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## **Interim Evaluation of the Strengthening the resilience of smallholder farmers in the Dry Zone to climate variability and extreme events through an integrated approach to water management project<sup>1</sup>**

**June 2021**

**UNDP PIMS: 5752 (Atlas Project ID: 00057445; Output ID: 00070975)**

**GCF project ID: FP016**

**Total Project Value     USD 52.08 million (GCF Grant - USD 38,084,000; Co-finance - USD 14,000,000)**

### **Implementing Partner and other project partners**

Implementing Partner and Chair of Project Board - Ministry of Irrigation (to 9 August 2020, the IP was the Ministry of Mahaweli Development and Environment)<sup>2</sup>

Other responsible partners (at time of Funding Proposal<sup>3</sup>:

- \* Department of Agrarian Development
- \* Department of Agriculture
- \* Department of National Community Water Supply
- \* National Water Supply and Drainage Board
- \* Ministry of Disaster Management.

Other stakeholders:

- \* Department of External Resources
- \* Department of National Planning
- \* United Nation Development Programme

### **Interim Evaluation team members**

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**Interim Evaluation time frame – April to June 2021**

**Project country – Sri Lanka**

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<sup>1</sup> Also known as 'Climate Resilient Integrated Water Management Project' (CRIWMP)

<sup>2</sup> see Chapter 3 and Annex 6 for details of changes.

<sup>3</sup> Also changed in 2020

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## Acronyms and Abbreviations

AGD	age, gender and diversity
AMA	Accreditation Master Agreement
APR	Annual Performance Report
ASC	Agrarian Services Centre
AWLR	Automatic Water Level Recorder
BIGG	balanced inclusive green growth path
CBO	community-based organisation
CC	climate change
CCA	climate change adaptation
CCM	climate change mitigation
CI	cropping intensity
CKDue	Chronic Kidney Disease of unknown aetiology
CWSS	community-managed water supply system
CO	UNDP Country Office
COVID-19	global pandemic of coronavirus disease 2019
CRIWMP	Climate Resilient Integrated Water Management Project
CSA	climate smart agriculture
CSO	Civil Society Organization
DMC	Disaster Management Centre
DNCWS	Department of National Community Water Supply
DoA	Department of Agriculture
DoAD	Department of Agrarian Development
DoER	Department of External Resources
DoI	Department of Irrigation
DoNCWS	Department of National Community Water Supply
DoNP	Department of National Planning
DPD	Deputy Project Director
EE	Executing Entity
EW	early warning
FAA	Funded Activity Agreement
FGD	focus group discussions
FP	Funding Proposal
FP	Focal Point
GCF	Green Climate Fund
GDP	gross domestic product
GEF	Global Environment Facility
GN	Grama Niladhari (lowest admin. Level in Sri Lanka - Division)
GoSL	Government of Sri Lanka
GIS	geographical information system
GRC	Grievance Redress Committee
ha	hectare
HEC	human-elephant conflict
hh	household
IC	International Consultant
ID	identification
IE	Interim Evaluation
IFAD	International Fund for Agricultural Development
IMCC	Inter-ministerial Coordinating Committee
IP	Implementing Partner (EE in GCF parlance)
IPID	Institute for Participatory Interaction for Development

KIDs	key informant discussions
LDN	Land Degradation Neutrality
M&E	monitoring and evaluation
MIC	Middle-Income Country
MoA	Ministry of Agriculture
MoD	Ministry of Defence
MoDM	Ministry of Disaster Management
MoE	Ministry of Environment
Mol	Ministry of Irrigation
MoMDE	Ministry of Mahaweli Development and Environment
NC	National Consultant
NDA	National Designated Authority (for GCF in Sri Lanka)
NDCs	National Intended Contributions
NIM	National Implementation Modality
NPF	national policy framework
NWSDB	National Water Supply and Drainage Board
O&M	operations and maintenance
OFC	other field crop
PB	Project Board
PD	Project Director
PM	Project Manager
PMU	Project management Unit
ProDoc	UNDP Project Document
RCP	Representative Concentration Pathways
RMF	Results Management Framework (of the GCF)
RP	Responsible Party
RWH	rainwater harvesting
SCCF	Special Climate Change Fund (of the GEF)
SDGs	Sustainable Development Goals
SMART	Specific, Measurable, Attainable, Relevant, Time-bound
SOC	soil organic carbon
SOPs	standard operating procedures
TAC	Technical Advisory Committee
ToC	theory of change
ToT	training of trainers
UK	United Kingdom
UN	United Nations
UNEG	UN Evaluation Group
UNDAF	UN Development Assistance Framework
UNDP	UN Development Programme
UNFCCC	United Nations Framework Convention on Climate change
UNSDF	UN Sustainable Development Framework
UoC	University of Colombo
USD	United States dollar (\$)
VIS	village irrigation system

**Project Information Table**

Date Approved	30 June 2016
FAA Signature	7 June 2017
FAA effective	28 June 2017 <sup>4</sup>
Date of Inception Workshop	12 September 2017
Estimated Completion	28 June 2024
Project Lifespan	7 years
Total project value	USD 52.1 m
GCF Grant	USD 38.084 m
Co-finance	USD 14 m
Beneficiaries	2.0 m (Direct - 770,500; Indirect - 1,179,874)
Theme	Adaptation

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<sup>4</sup> <https://www.greenclimate.fund/project/fp016>

# 1. Executive Summary

**Sustainable Development Goals (SDGs):** this project was designed to contribute to the following:

- \* GOAL 1: Poverty reduction
- \* GOAL 2: Food security
- \* GOAL 5: Gender equality
- \* GOAL 6: Integrated water management
- \* GOAL 13: Climate change adaptation

**United Nations Development Assistance Framework (UNDAF) Outcome 4:** By 2022, people in Sri Lanka, in particular the vulnerable and marginalized, are more resilient to climate change and natural disasters and benefit from increasingly sustainable management of natural resources, better environmental governance and blue/ green development<sup>5</sup>.

**Country Programme Output 2.1:** Policies and risk management strategies are implemented at national and subnational levels (rural and urban) for enhanced adaptation and resilience to climate change and disaster risk<sup>6</sup>.

**UNDP Strategic Plan / Sustainable Development Goal Output 1.4:** Scaled up action on climate change adaptation and mitigation cross sectors which is funded and implemented.

**UN Sustainable Development Framework (UNSDF)<sup>7</sup>** – since the project was approved in 2016, the United Nations (UN) and the Government of Sri Lanka (GoSL) signed the 2018-2022 UNSDF, which pegs UN assistance to Sri Lanka’s long-term development priorities, on the 3rd of August 2017 (see Section 4 for details).

## Project Description

The project was designed to support the GoSL to strengthen the resilience of small-holder farmers in Sri Lanka’s dry zone, who are facing increased risks of climate change (CC). The project has adopted a distinctive river basin / landscape approach to deliver an integrated package of interventions for irrigation and drinking water in the Malwathu Oya, Mi Oya and Yan Oya watersheds. These cover seven districts in the North, Eastern, North Central and North Western Provinces of Sri Lanka (areas of the Districts of Kurunegala, Puttalam, Anuradhapura, Mannar, Trincomalee, Vavuniya and Polonnaruwa (see Annex 12). Following natural boundaries and traversing administrative boundary constraints, the project addresses provision of water and livelihood concerns in an integrated and multidisciplinary manner, with multi stakeholder interventions and negotiated actions. It underlines the links between ecosystems and human well-being. Maintaining ecosystems such as riverine, riparian, wetland and tank ecosystems will ensure that ecosystem services are safeguarded which will in turn ensure a flow of benefits for the people, demonstrating that provision of water supports people’s livelihoods and sustains ecosystems.

The key objective of this project is to strengthen the resilience of smallholder farmers to climate variability and extreme weather events through an integrated approach to water management. The primary measurable benefits include resilient water and agricultural management for 770,500 direct beneficiaries and 1,179,800 indirect beneficiaries who will gain from improved water management, more resilient agriculture practices, also the provision of climate and weather information. The project is initiating a paradigm shift in how water resources are managed, especially in the dry and intermediate climate zones of Sri Lanka. This shift is catalyzed through an integrated inter-sectoral approach incorporating CC concerns; understanding linkages across river basins/sub-river basins; and covering multiple uses of water including irrigation, agriculture, livelihoods, drinking water and disaster

<sup>5</sup> New Outcome 4 supersedes version in ProDoc “Policies, programs and capacities to ensure environmental sustainability, address climate change, mitigation, adaptation and reduce disaster risks in place at national, sub national and community levels”

<sup>6</sup> This supersedes “Output 4.1: Development agencies are equipped with policies, strategies, methodologies and tools to integrate sustainable development and disaster resilient principles” in ProDoc

<sup>7</sup> <https://lk.one.un.org/our-work/unsdf/>

management. The project's bottom-up approach to integrated water management involves the preparation of integrated cascade water resource development and management plans. These plans cover a host of water management aspects including water storage tank rehabilitation, operations & maintenance of village irrigation systems, drinking water management, groundwater management, climate-smart agriculture (CSA), also both catchment management and disaster preparedness plans. These aspects correspond to the following three synergistic Outputs<sup>8</sup>:

**Output 1:** Upgrading and enhancing resilience of village irrigation systems and scaling up climate-resilient farming practices in three river basins of the Dry Zone;

**Output 2:** Enhancing climate resilient, decentralized water supply and management solutions to provide year-round access to safe drinking water to vulnerable communities;

**Output 3:** Strengthening climate and hydrological observing and forecasting system to enhance water management and adaptive capacity of smallholder farmers to droughts and floods.

The project is expected to contribute to the GCF fund level adaptation results areas<sup>9</sup> of:

- \* Health, food and water security;
- \* Livelihoods of people and communities;
- \* Ecosystems and ecosystem services.

The project is implemented using UNDP's National Implementation Modality (NIM), with significant UNDP involvement in the implementation.

The Ministry of Environment and Mahaweli Development (MoMDE) was the Executing Entity (EE) and five other GoSL organizations, including the Ministry of Disaster Management (MoDM), were identified as the Responsible Parties (RPs) in the FP & ProDoc. Following the Presidential election in November 2019, there was a reshuffling of the ministerial portfolios. These included the split of the Ministry of Environment and Mahaweli Development into two entities, namely the Ministry of Environment (MoE) and the Ministry of Mahaweli, Agriculture, Irrigation, and Rural Development. Following the Parliamentary Elections in August 2020, the Ministry changed again and now the responsibility of the project lies with the Ministry of Irrigation (MoI). Owing to these changes, the MoI now serves as the EE<sup>10</sup>.

