decide to conduct provincial and district level. The Producer Societies are assisted the Agriculture Facilitators to conduct the IEC campaign at the GND and Village level. Accordingly, the project has been conducted several Information Education Communication (IEC) campaigns at the village, Divisional, ASC and district levels in all 11 districts to educate and provide insights about the project before starting the project intervention in the HSAs. After the IEC campaign, farmers in the HSAs are encouraged and motivated to make use of the project activities by supporting them by providing input materials, tools, implements, and technical assistance to adopt the CSA practices. Up to now more than 900 IEC campaigned have been conducted with the participation of around 98,000 beneficiaries.

2.3.2 Social and Environment Safeguard

Environmental, social and gender safeguard policies are designed to prevent and mitigate undue harm to people and their environment in the implementation of specific projects activities and to ascertain whether those benefits reach the target farmers. CSIAP safeguard is complying with the

World Bank safeguard policies and are carefully examined proposals on how to achieve due to compliance with safeguard policies. Therefore, sub-project preparation is 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 concerned to 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 and social benefits to the project areas through the scale-up of climate-resilient agricultural technologies and farming practices that help improve soil health, efficient use of water 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 Hotspot Area Agricultural Development Plans (HSAADP) and negative environmental impacts are not identified and mitigated properly. An Environmental Assessment and Management Framework (EAMF) has been prepared to guide the screening of activities on physical investments, Technical assistance, Project supported advisory and policy support interventions and resulting implementation from an environmental perspective and mitigation actions to manage their environmental impacts including preparation and implementation of Environmental Assessments(EA) and Environment Management Plans (EMPs) to address site-specific risks and impacts and subsequent monitoring and reporting requirements. In addition, that SESAs will be undertaken to be integrated into the village level plan. The following tables have shown the status of social and environmental safeguard processes and gender inclusion in project activities.

Preparation of Environment Safeguard Screening reports (ESSR) and Environment Safeguard Management Plans (ESMP), Conducting tree planting programs, Maintain Grievance Redressal mechanism, Gender development programs are the main activities conducted under the Social and Environment Safeguard program of the CSIAP.

2.3.2 (a) Preparation of ESSRs and ESMPs

Table 16 highlights the progress of ESSR and Environment ESMP prepared on different types of project activities such as tank rehabilitation, agri-road rehabilitation, cultivation programs and agro-well rehabilitation. Accordingly, up to now 50 reports for tank rehabilitation, 18 reports for agri-road rehabilitation, 30 reports for cultivation programs and 09 reports for agro-well rehabilitation have been submitted.

Table 16: Provincial wise ESSR/ESMP completed against different project activities

Province	No of ESSRs/ESMPs Completed for tank rehabilitation	No of ESSRs/ESMPs Completed for Road rehabilitation	No of ESSR/ESMP Completed for Cultivation Program	No of ESSR/ESMP Completed for Agro-well rehabilitation
EP	17	4	5	2
SP	9	2	4	1
NP	14	2	6	2
NCP	3	6	5	2
UP	4	2	5	1
NWP	3	2	5	1
Total	**50**	**18**	**30**	**9**

2.3.2 (b) Grievance Redressal Mechanism

Grievance Redressal Mechanism is being implemented by the project at Divisional, Provincial and National level. Grievance Redressal Committees are appointed to implement this activity and to-date progress is given in the table-17. Accordingly, up to now 143 grievance redressal committees have been established and out of the total 48 grievances reported, 46 have been resolved.

Table 17: Progress of Redressed Grievances

Province	No of GRCs Established				Total	Reported No.	Resolved No.	Unresolved No.
	Provincial	Divisional	ASC	SAC (GN)				
NP	-	06		27	33	01	01	-
SP	-	03		22	25	17	17	-
NWP	01	08		19	28	10	10	-
NCP	-			13	13	14	13	01
UP	-	01	03	19	23	05	04	01
EP	-	03		18	21	01	01	-
Total	**143**				**143**	**48**	**46**	**02**

2.3.2 (c) Tree Planting Campaign

To implement the sub-projects proposed by the project, implementing agencies suggests for removing the number of trees which are in the subproject area. Safeguard officers have instructed the implementing agencies to minimize the tree removal as much as possible. The trees proposed to be removed are located on the tank bund and the availability of trees in the tank bund causes water leakage of the tank. The safeguard officers seek possibilities to rehabilitate the bund without removing trees. If it is not possible to attend to rehabilitation work without removing, it has been planned to grow number of trees through a tree planting campaigns as a remedial action to this issue.

2.3.2 (d) Gender Mainstreaming and Gender Inclusion

Gender action plan was prepared by the gender development officer of the PMU, and it was implemented by the Gender Development Officers of the PDPDO to ensure the gender inclusion in all the project activities under the CSIAP. CSIAP has conducted the gender sensitization trainings/ raise awareness on the prevention of gender-based violence among the community and the contractors, also carried out the discussion with the women group during the screening process to raise the gender sensitization awareness in the subproject area. Below given table shows the number of programs conducted in terms of gender sensitization which includes discussion with the women's group on raise the gender awareness, gender sensitization training/ meetings/ celebrated women days, attitude changes, prevention of gender based violences,

brainstorming session on gender inclusion from grassroot level to national level. Progress of the gender division as bellow:

Table 18: Gender development trainings conducted in 2022

Province	No. of Programs conducted in 2022
EP	26
NCP	14
NP	10
NWP	09
SP	22
Uva	22
PMU	02
Total	**105**

Gender-wise participation for the different programs and activities of the project in 2022, are given in the table 19.