Further, the MoDM has been dissolved and agencies under the purview of the MoDM have been moved under the Ministry of Defence (MoD) and later to the State Ministry of National Security, Home Affairs and Disaster Management.

The Department of Irrigation (DoI), which is mainly responsible for the management of major irrigation schemes and flood control structures has now been assigned to manage and maintain village irrigation schemes (VIS) under the present government. This means the project is also working with the Department of Irrigation on VIS upgrading work<sup>11</sup>.

One of the project's RTAs informed GCF about the changes to the EE and RPs through an email on 20 November 2020. This was reconfirmed in the first draft of the Restructuring Proposal (dated 14 Dec 2020) and the 2020 APR.

### **Project Progress Summary**

The project is innovative in Sri Lanka as it is adopting a river-basin / landscape approach and using bottom-up (community focused) approaches to address the increasing impacts of CC being felt by people (especially small-holder farmers) in the Dry Zone (particularly the frequency and intensity of

<sup>8</sup> Version from 2016 Funding Proposal

<sup>9</sup>Source: GCF Programming Manual (2020) <https://www.greenclimate.fund/sites/default/files/document/gcf-programming-manual.pdf>

<sup>10</sup> Accordingly, a HACT Framework Micro Assessments was conducted for the new EE.

<sup>11</sup> All these changes have been communicated to the GCF Secretariat through submission of the note-to-file and restructuring proposal in Dec 2020.

extreme events and changes in rainfall patterns). CRIWMP is fundamentally a multi-sectoral, aiming to break-down sectoral silos to demonstrate the win-win benefits of these approaches and thus provide a model for upscaling across the country in water resource management.

The project is catalysing visible changes on the ground towards achieving improved water management for agriculture and drinking, supported by a new system of scientifically based agro-met. advisories and disaster early warning using project-supported meteorology and hydrology monitoring equipment. All Outputs of the project include large investments in awareness raising and training to all levels, with a particular focus on benefiting women (including women-headed households and widows), also all age groups (school children and youth to elderly) and people living with disabilities.

A change in the baseline between project approval and FAA continues to affect progress towards Output 2 and is the subject of a Restructuring Proposal to GCF (approved by GoSL on 7 May 2021).

Some aspects of project management leave room for improvement, including the frequency of Project Board meetings, also the lack of a Technical Advisory Committee,

The project has been impacted in a range of ways due to COVID-19, some negative but the team (EE and AE) have risen to the challenge and adapted well in very many respects.

**Table 1: Interim Evaluation Ratings and Achievement Summary Table**

<b>Measure</b>	<b>Interim Evaluation Rating</b>	<b>Achievement Description</b>
<b>Project Strategy</b>	N/A	The project is providing a model of the benefits of adopting landscape, bottom-up and inter-sectoral approaches to address climate change in the Dry Zone. The inter-sectoral approach is proving challenging and could be enhanced with more frequent meetings of the Project Board, also establishment of a dedicated CRIWMP Technical Advisory Committee.
<b>Progress Towards Results</b>	Objective - <i>to strengthen the resilience of smallholder farmers, particularly women, in the Dry Zone through improved water management to enhance lives and livelihoods.</i> <b>Achievement Rating: Moderately Satisfactory (4)</b>	Work is progressing well on all three project Outputs [with the exception of Activity 2.2 (Implement sustainable, climate-resilient drinking water solutions through CBOs and government agencies)] towards the project's overall Objective.
	Output 1 - <i>Upgrading and enhancing resilience of village irrigation systems and scaling up climate-resilient farming practices in three river basins of the Dry Zone.</i>	Addressing not only the urgent need to rehabilitate individual tanks in the Dry Zone's historic agricultural water management systems but including activating selected entire cascades within the project's three river basins, including ensuring FOs and village communities have the knowledge for O&M of tanks and VISs for post-project sustainability. The activities, including training in climate smart agriculture technologies are improving the cropping index of the downstream command areas of 223 VISs, facilitated by agro-met. advisories from the Agrarian Service Centres, which already are enabling cultivation of an additional

<p><b>Achievement Rating: Satisfactory (5)</b></p>	<p>season in between the two main cultivation seasons. Climate smart home gardens are also being established to increase the climate resilience, increase the productivity and reduce greenhouses gas emission.</p>
<p>Output 2 - <i>Enhancing climate resilient, decentralized water supply and management solutions to provide year-round access to safe drinking water to vulnerable communities.</i></p> <p><b>Achievement Rating: Moderately Unsatisfactory (3)</b></p>	<p>After initially not being well perceived by the communities and health authorities, installation of household rainwater harvesting systems (rwh) in hilly locations where there is no power available to pump groundwater, also where there are no rivers / lakes to provide improved quality water for drinking and cooking is proving extremely popular among beneficiaries. Linked to the rwh systems, a ground water recharge program began in 2020 in Kurunegala District using the awareness program and a field visit to the ground water recharging model demonstration unit.</p> <p>The ToT programmes on integrating climate risks and adaptive options for drinking water, preparation of climate resilient water safety and security plans, and building awareness on operations and maintenance of rwh systems were completed in 2020.</p> <p>Participatory monitoring committees are being established for the new community-managed water supply schemes (CWSS).</p> <p>Problems over finding suitable new water sources led the GoSL through NWSDB to investigate 102 alternative locations for acceptable water sources within the target districts, of which only 16 were considered to possess acceptable levels of water quantity and quality to serve the communities that are otherwise deprived of safe drinking water. This not only meant larger investments in source investigations, but also associated increase in the pipeline length and size, pumping capacity and additional treatment measures, all adding to the higher unit costs of the intervention.</p>
<p>Outcome 3 - <i>Strengthening climate and hydrological observing and forecasting system to enhance water management and adaptive capacity of smallholder farmers to droughts and floods.</i></p> <p><b>Achievement Rating: Satisfactory (5)</b></p>	<p>Manual rain gauges have been installed in identified project cascades as well as in CWSSs. Water users, mostly farmers are involved in data collection and recording. Data recording books were provided, and farmers were trained on record keeping and use of rainfall data for cultivation decision making such as adjusting irrigation interval as per the rainfall of the cascades.</p> <p>Installation of water level sensors started in 2020 with the hydrology and water management divisions of the Department of Irrigation (DoI) across the Mi Oya and Malwathu Oya basins, which will contribute both flood and water management activities of the Department.</p> <p>Flow measuring gauges are being installed in main canals of the downstream of upgraded cascades and rating curves are then being developed to measure the water discharge using the readings of flow measuring curves, which will help farmers to measure the water release as per the water rotation plan of the tank.</p> <p>The Department of Irrigation extensively uses the real time water levels and rainfall data of the Automatic Water Level Recorders (AWLRs) installed by the project in Yan Oya and Malwathu Oya basins for flood and water management purposes.</p>

		<p>A key extreme event experienced during 2020 (tropical cyclone 'Burevi') provided a test of the project catalysed improved disaster emergency response. The GIS trainings provided in 2019 and automated meteorological network established by the project were useful in generating early warning and monitoring of the cyclone impact.</p> <p>In 2020, the project supported DMC and district stakeholders to implement COVID-19 Responsive Disaster Preparedness and Response activities in 25 flood affected DS divisions.</p>
<b>Project Implementation &amp; Adaptive Management</b>	<b>Moderately Satisfactory (4)</b>	<p>Overall project implementation is judged moderately satisfactory. There have been some shortcomings, including communication between the sub-national and national levels and also communication between sectors at national level, attributed to the infrequent Project Board meetings.</p> <p>The project has adapted well to a series of issues which have affected implementation (<i>inter alia</i> terrorism, cyclones, elections, problem with Output 2 and COVID-19). The EE (PMU) and AE (UNDP) approach to addressing the change in the baseline conditions affecting Output 2 (Activity 2.2) has been appropriate, but the delays in informing the GCF of that issue, also changes in the EE and one RP risk jeopardising trust between the country (including the EE, RPs and UNDP) and the GCF.</p>
<b>Sustainability</b>	<b>Moderately Likely (4)</b>	<p>The fact that the project activities have all by definition been designed to enhance the resilience to CC mean that there should be a high likelihood of sustainability. This is reinforced by the high level of project investment in awareness raising, training and training of trainers integrated into all three Outputs. Furthermore, lessons from the project are already being mainstreamed (into national policies, guidelines etc.) will contribute to the sustainability of the project's innovative approaches.</p> <p>However, there are risks to sustainability:</p> <ul style="list-style-type: none"> <li>* lack of legal governance framework for the tank-cascade systems;</li> <li>* low mobilization of co-financing;</li> <li>* CC may damage project infrastructures;</li> <li>* Increasing HEC (also other wildlife);</li> <li>* loss of cattle feeding grounds, due to project catalysed improved water management and irrigation, resulting in enhanced cultivation (Maha and Yala seasonal cropping).</li> </ul> <p>Which should be addressed before project closure.</p>

## **Concise Summary of Conclusions**

### Project Strategy and Relevance

1. The project is contributing to achievement of SDGs 1,2,5,6 and 13, also other UN and national frameworks and Outputs as listed in the FP, ProDoc and in Chapter 1 of this report.
2. The project is setting standards and precedents for future bottom-up, intersectoral river basin management planning (particularly for the rehabilitation and reactivation of tank-cascade system) in the Dry Zone of Sri Lanka, including the selection of river basins and cascades based on adaptation potential and vulnerability, using the linkages between domestic water needs, livelihood needs, information needs and responding to community requirements in an integrated manner to enhance resilience to the impacts of climate change.
3. Increasing provision of drinking water which meets national standards is extremely welcome in the Dry Zone, where project areas currently use groundwater as a source of potable water.
4. The project is aligned to the sector development priorities and plans of all the involved sectors, also to the NPF Vistas of Prosperity and Splendor (2020 – 2025) and Vision 2030.
5. The project is gender responsive in design and implementation, with women being >50% of beneficiaries, although the gender balance of the Project Board, GoSL and UNDP staff are regrettably very far from being gender balanced.
6. The project's ToC remains valid, with three synergistic Outputs and the barriers / assumptions are confirmed.
7. The project's relevance, with its clear focus on inter-sectoral water management, is even greater in 2021 compared to 2016 when it was approved, as Sri Lanka is experiencing ever more frequent and intense extreme weather events, as well as changes in seasonal rainfall reliability. The impacts of COVID-19 are also increasing its relevance.

### Effectiveness and Efficiency

8. The project's range of stakeholders at provincial / district / division levels the project's four CSOs (service providers), are implementing most of the project Activities effectively and yielding results despite the interruptions in late 2019 and 2020.
9. Three of the seven project Output indicators are not on track to be achieved (2 of Output 2 and 1 of Output 3). The future of Output 2 and the attainment of the indicators is dependent on the acceptability of the Restructuring Proposal by the GCF.
10. The PMU has made use of adaptive management to overcome various external factors which have caused delays in implementation.
11. The project's low mobilization of co-finance is having some impacts on progress, along with the underspend on the GCF grant funding to-date.
12. Considering Output 1, the project should be exerting more effort to scale the interventions to the cascade level, as envisaged in the project proposal.

### Progress

13. Of the seven project Output indicators, four are on track to be achieved and the fifth considered highly likely to be achieved. Progress is being made on rwh systems under Output 2.
14. The project has made significant achievements using a range of innovative approaches, providing a wide range of training opportunities for smallholder farmers, teachers, GoSL officers at national / sub-national levels and CSOs, also training trainers.
15. The project is making commendable use of the full range of communications technologies to disseminate awareness and knowledge about the project in the project areas and to national level in Sinhala, Tamil and English, also some pictorial materials for people of limited literacy levels.
16. Community engagement is commendable across all three project Outputs, making use for example of the project's grievance redress mechanism to address complaints.

### Project Implementation and Adaptive Management

17. Largely, the project is being effectively implemented and is already demonstrating positive results.

18. The project has responded and adapted very appropriately to a series of crises of short and long duration which have affected the project from soon after inception to the present.
19. The infrequency of Project Board meetings is a serious limiting factor on mainstreaming inter-sectoral river basin approaches.
20. A range of sub-national committees contribute effectively to oversight of the project, as do the four CSOs recruited by UNDP as service providers.
21. The project does not benefit from oversight / guidance from either an Inter-ministerial Coordinating Committee (IMCC) nor Technical Advisory Committee (TAC)<sup>12</sup>.
22. The 4th tranche of the GCF grant (due August 2020) was withheld due to the ongoing conversations with the GCF about Output 2, finally leading the PMU to prepare a Restructuring Proposal (decision made collectively by UNDP and the GoSL, based on discussions with GCF). This poses a serious risk of prematurely terminating the project which will jeopardize the achievements of all the other Activities towards the Outputs, Outcome and Objective of the project, foregoing a great deal of adaptation benefits.
23. The project has made serious efforts to find alternative sources of drinking water for all the beneficiaries in the FP and ProDoc and the design of the Restructuring Proposal makes a workable alternative, if not delivering the full anticipated supply of drinking water.
24. Lessons can be learned about the change in the baseline condition by the date of the project start-up and the PMU / UNDP CO (AE) should have communicated the problem earlier to GCF.
25. The changes to the EE and RPs took place on 9 August 2020, but GCF was not notified until 20 November, which the IE consider was very belated.
26. The delay in release of tranche 4 of funds by GCF, hence slowing the progress with activities, has implications for the future of the project's engagement, particularly with beneficiaries ("loosing belief in project"<sup>13</sup>) but also stakeholders at all levels.
27. There has been a low level of mobilization of GoSL co-finance from the start of the project to the IE for reasons outside the EE's control. However, there are indications that this may be rectified in 2021, as the IE have had sight of a letter of assurance of co-finance from the MoI to UNDP letter dated 13 Nov. 2020.
28. There is an on-going issue of financial control between GoSL PMU and UNDP which was reported to the PB and the IE. Transparency and strengthened coordination between IP and CO are needed to resolve this issue.

#### Sustainability

29. The high level of project investment in awareness raising, training and training of trainers integrated into all three Outputs provide a sound foundation for sustainability post project.
30. As the project activities by definition have been designed to enhance the resilience of the systems in the three project river basins.
31. There is a risk to the sustainability of achievements under Output 1 due to the lack of legal governance framework for the tank-cascade systems.
32. The mainstreaming of lessons from the project into national policies, guidelines etc which has already taken place will contribute to the sustainability of the project's innovative approaches.
33. There are financial risks to the sustainability of the project interventions such as the tank, VISs and drinking water systems – however the project's focus on training, including in O&M, reduce this risk.
34. There are several risks to environmental risk, notably from CC – but this whole premise of the project is to develop resilience, so this is being.
35. Another environmental risk to sustainability relates to reported increase in HEC (also other wildlife).

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<sup>12</sup> The project has assembled a Technical Working Committee (TWC) but focusing only on Output 1.

<sup>13</sup> Quote from an informant to the IE

36. A third risk arises as there is a loss of cattle feeding grounds, due to project catalysed improved water management and irrigation, resulting in enhanced cultivation (Maha and Yala seasonal cropping).

#### Country Ownership

37. Extracts from the project's 2020 APR summarize the high level of country ownership.  
38. Country ownership of the results is further demonstrated as the lessons have been included in guidelines and drafting of a new agricultural policy, also in the design of two future larger projects.

#### Gender

39. The project's revised GAP provides a much sounder foundation for the PMU and the CSO project service providers to ensure the inclusion not only of gender, but also age and disability into project implementation, including collecting project monitoring data disaggregated by GAD.  
40. Within the project governance and staff, the poor gender balance is of concern.

#### Innovativeness

41. Two of the project's approaches are innovative for the country, namely;
- \* River basin / landscape (linking tanks into cascades, also rivers);
  - \* Integrated water resources management (agricultural water use, drinking water supplies, agrometeorology);

and provide a model for future inter-sectoral approaches.

42. The project is also using a wide range of innovative technologies.

#### Replicability and Scalability

43. On many levels, the project is setting standards for replication and scaling-up of the project approaches.  
44. The project's communications strategy, using the wide range of media to reach a wide audience and share lessons learned will support the replication of project actions (nationally and internationally).

#### Gender Equity

45. The project was particularly designed to especially benefit women and is successfully targeting activities to benefit women.  
46. The project is also effectively including other vulnerable groups (disadvantaged groups. The disabled, children) and youth, but could widen the scope of activities it supports.

**Table 2: Recommendation Summary Table**

#	Details	Responsible Party (Parties)	Timing
Effectiveness and efficiency			
1	The IE recommend prioritising progress under Output 2 (subject to approval of the Restructuring Proposal) as it is an integral part of the overall project design and meets a vital human need. If not all aspects of the restructuring proposal are approved, project could consider scaling-up rainwater harvesting, which is proving very popular and effective (also linked to groundwater re-charge) or other alternatives – particularly for the communities of Mannar, Vavuniya, and Trincomalee.  (see Conclusions 9 and 22)	AE (UNDP CO, with oversight by EE (PMU) and UNDP Regional Office	By July 2021

#	Details	Responsible Party (Parties)	Timing
2	<p>The low mobilization of co-finance and underspend on the GCF grant is limiting project progress and needs to be addressed.</p> <p>[Dependent on release of tranche 4 of GCF grant]</p> <p>(see Conclusions 11 and 27)</p>	<p>EE (PMU) and AE (UNDP CO) – co-finance</p> <p>GCF grant spending - PMU</p>	<p>Immediate action required</p> <p>Immediate action, sustained to end of project</p>
3	<p>Project achievements in rehabilitation of the tank-cascades should be supported by policy dialogues, policy changes, institutional changes at the cascade level enabling multiple users of the cascades to come to a common form, and if necessary, the legal backup</p> <p>(see Conclusions 12 and 31)</p>	EE, MoA, FOs, CSOs	<p>Dialogues start by July 2021</p> <p>Policy revisions being drafted by April 2022</p>
Progress			
4	<p>The EE, RPs, PMU and sub-national stakeholders should recognise the very positive progress the project is making and ensure that the project's momentum continues for the remaining period of the project, to enhance the likelihood of post project sustainability, This should include more awareness raising on the benefits of inter-sectoral river basin approach, the innovative technologies being used also mainstreaming project lessons, such as the innovative interventions via the agricultural policy, irrigation and CSA guidelines. After the IE, workshops among beneficiaries at district level could be held to share lessons learned</p> <p>(see Conclusion 14)</p>	<p>Awareness raising (documenting lessons learned, using project communication systems to disseminate info, exchange visits from other communities) – EE (PMU), RPs</p> <p>Workshops – CSOs, sub-national GoSL departments and PMU</p>	<p>On-going from present to June 2024</p> <p>Q3 2021</p>
Project Implementation and Adaptive Management			
5	<p>The Project Board have an especially important role in project implementation and for mainstreaming. PB should aim to meet in person at least twice/ year (COVID-19 permitting), with more use of ICT to communicate more regularly.</p>	Project Board and EE (PMU)	Biannually to June 2024

#	Details	Responsible Party (Parties)	Timing
	<p>It would be beneficial if some PB meetings were held in the project river basin areas for site visits to see interventions and meet with beneficiaries. This will reinforce ownership, transparency and understanding of the win-win benefits of intersectoral approaches. This will contribute to maximizing the impacts during implementation and the likelihood of sustainability / scaling up post-project.</p> <p>Some meetings could be held virtually if COVID-19 conditions do not allow frequent in-person meetings. Field visits could also involve local MPs.</p> <p>The project should also establish the IMCC and TAC, catalysing regular meetings, as recommended in the FP</p> <p>(see Conclusion 19)</p>		By Sept 2021
6	<p>There should be a budget revision to focus as many of the funds as possible to support drinking water solutions – as the project is on track to attain most of the Output indicators but has underspent on the GCF funds and not mobilised all the promised co-financing.</p> <p>(see Conclusion 24)</p>	AE (UNDP CO) and EE (PMU)	By end 2021
7	<p>Financial issues between the EE (PMU) and AE (UNDP CO) should be addressed and resolved</p> <p>(see Conclusion 28)</p>	EE (PMU) and AE (UNDP CO)	By July 2021
Sustainability			
8	<p>The project should work with others to mitigate the increasing instances of conflict between humans and elephants (HEC), also other wild animal attacks (monkeys, giant squirrels, wild boar, insects), as CC affects availability of water in the forests and improved (perennial) crop growing offer an alternative forage. [For example, rehabilitation of upstream forest tanks to provide water for wildlife outside the VISs.]</p> <p>The project requires to develop a sustainable solution to the risk raised by local cattle having lost their feeding grounds due to increased cultivation.</p> <p>(see Conclusions 35 and 36)</p>	PMU, EE, RPs, GoSL and independent wildlife organisations	By Dec 2021