Table 19: Gender-wise participation in project interventions

Activity	**Male participation (%)**	**Female participation (%)**
Gender sensitization, gender empowerment awareness/training	34%	66%
CSA training	39%	61%
Exposure visits on experience sharing on CSA practices	57%	43%
Social Audit Committee involvements	62%	38%
IEC campaigns	55%	45%

It clearly says that almost all the activities it was ensured the at least 30% of female participation in the hotspot areas.

Further, the project has also developed several articles and published in the project website in highlighting the achievements in terms of women's economic empowerment in agriculture sector supported by the project.

- "Empowering Women for Household Food Security and Rural Resilience: Evidence from Unique Home Garden Programme in Sri Lanka" https://csiaplk.blogspot.com/2022/03/empowering-women-on-household-food.html
- "Empower Women to Address Food and Nutrition Security in Sri Lanka" https://csiaplk.blogspot.com/2022/10/ewafns151022.html
- "Empowering women for ensuring the Nutritional Food Security of the Household and increasing farmer income under the Prevailing Economic Crisis in Sri Lanka" https://csiaplk.blogspot.com/2022/10/empowering-women-for-ensuring_17.html

In addition to the above CSIAP has implemented the COC to Prevention of Gender-Based Violence. Nealy 57 COC – Prevention of GBV attached in the contractor's bidding documents as employees part of agreement. However, 117 individuals (Contractors and their staffs) have signed the agreements in 2022 to prevent the gender based violences in the construction sites in 2022. In addition to the above activities, Gender Development Officer coordinated the implementation of scale up home gardening program from May to November and arranged 20 progress review meetings by the GDOs of the PMU in 2022.

2.3.2 (e) Social Audit Committees (SACs) established

Table 20: Social Audit Committees established in provinces

Province	Project Target	SACs up to end 2021		SACs in 2022	
		Societies Formed	Participants	Societies Formed	Participants
EP	70	25	160	21	139
NCP	74	12	84	12	56
NP	70	21	147	33	231
NWP	167	16	135	46	230
SP	152	54	312	11	58
UP	94	33	261	19	133
Total	**627**	**161**	**1099**	**142**	**847**

2.3.3 Monitoring and Evaluation

Project Monitoring and Evaluation activities are carried out in collaboration with the M&E Officers allocated to provinces by the M&E unit of PMU. M&E Officers have been allocated to provinces but, a vacancy exists only for Northern Province, but it is covered by other officers in the provincial office. The main tasks carried out by the M&E unit during the reporting period were submission of timely reports (Monthly, Quarterly and Annually), Preparation of Annual Work Plan with Budget as a collective effort, participation in progress review meetings and presenting the progress, planning for an outcome survey, supporting re-structuring matters, and field monitoring visits.

2.3.3(a) Planning and Reporting

Preparation of Annual Work Plan with Budget for 2023 was prepared in December 2022, in line with the proposed plans at ASC level and then converting those plans to Provincial level. Field M&E officers supported preparation of ASC level plans in collaboration with the respective officers of the provinces and finalized the ASC and provincial plans in a workshop with M&E officers in mid-December 2022. Accordingly finalized plan has submitted for MoA for necessary approval. Monthly reports to Ministry of Agriculture (MoA), Department of Project Management and Monitoring (DPMM) were submitted in due dates and quarterly reports to DPMM, and WB have been submitted. Annual Report for the year 2022 will be prepared and submitted before end of January 2023. In addition, the information/reports required by MoA from time to time have been submitted.

2.3.3(b) Outcome Survey

An outcome survey has been planned to be conducted early 2023, and a concept note has been drafted and to be sent for WB clearance. As an initial stage, it has been planned to conduct this survey by the M&E unit independently with the support of Agricultural Facilitators (AFs) and M&E officers in the field.