#	Details	Responsible Party (Parties)	Timing
9	Given the Objective, Outcome and Outputs of the project, in addition to the CI indicator, the project should use participatory methods to monitor their crop yields and food (in)security on a regular basis, also if possible hh incomes, as this reinforces the benefits of the project and enhances involvement, which will contribute to post-project sustainability.	AE (UNDP CO), CSOs and EE (PMU)	On-going to June 2024
<b>Gender (GAD)</b>			
10	All stakeholders should address the lack of gender balance in the Project Board, also the GoSL and UNDP project staff by positive discrimination  (see Conclusions 5 and 40)	All stakeholders	By Dec 2022
11	Extra attention is needed to increase youth participation, especially CSA farm practices, value-addition cottage industries and linking to markets to attract both male and female youths.	Sub-national level stakeholders and PMU	On-going to June 2024
<b>Innovativeness</b>			
12	Project team and stakeholders should continue advocating and publicising the benefits of the project's innovative approaches and technologies to scale-up adoption and enhance the availability and the range of technologies (e.g., conduct programs for increasing the ICT literacy of farmers; promoting renewable and sustainable energy (solar) as a CSA practice; develop mobile phone apps to disseminate agro-met and disaster early warnings)  (see Conclusions 41 and 42)	PB, EE (PMU), UNDP CO and sub-national level stakeholders	On-going to June 2024
<b>Replicability and Scalability</b>			
13	Project visibility boards are seen rarely at the project sites in all the districts. Some of the direct beneficiaries, indirect beneficiaries, and outsiders of the project are extremely concerned about the transparency of the project activities, especially concerning the name of the project, financial allocation, implementing agency, contractor, and project duration etc. The visibility boards will increase	EE, field officers and CSOs	By August 2021

#	Details	Responsible Party (Parties)	Timing
	the transparency of the project activities while ensuring the right to information of the public.		
14	Develop sufficient value chains because the harvests of the seasonal and perennial crops will come by May 2021, including reactivating forward sales agreements between the producer groups.	EE	Starting immediately to end of project
15	Develop a central seed bank with district branches to ensure availability of drought resistant seeds for smallholder farmers and home gardens.	EE	May 2021- June 2024

## 2. Introduction

### Purpose of the Interim Evaluation and Objectives

The purpose of the Interim Evaluation (IE) is to assess progress towards the achievement of the project objectives and outputs as specified in the Funded Activity Agreement (FAA), Funding Proposal (FP) and Project Document (ProDoc) and assess early signs of project success or failure with the goal of identifying the necessary changes to be made to set the project on-track to achieve its intended results. This is considered important for a range of reasons, as set out in the new GCF Evaluation Policy<sup>14</sup>, including *".....accountability, learning and knowledge sharing, and evaluation-related capacity development, leadership and dialogue."*

The Interim Evaluation also assesses the following:

- Implementation and adaptive management;
- Risks to sustainability;
- Relevance, effectiveness and efficiency of the project;
- Coherence in climate finance delivery with other multilateral entities;
- Gender equity;
- Country ownership of the project;
- Innovativeness in results areas (extent to which interventions may lead to paradigm shift towards low-emission and climate resilient development pathways);
- Replication and scalability – the extent to which the activities can be scaled up in other locations within the country or replicated in other countries<sup>15</sup>;
- Unexpected results, both positive and negative.

### Scope and Methodology:

The IE of CRIWMP was carried out by a team of two consultants [one international (IC) and one national (NC)], providing evidence-based information that is credible, reliable and useful, covering the period from project start-up to the start of the IE (end of March 2021).

The team reviewed all available sources of relevant information including documents prepared during the preparation phase [*inter alia* the Funding proposal (FP) submitted to the GCF, the UNDP ProDoc, Gender Assessment (GA) and Gender Action Plan (GAP)], reports of the project since implementation started [*inter alia* Inception Workshop Report and Annual Performance Reports (APRs), v2 GAP]; any other materials produced by the project [including communications with GCF]. The team also referred to national strategy documents, also other materials that they considered useful.

The consultants followed a collaborative and participatory approach, ensuring close engagement with the Project Team, Executing Entity (EE), National Designated Authority (NDA) focal point, relevant government counterparts (the Responsible Parties - RPs), the UNDP Country Office, Regional Technical Advisers, other principal stakeholders, Civil Society Organizations (CSOs) engaged in the project (as service providers) and beneficiaries, to ensure their perspectives are captured in this final IE report.

Engagement of stakeholders was considered vital to a successful, balanced IE. Stakeholder involvement included:

- \* 35 interviews (using the Evaluation Questions (EQs) agreed during IE Inception via Zoom (see Annex 7);
- \* 30 focus group discussions (FGDs)<sup>16</sup> with groups representing farmer organizations, water community-based organizations, CSO members, women producer groups, government staff, other stakeholders and beneficiaries. A total of 357 people participated (181 men, 147 women, 17 female youths and 12 male youths) (see Annex 13);

<sup>14</sup> Evaluation Policy for the GCF (2021). Available from: <https://ieu.greenclimate.fund/sites/default/files/page/gcf-b28-05-rev01-evaluation-policy-gcf.pdf>

<sup>15</sup> See GC=CF (2013) Business Model Framework: Results Management Framework. Available from: <https://www.greenclimate.fund/sites/default/files/document/gcf-b05-03.pdf>

<sup>16</sup> The FGDs and KIDs were guided by a checklist prepared by the IC.

- \* 33 key informant discussions (KIDs) were conducted for groups of higher GoSL officials, also age and gender balanced groups of beneficiaries of the project.

Additionally, the IE NC conducted a field mission to observe 58 project intervention sites covering all seven project districts, with the IC providing support and guidance remotely (from UK) (details also in Annex 7).

The adoption of a mixed methodological approach where primary information collected through the field mission was triangulated (cross-checked / verified) against information from project reports and secondary sources (including interviews) for the IE was to enhance the reliability and validity of findings. This triangulation underpins validation and analysis, supporting the conclusions and recommendations.

Implications and potential limitations of COVID-19 on the IE; Considering the core UN concept '*do no harm*' and international travel restrictions at the time of the IE, the International Consultant (IC) did not join the Interim Evaluation (IE) in person, but worked remotely via Skype, Zoom and Teams to join IE meetings, while also supervising the work of the National Consultant (NC). Although travel within Sri Lanka was not limited due to COVID-19 in April 2021, the pandemic may mean particularly beneficiaries in rural areas are less willing to meet with visitors from outside their local area (i.e. the NC), thus limiting the range of information on which the IE is based.

The limitations of this approach include:

- \* Limitation due to COVID-19, which prevented the IC participating in the field mission and conducting interviews in person;
- \* Limited time period available for the entire IE (was to begin December 2020, delayed to begin end March 2021 due to cash flow issues (partial disbursement of tranche 4 of GCF grant in 2020).

The IE team have assessed the following categories of project progress<sup>17</sup>, namely:

- \* Project Strategy;
- \* Relevance, Effectiveness and Efficiency;
- \* Progress Towards Results;
- \* Project Implementation and Adaptive Management; Sustainability.

#### **Structure of the Interim Evaluation report**

This report follows the structure as laid out in the IE Terms of Reference (ToR), namely:

- \* Chapter 3 provides details of the project and the background context;
- \* Chapter 4 presents the IE 's findings;
- \* Chapter 5 presents the conclusions and recommendations;
- \* Ancillary materials relevant to the IE are presented in the Annexes.

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<sup>17</sup> See Annex 1 for more details

### 3. Project Description and Background Context

#### **Development Context: environmental, socio-economic, institutional and policy factors relevant to the project objective and scope**

Sri Lanka is a small island nation lying between 6°N and 10°N latitude and 80°E and 82°E longitude in the Indian Ocean, with a land area of approximately 65,000 square kilometres (km<sup>2</sup>). The island consists of a mountainous area in the south-central region and a surrounding coastal plain.

#### Environment

Sri Lanka's central and southern parts are home to montane forests, sub-montane forests and to lowland rainforests. In contrast, sparse forests, mangroves, riverine dry forests and monsoon forests are located in the Dry Zone. Almost all of the nation's land area was at one time covered with forests, which sustained its people over millenniums. Nearly 70% of the land extent of Sri Lanka was covered with biodiversity rich forest at the beginning of the 20th Century and gradually reduced to 29% as at present to accommodate human use [main causes: encroachment (for agriculture and settlements); private agriculture ventures (expansion of small holder plantation crops and vegetable); infrastructure development; illicit felling, driven by high population growth and the increasing industrialization] leading also to soil erosion, siltation, loss of natural wetlands, loss of biodiversity etc. In addition, the productivity of 34% of the land area of the island is either declining or under stress.<sup>18</sup> The encroachments appear to take place especially in the dry zone, whereas the private agriculture ventures are being done in the wet zone of the country.

In response, the country has set the following Land Degradation Neutrality (LDN) Targets:

- \* Halt the conversion of forests and wetlands to other land cover classes.
- \* Restore and improve degraded forest (80% in the dry zone and 20% in the wet zone).
- \* Increase forest cover from 29% to 32%.
- \* Reduce rate of soil degradation to improve land productivity and Soil Organic Carbon (SOC) stocks.
- \* Reduce soil erosion of lands cultivated with annual and plantation crops.

#### Climate<sup>19</sup>

Sri Lanka shows a very typical tropical monsoonal climate, meaning it is hot and humid all year round with distinct wet and dry seasons. Rainfall of Sri Lanka is of multiple origins. Monsoonal, convective, and synoptic scale "weather systems" formed in the Bay of Bengal account for a major share of the annual rainfall. It varies from 900 mm (south-eastern lowlands) to over 5,500 mm (southwestern slopes of the Central Highlands). Sri Lanka is also at risk of cyclones and intense tropical storms, which have been known to lash the island during the months of October to December. On the basis of average annual rainfall along with some other biophysical parameters, Sri Lanka has been generalized into three major climatic zones in terms of "Wet Zone" in the southwestern region including Central Highlands country, "Dry Zone" covering predominantly, northern and eastern part of the country, and being separated by an "Intermediate zone," skirting the Central Highlands except in the south and the west (see map in Annex 12). The spatial differences in temperature in Sri Lanka are due to altitude; there is no temperature variation due to latitude. The mean monthly temperatures differ slightly depending on the seasonal movement of the sun, with some modifying influence caused by rainfall. In the lowlands, the mean annual temperature is 27 °C and the mean daily range is 6 °C. In the Central Highlands with altitudes up to 2,400 m a cooler climate is experienced.

<sup>18</sup> Land Degradation Neutrality Targets for Sri Lanka (MMDE, 2017)

[https://knowledge.unccd.int/sites/default/files/ldn\\_targets/Sri%20Lanka%20LDN%20Country%20Commitments.pdf](https://knowledge.unccd.int/sites/default/files/ldn_targets/Sri%20Lanka%20LDN%20Country%20Commitments.pdf)

<sup>19</sup> Source: Punyawardena, B.V.R. (2020) The Soils of Sri Lanka. Available from:

[https://link.springer.com/chapter/10.1007/978-3-030-44144-9\\_2](https://link.springer.com/chapter/10.1007/978-3-030-44144-9_2)

There are two cultivation seasons namely; Maha and Yala which are synonymous with two monsoons. Maha Season falls during the north-east monsoon from October to March in the following year. The Yala season is effective during the period from May to end of August.

#### Economic / Socio-economic

Sri Lanka graduated to lower Middle-Income Country (MIC) status in 2010 and the country's human development indicators (2015) reflect high human development with a value of 0.757, positioning Sri Lanka at 73 out of 188 countries.<sup>20</sup>

The economy is dominated by the service sector (61.7% of Gross Domestic Product [GDP] as of 2017), with major contributions from trade, transportation, and real estate activities. While the agricultural sector has shrunk in its contribution to GDP (7.8% as of 2017), it remains a significant employer (27% of the labour force as of 2016).

While categorized as a MIC, this masks a complicated situation with deep regional disparities in wealth and wellbeing. Furthermore, as summarised in the pre-pandemic Vision 2030 document<sup>21</sup>, *"The Sri Lankan economy demonstrates a high degree of macroeconomic volatility and instability caused by structural imbalances, evident from recurring fiscal and external current account deficits"*.

Almost 80% of poor Sri Lankans live in the rural areas and depend on agriculture for food and income. This persistence of rural poverty, indebtedness and vulnerability, high youth unemployment at 19%, low participation of women in the labour force and large-scale migration in search of employment, particularly in the dry zone where the project is working, all indicate a high level of unevenness in growth and opportunity across the provinces and districts. Poverty and social exclusion are most prevalent in under-developed rural districts where agriculture is the major livelihood.

Sri Lanka's recent economic gains, following the end of a debilitating civil war (1983 – 2009) and the aftermath of the 2004 Indian Ocean Tsunami, are being threatened due to its increasing vulnerability to climate change (see following section for details). The conflict-affected districts in the Northern and Eastern Provinces and peripheral districts are most deprived, as many years of exclusion from the benefits of a steady economic growth and development have resulted in greater social vulnerabilities.

#### Climate Change

IPCC's fifth assessment report predicts that South Asia, including Sri Lanka, is vulnerable to drought, flood, food shortages and heat-related mortality.

Temperature rise in Sri Lanka is projected to be marginally lower than the global average<sup>22</sup>. Under the highest emissions pathway [Representative Concentration Pathways (RCP) 8.5] temperatures are projected to rise by 2.9°C–3.5°C by the 2090s, over the 1986–2005 baseline. In contrast, warming of 0.8°C–1.2°C is projected over the same time horizon on the lowest emissions pathway (RCP2.6). Rises in minimum temperatures are projected to be faster than rises in average temperatures. Sri Lanka faces significant threat from extreme heat, with the number of days surpassing 35°C, potentially rising from a baseline of 20 days to more than 100 days by the 2090s, under emissions pathway RCP8.5. Temperature rise is likely to put downward pressure on agricultural yields, including key staples such as rice. This may impact negatively on national and household food security.

Although overall rainfall totals are not predicted to change with CC, Sri Lanka is also affected by an increasing number and intensity of climatic hazards and extreme events and these are projected to worsen with CC. Sri Lanka's Vision 2030 declares *"Sri Lanka's weather and climate has changed and devastating disasters such as heavy rainfall, floods, landslides, droughts and lightning have increased. The drought in 2016 is reported as the worst event in forty years. Subsequently, following the droughts was the*

<sup>20</sup> [https://lk.one.un.org/wp-content/uploads/2017/08/Final\\_UNSDF\\_2018-2022.pdf](https://lk.one.un.org/wp-content/uploads/2017/08/Final_UNSDF_2018-2022.pdf)

<sup>21</sup> <http://www.presidentsoffice.gov.lk/wp-content/uploads/2019/05/Final-v2.4-Typeset-MM-v12F-Cov3.pdf>

<sup>22</sup> Climate Risk Country Profile Sri Lanka (2020) Available from:

<https://www.adb.org/sites/default/files/publication/653586/climate-risk-country-profile-sri-lanka.pdf>

*heavy rainfall resulting in floods and landslides.*" These shifts in seasonal rainfall patterns accompanied by increased floods and droughts are directly impacting rural food security and incomes.

The impacts of climate related rainfall variability and extreme events directly affect incomes and food security of farmers in the Dry Zone (where the project river basins Malwatu Oya, Mi Oya, and Yan Oya are located - see Annex 12). Climate related vulnerability puts additional pressure on Dry Zone agricultural households whose lives are already circumscribed by poverty, low incomes, and recovering from three decades of conflict. A recent study by ESCAP identifies Sri Lanka as one of the hotspots of food insecurity in the Asia-Pacific region. Recurrent hydrological disasters (flood and drought) have eroded the coping capacity of Dry Zone communities making them even less able to plan for and overcome climate-related variability in water availability. Climate change impacts in the Dry Zone also affect people's access to safe drinking water. Droughts reduce the sufficiency of water supply and falling water volumes increase the concentration of pollutants. Floods also affect the quality of drinking water sources, by directly polluting the sources as well as by destroying village irrigation reservoirs ("tanks") that provide a source for drinking water. Deterioration of the village irrigation systems (VISs), increased runoff during frequent flooding, and longer dry periods compromise the recharging of the water in the aquifer leading to limited access to safe ground water for drinking. This means people (usually women) have to travel longer distances to secure water and farmers and their families reduce their water intake or resort to using unsafe sources (such as contaminated ground water wells or streams) during the dry periods.

Climate change impacts women and men differently. In rural communities in Sri Lanka, women's role in the household care economy makes them more vulnerable to climate change and disasters due to impacts on household water availability, health of family members, and safety of domestic assets such as livestock. Women traditionally manage household water, family gardens, and livestock and are in the frontline of managing impacts of reduced water availability and disaster impacts. This affects their own intra-household food security, which can be exacerbated during extreme climate events and in the aftermath of a disaster. Women take full responsibility for the care of children, the disabled and the elderly. In the Dry Zone districts the impact of the war and disease has left a number of women widowed and pushed others into precarious work, in Sri Lanka and overseas, as domestic migrant labour.

Vision 2030 notes that *"the effects of climate change and extreme weather patterns in the country are also having an impact on the Youth in addition to their overall effect on the economy and the well-being of Sri Lankans. Youth employed in the agriculture, plantation, and tourism sectors will be affected by fewer job opportunities and stagnant or decreasing earnings in such a situation"*.

#### Institutional

This is an intersectoral project which involves not only the Executing Entity (EE) [Implementing Partner (IP) in UNDP parlance] but also a range of other Responsible Partners (RPs) (see Annex 6 for details).

#### Policy

GoSL has committed to the Sustainable Development Goals (SDGs), including the goals of ending poverty, achieving food security and promoting sustainable agriculture, promoting inclusive growth, reducing inequality and promoting inclusive societies.

The project was designed to align to the range national policies that provide the policy framework for rural economic development and water management and will contribute towards their implementation, thus towards to the SDGs. The GoSL recognizes that although agriculture plays a less important role in the national economy than in the past, it still employs more than 30% of the population and over 50% of the population in rural areas. There remains a deep GoSL commitment to rural economy and agricultural productivity, including support to rehabilitation of irrigation and disaster risk reduction through sectoral agencies. The project aligns with the National Agriculture Policy of Sri Lanka in promoting food and nutrition security and technically feasible, socially acceptable, economically viable and environment friendly agricultural production technologies, marketing and related strategies. It also contributes to the implementation of National Watershed Management Policy of 2004, which

recommends promoting and strengthening communities or stakeholders to manage their respective watersheds. The project fully supports the current government's National Food Security drive, led by the Presidential Secretariat. Under this project, agricultural water availability, efficiency and crop diversification and productivity are prioritised.

The GoSL recognizes that no meaningful reduction in poverty can be achieved in the country without addressing the deleterious impacts of disasters and climate change. In responding to the challenges, the Government is focused on implementing a number of strategies as outlined in its National Climate Change Policy, National Climate Change Adaptation Strategy and Action Plan, and the Sri Lanka Comprehensive Disaster Management Programme. These strategies focus on adaptive measures to avoid/minimize adverse impacts of CC on the people, their livelihoods and ecosystems and develop the country's capacity to address the impacts of climate change effectively and efficiently – all key elements of the project. GoSL has in its Nationally Determined Contribution (NDC) to UNFCCC committed to minimizing climate change impacts on food security. The NDC and National Adaptation Plans focus on the water sector as a crucial crosscutting sector to be addressed; and, as such, water management for farming in the Dry Zone, outside of the major irrigation works, is a key priority of government intervention.

The project can also be recognised as contributing to the 2019 GoSL's Sustainable Sri Lanka 2030 Vision and Strategic Path<sup>23</sup> which identifies the balanced inclusive green growth (BIGG) path that will facilitate the national transition from "Conventional Sri Lanka 2018" to "Sustainable Sri Lanka 2030". The main focus of the Vision is on providing a decent quality of life for all, especially the poor and disadvantaged, and meeting minimum standards in the provision of basic services. One of the goals of the 2030 Vision is *"to provide access to 'quality drinking water' for every citizen despite climate change, drought or rain; to ensure water for agriculture, including paddy, other food crops ...."* – which the 3 Outputs of CRIWMP are contributing to.