2.3.3(c) Development of GIS based Management Information System

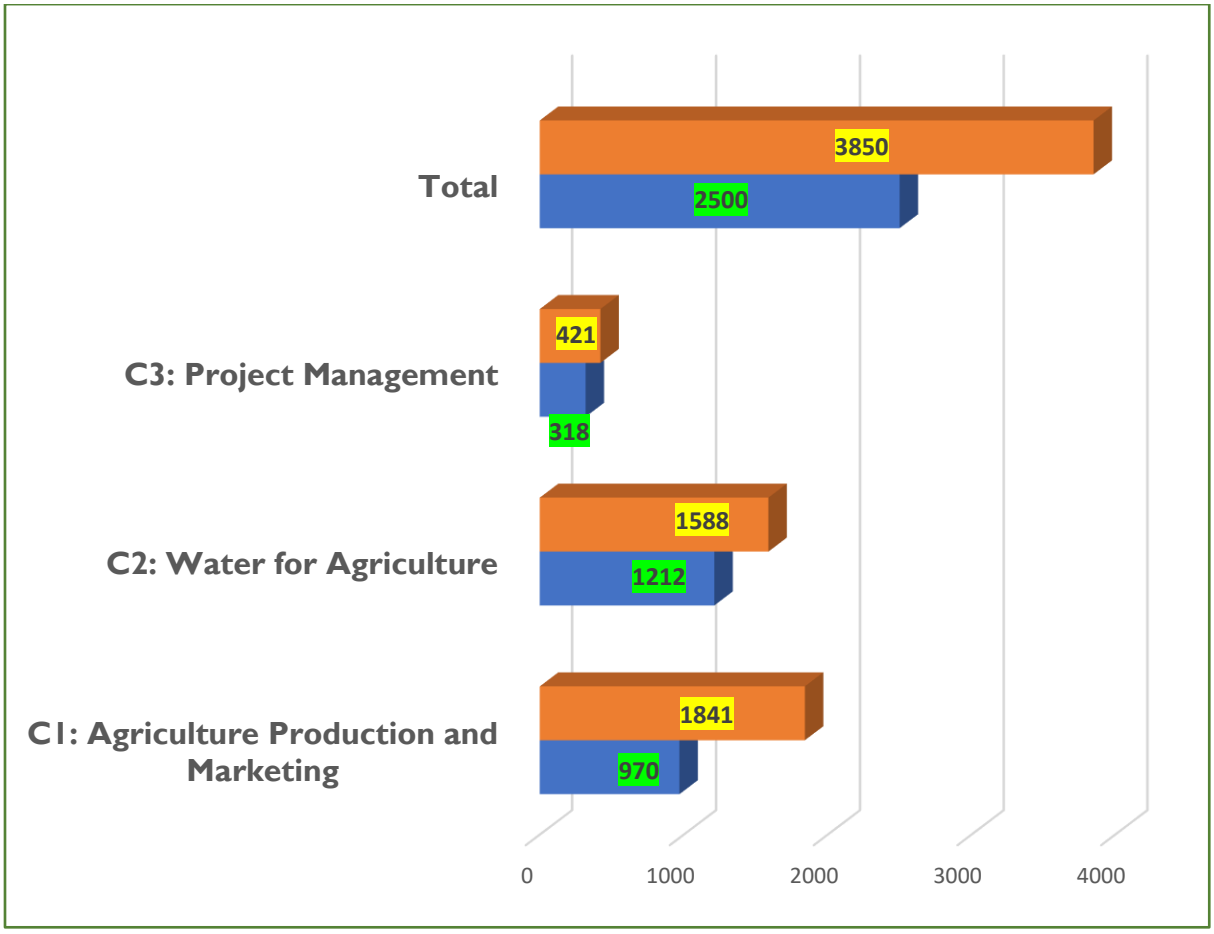
Since the project has a lot of data and such data is not in a centralized system, a GIS based Management information System (MIS)has been developed by a consultancy firm named Celata Tech. (Pvt.) Ltd. and at the end of the year 2022, 95% of the system development has been completed and provincial wise training for the staff has also been started. During the reporting period, training for Southern province project staff has been completed. With the issues and suggestions made at the trainings regarding data entering and reporting, few more days have been allocated to make such amendments to the system and the project planned to start data entering once the trainings for all provincial staff were completed by the MIS consultants. Before starting the new data feeding, present data backlog need to be uploaded.

CHAPTER 3

3.1 Finance and Procurement Progress

3.1(a) Financial Progress

Fund allocation for the year 2022 for the project is Rs.Mn.2500. But the project disbursed the allocated amount at the third quarter of 2022, since the expenditure was Rs.Mn.3850 out of the received allocation of Rs.Mn.2,500, by progressing 154% on disbursement. Annual disbursement progress is given in the figure 2. As a remedial action, on request by the project additional fund of Rs.Mn.1450 was received by increasing the allocation to Rs.3950. According to the revised allocation the financial progress was 98%.



Graph 3: Annual Financial Progress in 2022 of the project

With the re-structuring of the allocated funds by cancellation of $Mn.25, the cumulative financial progress in USD Mn. is given in the following table. The exchange rate taken to calculate the expenditures in USD Mn. was Rs. 247 which was calculated in last Interim Unaudited Financial Report (IUFR).

Table 21: Cumulative financial progress of CSIAP

Components	Total Allocation (USD Mn.)	IDA Allocation (USD Mn.)	Expenditure (USD Mn.)	Progress against Total Allocation (%)
Agriculture Production & Marketing	26	21	9.9	38%
Water for Agriculture	52	44	13.9	27%
Project Management	7	5	4.2	60%
CERC	15	15	15	100%
Total	**100**	**85**	**43**	**43%**

CSIAP has requested an allocation of Rs.Mn.10,320 for the year 2023 for project implementation but the received allocation was Rs.Mn.3,380. Accordingly, the project should make the plans for implementation for the year 2023 for Rs.Mn.3,380. The project is of the view that the amount received is inadequate for smooth functioning of project activities of the year.