The project is aligned to the new National Policy Framework (NPF) "Vistas of Prosperity and Splendour (2020-2025)"<sup>24</sup>. The NPF of the GoSL constitutes of 10 key policies aimed at achieving the fourfold outcome of a productive citizenry, a contented family, a disciplined and just society and a prosperous nation. The policy pertinent to the CRIWMP is "Sustainable Environmental Management" towards *"Achieving sustainable development through balanced social, economic and environmental practices"* with the strategy Revitalization of National Physical Plan and the activity "Sustainable land-use in agriculture, animal husbandry and plantation" to achieve this.

The GoSL is currently drafting a new agricultural policy.

### **Problems that the project sought to address, threats and barriers targeted**

#### Problems

The project is addressing the following problems:

- \* The impacts of climate related rainfall variability and extreme events are directly affecting the incomes and food security of Dry Zone farmers and compounds existing vulnerabilities owing to poverty, low incomes and recovering from three decades of conflict;
- \* Recurrent hydrological disasters have eroded the coping capacity of Dry Zone communities making them even less able to plan for and overcome climate-related variabilities in water availability;
- \* CC induced droughts are impacting access to reliable drinking water as they reduce the sufficiency of water supply and falling water volumes increase the concentration of pollutants;
- \* Floods are affecting the water quality of drinking water sources, by directly polluting the sources as well as by destroying village irrigation reservoirs that provide a source for drinking water;
- \* Irrigation infrastructure has deteriorated due to floods, inadequate maintenance especially during the war period, and inadequate incomes, further limit the coping capacity of the Dry Zone communities;

<sup>23</sup> <http://www.presidentsoffice.gov.lk/wp-content/uploads/2019/05/Final-v2.4-Typeset-MM-v12F-Cov3.pdf>

<sup>24</sup> <http://oldportal.treasury.gov.lk/national-policy-framework-vistas-of-prosperity-and-splendour-2020-2025>

- \* Farmers in the Dry Zone are also increasingly exposed to water related chronic illnesses such as chronic kidney disease of unknown aetiology (CKDue). Leading to high rates of morbidity and mortality among young male farmers in the North-central and Northern provinces;
- \* Women and youth in the Dry Zone communities are particularly more vulnerable to the impacts of CC as women's role in the household care economy makes them more vulnerable to climate change and disasters due to impacts on household water availability, health of family members and safety of domestic assets such as livestock. Women traditionally manage household water, family gardens and livestock and are in the frontline of managing impacts of reduced water availability and disaster impacts.

#### Threats<sup>25</sup>

- \* Limited capacity among farmer organizations, Government officials and other partner organizations to design and implement integrated solutions;
- \* Inadequate operations and maintenance (O&M) of the local level community managed interventions can lead to reduced viability and impact of the water and early warning / forecasting solutions;
- \* Limited co-ordination among agencies and stakeholders can lead to inefficiencies in the implementation and impact of the project interventions;
- \* Delays in completion of the infrastructure due to issues such as rainfall season and lack of availability of construction materials;
- \* Climate shocks can lead to a risk of damage to the project investments, affecting implementation as well as sustained impact post project;
- \* Lack of financing for O&M of irrigation systems for sustained impact of investments;
- \* Sediment movement during the rehabilitation of irrigation infrastructure;
- \* Production of waste;
- \* Risk of conflict and grievances among beneficiaries around selection and water use.

#### Barriers targeted by the project

There are a number of barriers that need to be overcome for the project to achieve its stated goals, namely:

- \* Limited financial capacity of communities and government agencies to sustainably meet the incremental costs of adaptation;
- \* Weak inter-sectoral coordination (sectoral silos) to implement a climate-risk informed, bottom-up river basin approach in village irrigation cascade systems (nature-based), also including provision of quality drinking water;
- \* Limited technical capacity on climate resilient practices, including for infrastructure development, in irrigation, agriculture and drinking water supply;
- \* Limited knowledge and awareness of climate-change risks, impacts and adaptation solutions related to water management;
- \* Limited community capacities to design integrated solutions, sustainably manage rural infrastructure and resolve user conflicts over the different sector of water management.

#### **Project Description and Strategy**

The project supports the GoSL to strengthen the resilience of vulnerable smallholder farmers in the Dry Zone, particularly focusing on women, who are facing increasing risks of rising temperatures, erratic rainfall and extreme events due to climate change (CC). It addresses technical, financial and institutional barriers related to aspects in achieving integrated water management to improve agriculture-based livelihoods of smallholder farmers. It is the only integrated water management project in Sri Lanka.

The GCF funds, together with GoSL co-financing, are being invested in improving the community irrigation water infrastructure and associated agricultural practices, scaling-up decentralized drinking water systems, strengthening early warnings (EWs), forecasting for flood-response and water

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<sup>25</sup> From project's risk log 2016. Note, numbering not sequential,

management. The project's paradigm shift in addressing adaptation needs among farmers in the Dry Zone lies in developing an integrated, holistic approach to water security that considers the entire 'cascade' or sub-basin systems and the inter-connectedness of the village irrigation systems (VISs), agricultural practices, water supply and management techniques for multiple uses, including drinking water. VISs provide communities with a means of coping with seasonal variability and improving their functionality is seen as a means of adaptation to CC. Increased resilience to floods and droughts requires cost-effective design changes and enhancements to the system<sup>26</sup> to reduce flood damage and improve dry-season storage. Efficient, planned, climate-risk informed water management at field and sub-basin level (Output 3) are to complement improved availability and access to water. This includes resilient and ecologically sustainable agricultural practices, which substantially deviate from current field practices. Introduction of improved, short duration rice and other crops, simple micro irrigation techniques, semi-mechanisation for water efficiency etc. can ensure longer water storage and availability for multiple uses. Many villages secure their drinking water from wells that are immediately downstream of the village reservoir. Increased water capture and storage will improve both year-round access to drinking water and agricultural practices, including the reduction of agro-chemical use, which in the long-term will improve the quality of drinking water. Harvesting rainwater at household-level can also improve access to quality drinking water as rainwater is considerably safer and of better quality than ground water in the Dry Zone. In addition, early warning information, based on meteorological and seasonal forecasts, is a key part of the water management system. It enables preparation and mitigating measures to be enacted ahead of climate-related disasters and variability ensuring the optimal management of water resources.

Objective:

**To strengthen the resilience of smallholder farmers, particularly women, in the Dry Zone through improved water management to enhance lives and livelihoods.**

Outputs:

The project comprises three synergistic Outputs that build on best practices in the baseline and relevant projects to overcome the barriers discussed earlier, namely:

**Output 1: Upgrading and enhancing resilience of village irrigation systems and scaling up climate-resilient farming practices in three river basins of the Dry Zone.**

**Output 2: Enhancing climate resilient, decentralized water supply and management solutions to provide year-round access to safe drinking water to vulnerable communities.**

**Output 3: Strengthening climate and hydrological observing and forecasting system to enhance water management and adaptive capacity of smallholder farmers to droughts and floods.**

Expected Results:

The primary measurable benefits include resilient water and agricultural management for 770,500 direct beneficiaries and 1,179,800 indirect beneficiaries who will gain from improved water management (for agriculture and drinking), adoption of CSA agriculture practices, also provision of climate and weather information (regular agro-met advisories) and disaster early warning.

The project also aims to increase the extent of minor irrigation under targeted cascades with increased cropping intensity<sup>27</sup> ( $CI >^{28} 1.6$ ) on a total of 9,750 ha.

The project has been designed to act as a model to change how water resources are planned and managed across the country.

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<sup>26</sup> Historical evidence shows that tank cascades were built over 5000 years ago to address water scarcity. The project uses this knowledge from traditional technology for rainwater-based solutions in building resilience to climate change of vulnerable farmer communities.

<sup>27</sup> Measured by the number of times the irrigated downstream is fully cultivated – baseline = 1.0

<sup>28</sup> Symbol used incorrectly in FP and ProDoc – corrected here to greater than

See Annex 14 for the full Results framework from the UNDP ProDoc.

### Description of field sites

The project is innovative as it is adopting a landscape / river basin/sub-basin approach, in the Malwathu Oya, Mi Oya, and Yan Oya watersheds situated almost entirely in the Dry Zone (see Table 3 and maps in Annex 12), to deliver integrated interventions for agricultural water use and provision of drinking water. The selection of river basins was based on vulnerability to climate change, presence of a large number of village irrigation systems (VIS), large populace of vulnerable farmers, significant lack of drinking water and high incidence of Chronic Kidney Disease of unknown aetiology (CKDue). Rather than focusing on rehabilitation of individual tanks, again project takes a landscape approach, addressing issues across entire cascades. The selection of cascades was based on adaptation potential and vulnerability using the linkages among domestic water needs, livelihood needs, information needs and responding to community requirements in an integrated manner (see detailed diagram in Annex 15).

**Table 3: Areas of the project river basins<sup>29</sup>**

River basin	Area (km <sup>2</sup> )
Yan Oya	1,535
Malwathu Oya	3,237
Mi Oya	1,566
<b>Total</b>	<b>6,338</b>

In following a river basin approach, administrative boundaries are being traversed, necessitating discussions and agreements between the main stakeholders across administrative boundaries.

Within the selected cascades, CRIWMP is bottom-up, particularly targeting households that meet one or more of the following vulnerability criteria:

- \* Women headed households;
- \* Young unemployed women in target villages;
- \* Households with disability or kidney disease;
- \* Conflict displaced/resettled;
- \* Flood affected in the last five years;
- \* Families with children/women displaying low nutrition (underweight/ anaemic);
- \* Households with at-risk subgroups such as children and girls (children charged with household duties, neglected children not attending school, girls at risk).

### **Project Implementation Arrangements: short description of the Project Board, key implementing partner arrangements, etc.**

The project is being implemented following UNDP's national implementation modality (NIM), embedding significant UNDP-support implementation, (according to the ProDoc and the Standard Basic Assistance Agreement between UNDP and the Government of Sri Lanka - the combined delivery mechanism), and the approved Country Programme 2014-2017.

To 9 August 2020, the Executing Entity (EE) for this project was the MoMDE, then this was changed to the Ministry of Irrigation<sup>30</sup>. Thus, MoI is accountable to UNDP for managing the project, including the monitoring and evaluation (M&E) of project interventions, achieving project outputs, and for the effective use of UNDP resources. UNDP, in agreement with the Government of Sri Lanka (GoSL), are providing extensive implementation support<sup>31</sup> and oversight through the UNDP Country Office (CO), the Bangkok Regional Office and Headquarters).

<sup>29</sup> Source: Mr Nandana Mahakumarage, CRIWMP GIS Expert

<sup>30</sup> One of the project's RTAs informed GCF about the changes to the EE and RPs through an email on 20th November 2020. This was reconfirmed in the first draft of the Restructuring Proposal (dated 14 Dec 2020) and the 2020 APR.

<sup>31</sup> Including support for complex procurement, also in 2020 for wider implementation support, as GoSL did not have an approved budget – level varies year to year - agreed annually with the workplan at the PB meeting

A group of other Responsible Parties (RPs) identified in the FP and ProDoc entered into agreements with MoMDE to assist in delivering project outputs in 2016. Some of these were also changed in 2020, as the functions of the former Ministry of Disaster Management (a RP in the FP) and its key institutions; Department of Meteorology (DoM) and Disaster Management Center were brought under the Ministry of Defence and were re-assigned to the current State Ministry of National Security, Home Affairs and Disaster Management. The Department of Agrarian Development (DoAD), the Department of Agriculture (DoA), Department of National Community Water Supply (DoNCWS) and National Water Supply and Drainage Board (NWSDB) remain involved. UNDP has overall oversight of the EE and RPs to ensure compliance with its policies and procedures. According to the 2020 draft APR, *“these changes and associated issues were communicated to GCF by the restructuring proposal<sup>32</sup>. However, the change in EE is not expected to materially impact the implementation and/or affect the progress of the project”*.

The Project Board (PB)<sup>33</sup> includes:

- \* Executive Secretary of the EE [Mol - formerly MoMDE];
- \* the Senior Beneficiaries [Additional Secretary (Water Resource Planning, Mol) also a Representative of the NDA (Climate Change Secretariat)];
- \* the Senior Supplier [UNDP (Represented by Deputy Country Director (Operations and Programme)).

The Senior Supplier, UNDP provides quality assurance for the project, ensures adherence to the NIM guidelines and ensures compliance with GCF and UNDP policies and procedures. The PB has met five times since July 2017 (see Table 4), which is fewer than planned in the FP & ProDoc (twice/year). The number of participants to each meeting was increasing (to 2020), possibly reflecting growing interest in the project and its results. The reduced attendance in 2021 could be COVID-19 related.

**Table 4: Dates and attendee numbers for Project Board meetings<sup>34</sup>**

Date	# of attendees
27/07/17	26
20/12/17	24
21/01/19	37
07/01/20	53
25/01/21 <sup>35</sup>	27

According to the FP, *“Project Support comprises of an Inter-ministerial Coordinating Committee (IMCC) and a Technical Advisory Committee (TAC) to enable coordination between the key actors of this multi-sectoral project. The IMC established under the Presidential Secretariat during project preparation to provide inputs and endorsement of project design will continue as the national coordinating and monitoring body. The TAC, consisting of 4-6 paid experts will support the Project Board and Inter-Ministerial Committee. TAC members will be drawn from ex-government, private sector, academia and civil society to provide strategic guidance on the project drawing from international knowledge and best practices.”*

However, there is no project Technical Advisory Committee, as the IE have been informed that *“the Finance Ministry informed the Implementing Partner to use the available expertise within RPs”*.

However, the project assembled a Technical Working Committee (TWC) focusing on Output 1, considering a substantial portion of the expertise needed for this Output lies outside the government institutions. This committee consists of experts from the Ministry of Irrigation, Water Resources Board, DAD, IWMI, academia and non-government technical experts on cascade management. It has met once

<sup>32</sup> As of 4 May 2021, the Restructuring Proposal (dated 5 April 2021) had not been submitted to the GCF as it awaits GoSL approval.

<sup>33</sup> CRIWMP does not have a separate National Steering Committee

<sup>34</sup> Not gender disaggregated

<sup>35</sup> At time of IE, Minutes had not been agreed – only brief notes and Annexes shared

a year from 2018 until 2020, and a meeting in 2021 is planned. The matters deliberated in the TWC includes cascade water resources management, using traditional knowledge, introducing new technology, and suggestions for removing technical and institutional barriers.

The project benefits from the leadership of both a Project Manager and Project Director, both of whom are based in the large joint GoSL/UNDP PMU in Mol, Colombo, to run the project on a day-to-day basis on behalf of Mol within the constraints laid down by the Project Board. Their responsibilities include to ensure that the project produces the results specified in the project document, to the required standard of quality and within the specified constraints of time and cost. The annual work plan (AWP) is prepared by the Project Director with the support of Project Manager through a consultative process with IP, RPs and other local stakeholders, including the CSOs and reviewed and approved by the PB. However, the final approval is provided by the Regional Technical Advisors (RTAs), the Nature, Climate and Energy team of UNDP as part of the quality assurance role. The Project Director, with the support of Project Manager, is also responsible for managing and monitoring the project risks initially identified and submit new risks to the project board for consideration and decision on possible actions if required and update the status of these risks by maintaining the project risks log according to the NIM Guidelines.

Project has established a sub-office at Anuradapura District led by the Deputy Project Director (DPD). The DPD is responsible for coordinating with provincial, district and divisional level stakeholders including RPs while monitoring the field level activities as well through the technical specialists.

The project is well co-ordinated at sub-national level by a range of committees including District and Divisional Coordination Committees that include representations by GoSL officers and politicians (water being a politically sensitive issue nationally), also District and Divisional Agriculture Committees chaired by District and Divisional Secretaries attended by GoSL officials. Each coordination committee has allocated a time slot to discuss the project progress and issues which should be fed via the DPD to PD level.

Local stakeholders and community members have a key role in the implementation and monitoring of the project. During the inception phase of the project MoMDE, working together with UNDP, consulted with all stakeholders, including vulnerable community members, farmers' organisation (FOs), community-based organisations (CBOs) and facilitated an understanding of the roles, functions, and responsibilities within the project's decision-making structures, including reporting and communication lines, also grievance resolution mechanisms.

The project's decentralized implementation modality includes developing partnerships with four civil society organizations (CSOs)<sup>36</sup> selected through a transparent evaluation process (see Table 5).

**Table 5: Civil Society Organisations Engaged by the Project and Geographical Coverage**

Name of CSO	Districts Covered
Janathakshan GTE Ltd	Anuradhapura and Trincomalee
PALM GTE Ltd	Vavuniya and Mannar
South Asian Partnerships Sri Lanka	Puttlam
Sri Lanka Red Cross Society	Kurunegala
No dedicated CSO recruited - Project Management Unit directly manages project work	Polonnaruwa

The role of the CSOs in targeted districts is to enhance the resilience of small-holder farmers through strengthened local institutional mechanism on climate change adaptation (CCA), social mobilization, participatory (community) planning and monitoring, inclusive development and to increase capacity. The project has partnered with these particular CSOs as they have expertise and interest in CCA in

<sup>36</sup> Engaged through UNDP's Responsible Parties Arrangement by the PMU as Service Providers. Seven CSOs are mentioned in the ProDoc / FP but only four passed the stringent selection procedures.

development. They are also responsible for implementation of the project's social mobilization strategy, engaging, educating and empowering communities including the range of vulnerability contexts and social groups (different castes and ethnicities). The expected results from CSO engagement to the project ties with main areas as follows:

1. Ensure all the relevant stakeholders at grassroots level are well aware about the project concept and approach in order to create conflict-free environment for project implementation;
2. Assure support and cooperation of district, divisional and community level stakeholders for project implementation;
3. Engage, educate and empower project beneficiaries, CBOs, FOs, and other local stakeholders through a well-planned social mobilization strategy to increase their adaptive capacities to face the new climatic variabilities and shocks;
4. Build capacity and strengthened Institutional setup - as these CSOs continue to work in these areas beyond the project implementation period, this strategy will contribute to project sustainability

Project activities implemented through CSOs are monitored as follows:

- \* Each CSO has a district level annual work plan (AWP);
- \* Monthly action plans, compatible with the AWP (prepared in consultation with sector specialists);
- \* Bi-weekly review meetings are held between the CSOs and project staff (field and national levels, including experts) to:
  - Present the physical progress;
  - Discuss the bottlenecks and remedies to overcome and facilitation needs from different level project staff and other stakeholders;
  - Present the financial progress and related issues.
- \* Monitoring of monthly progress of the performed activities of CSOs by the experts of each Output;
- \* District level monitoring visits by the experts (at least monthly/district) and meeting with CSO staff / other relevant stakeholders to ensure smooth running of project (some now by Zoom);
- \* Submission of Quarterly and Annual Progress Reports by the CSOs, in accordance with a standard format provided by the PMU / CO.

The project is also working with the private sector, including:

- \* Engineering Consultants (Pvt) Ltd and Infotech Ideas Pvt Ltd, - Survey, design and construction supervision consultant for irrigation;
- \* SR Bio Foods, Sri Lanka Green Crop Production Society, Food Revolution (pvt.) Ltd, and Ceylon Biscuits Limited - developing forward sales agreements between the reputed private companies and community organizations to increase the market sustainability by ensuring better market offtake for the agricultural produce";
- \* Ceywater Consultants Pvt Ltd -feasibility, design and construction supervision of drinking water supply systems;
- \* Civil work contractors -carryout irrigation and drinking water construction activities;
- \* Inova Engineering (Pvt) Ltd – automated meteorological stations;
- \* Leecom Scarda Systems (Pvt) Ltd and Geoinfo (Pvt) Ltd – manual water measuring gauges and trainings;
- \* Institute of Participatory Interaction in Development (IPID) and Global Research Foundation – training and capacity building of drinking water planners and users (under Output 2).

The project is working extensively with academia, including:

- \* University of Colombo – all aspects of training for all three project Outputs, including training needs assessments, validations then development of training modules;
- \* Sabaragamuwa University - conducted engineering surveys prior to flood modelling activities;
- \* Engineering Design Centre of the University of Peradeniya - flood modelling work.

Tables 6 and 7 provide details of the sequence of the project's milestones and external factors which have had a significant impact on project implementation.

**Table 6: Project Timing and Milestones and External Factors**

Date	Milestone
<b>30 June 2016</b>	Date Approved
<b>16 June 2017</b>	LPAC Date
<b>28 June 2017<sup>37</sup></b>	FAA effective
<b>12 September 2017</b>	Inception Workshop
<b>6 April 2020</b>	Note to GCF File regarding Output 2
<b>May 2020</b>	Disbursement of 4th tranche of the GCF grant delayed led to postponement of the VIS upgrading programme (Output 1)
<b>9 August 2020</b>	Mol took over from MMDE as EE
<b>16 October 2020</b>	Responses to the GCFSec. queries
<b>16 October 2020</b>	Additional Information (Chronology of Events) from PMU
<b>14 Dec 2020</b>	First draft Restructuring Proposal submitted:
<b>March 2021</b>	Re-structuring proposal received by Mol for reviewing
<b>Late march – June 2021</b>	Interim Evaluation of CRIWMP
<b>5 April 2021</b>	Restructuring Proposal finalised by PMU / CO (reportedly approved by GoSL on 7 May 2021, awaiting no objections letter, thence to be submitted to the GCF)
<b>28 June 2024</b>	Estimated CRWIMP Completion

**Table 7: External Factors which have affected implementation of CRIWMP**

Date	External Factors
<b>February 2018</b>	Local elections
<b>16 Nov 2019</b>	Presidential Election
<b>March 2020</b>	Parliament dissolved and Caretaker Cabinet appointed
<b>March -&gt; May 2020</b>	COVID-19 pandemic – national lockdown (movement restrictions, import / export restrictions, shortages of foreign currency etc.)
<b>May 2020 - present</b>	Varying levels of COVID-19 restrictions
<b>5 August 2020</b>	Parliamentary Elections
<b>August 2020</b>	Reshuffling of GoSL agencies and new Ministries established <sup>38</sup>
<b>August 2020 onwards</b>	Regional lockdowns due to COVID-19
<b>Early Dec 2020</b>	Tropical Cyclone Burevi – damage not as severe as feared; provided an opportunity to test village disaster management committees and evacuation plans (established by the project)
<b>Early May 2021</b>	Additional lockdowns due to COVID-19

### Main Stakeholders

The full list of the stakeholders is provided in Annex 6.

<sup>37</sup> <https://www.greenclimate.fund/project/fp016> Delays in the AMA signing contributed to the delayed FAA.

<sup>38</sup> The Project, which was under the Ministry of Mahaweli Development and Environment in 2019 was listed under the Ministry of Irrigation after the Parliamentary elections, which is now the new Executing Entity (EE) (Implementing Partner in UNDP parlance). Further, the functions of the former Ministry of Disaster Management (i.e. Responsible Party) and its key institutions; Department of Meteorology (DoM) and Disaster Management Center were brought under the Ministry of Defence and were re-assigned to the current State Ministry of National Security, Home Affairs and Disaster Management.

## 4. Findings

### 4.1 Project Strategy

#### Project Design

The **objective** of the CRIWMP is to strengthen the resilience of smallholder farmers in the Dry Zone to the impacts of climate change, which are particularly increasing the frequency and intensity of climatic hazards and extreme events (heavy rainfall, floods, landslides and droughts). It was therefore designed to improve water management for agriculture (Output 1), provision of drinking water (Output 2) and to enhance resilience towards water-related disasters (Output 3) to improve lives and livelihoods which are increasingly being deleteriously affected by climate change. The design was firmly based on experiences and lessons learned from many different projects and programs in Sri Lanka and beyond. The project is adopting a landscape / river basin inter-sectoral approach, which has been well and widely proven over many years as an approach that can bring together water uses and users into an integrated framework for effective water resource management<sup>39</sup>. It also uses a bottom-up community-based approach, unlike previous water management projects, which have been top-down. The project adopted the tank-cascade as the basic water management unit, which has been advocated by many researchers and experts in the field of small-scale farmer-managed irrigation during last two decades. (Historical evidence shows that tank cascades were built over 5000 years ago to address water scarcity.)

The design of **Output 1** in targeting rehabilitation of 325 of the increasingly (due to CC) vital VIS including tanks and anicuts (diversion schemes), some over 1,000 years old and the wider cascade systems (linking the tanks to village irrigation systems) was based on local lessons learned from smaller-scale projects funded by the Global Environment Facility (GEF) Special Climate Change Fund (SCCF). The cascade improvement works in Output 1 are complimented by the introduction of proven climate smart agricultural (CSA) practices<sup>40</sup>, as traditionally farmers in Sri Lanka have concentrated on agriculture that is heavily dependent on water. CSA includes drought tolerant crop varieties and cropping patterns which consume less water, aiming to make smallholder farmers' livelihoods more resilient to CC. The project the project is providing inputs such as seeds. The project is also supporting developing market linkages and value-chains to ensure smallholder farmers can benefit financially from increased market accessibility and ecological agricultural products to support improved livelihoods.

**Output 2** of the project aims to address the lack of available safe drinking water in the Dry Zone. It was designed to deliver drinking water solutions to poor farmer households through a multi-pronged partnership approach to replenish sources, build storage, supply clean and safe drinking water and address root causes of water quality issues. It is to improve investments and strengthen institutional capacities, by scaling up solutions including rainwater harvesting (rwh) and community-managed treatment plans and purification systems, which have been successfully demonstrated elsewhere in Sri Lanka. The project is promoting participatory and entrepreneurial approaches to increase the sustainability of drinking water supply and management solutions. This is in line with one of the goals of the Sri Lanka 2030 Vision, which is *"to provide access to 'quality drinking water' for every citizen despite climate change, drought or rain; to ensure water for agriculture, including paddy, other food crops ...."*<sup>41</sup>.

In the face of the intensification of weather variability, also the increasing frequency and intensity of extreme weather events (heavy rainfall events, floods and droughts), **Output 3** was designed to enhance Outputs 1 and 2, particularly linking smallholder farmers to sources of reliable weather information and advice tailored to their needs (including agrometeorological bulletins for farming system resilience and

<sup>39</sup> Dating from the pioneering work of Molden, D. (2007) Comprehensive Assessment of Water Management in Agriculture. Available from: <https://www.routledge.com/Water-for-Food-Water-for-Life-A-Comprehensive-Assessment-of-Water-Management/Molden/p/book/9781844073962>

<sup>40</sup> FAO (2013) Climate Smart Agriculture Sourcebook. Available from: <http://www.fao.org/3/i3325e/i3325e.pdf>  
Also for Sri Lanka - <http://www.fao.org/in-action/save-grow-climate-smart/in-action/lka/en/>

<sup>41</sup> Sustainable Sri Lanka 2030 Vision and Strategic Path (2019). Available from: <http://www.presidentsoffice.gov.lk/wp-content/uploads/2019/05/Final-v2.4-Typeset-MM-v12F-Cov3.pdf>

early warnings of extreme events). The Output has also included detailed mapping and modelling to provide early warning information for disaster preparedness / mitigation.

Capacity building is a key element of all three Outputs, with awareness raising, training and training of trainers (ToTs).

#### How the project addresses country priorities and country ownership

Most informants to the IE confirm that the project is greatly appreciated in the country and has been described to the IE as "a masterpiece", "best project in Sri Lanka" and "a top priority" at national level. Already the project's approaches and lessons are being used in the design of larger future projects (an Asian Development Bank project targeting rehabilitation of 2,400 tanks; a World Bank CSA project using the agro-met bulletins). Furthermore, positive lessons are being included in the drafting of a new agricultural policy, due to be finalized by 30 May 2021. The project's modelling of flood risk (including hydrological modelling; detailed mapping of all tanks, hhs, villages, roads; hh socio-economic surveys to assess risk (e.g. presence of disable, also access to ITC) in Output 3, leading to development of 126 flood prone GN plans and SOPs for floods and droughts proved invaluable in the 2020 tropical cycle to ensure vulnerable were evacuated safely.

#### Alignment with the national sector development priorities and plans

The project was strongly aligned with national priorities at the time it was designed in 2015 / 2016 and is even more so in 2021, as the impacts of climate change are being felt even more strongly including the very serious drought in 2016<sup>42</sup> (after GCF approval) resulting in shortages of water for agriculture and drinking, also increasingly heavy rainfall events leading to floods and landslides. For example, the project is well aligned to the GoSL's 2030 Vision document which was published in 2019, the first Key Action Recommendation of which is "Implement urgent short, medium and long-term measures to reduce vulnerability to disasters (eg. droughts, floods, landslides) and adapt to climate change"<sup>43</sup> (also see Box 1). The CRIWMP also contributes to three of the 2018-2022 UN Sustainable Development Framework (UNSDF)<sup>44</sup> Strategic Drivers (1,3 and 4):

1. Towards improved data, knowledge management and evidence-based policy;
2. Strengthened innovative public institutions and engagement towards a lasting peace;
3. Human security and socio-economic resilience;
4. Enhancing resilience to climate change and disasters and strengthening environmental management.

#### **Box 1: Vision 2030 nine-point action frame to address poverty - remedies, measures and implementation** (in brief)

1. Enhance the capacity and the ability to better forecast seasonal rainfall and provide early warnings on extreme events;
2. Develop institutional arrangements to speedily respond to early weather warning signals;
3. Drought tolerant crop varieties and cropping patterns which consume less water must be developed and made available to farmers.;
4. Incentivize farmers to adopt water saving cropping patterns and cultural practices;
5. Provide farmers with technical solutions which save water, labour and agro-chemicals (CSA, RWH, micro irrigation using solar pumps);
6. Educate farmers on the need to conserve water and the use of new technology for farming, value addition and marketing;
7. Organise farmers to overcome the scale constraint so that less water using crops can be produced;

<sup>42</sup> [https://www.wfp.org/publications/Sri\\_Lanka\\_Drought\\_Assessment](https://www.wfp.org/publications/Sri_Lanka_Drought_Assessment)

<sup>43</sup> Sustainable Sri Lanka 2030 Vision and Strategic Path (2019). Available from:

<http://www.presidentsoffice.gov.lk/wp-content/uploads/2019/05/Final-v2.4-Typeset-MM-v12F-Cov3.pdf>

<sup>44</sup> [https://lk.one.un.org/wp-content/uploads/2017/08/Final\\_UNSDF\\_2018-2022.pdf](https://lk.one.un.org/wp-content/uploads/2017/08/Final_UNSDF_2018-2022.pdf) - which is aligned to the Sri Lanka National Development Strategy and the SDGs

8. Fully leverage the recent advances in information technology and increased mobile telephone penetration to provide real time weather, pest and disease, as well as market data to farmers and village level officials;
9. Educate consumers at large on better nutrition and appropriate changes in food habits.

The project also contributes to the new Vistas of Prosperity and Splendour (2020 – 2025) National Policy framework (NPF), specifically towards:

*A Productive Citizen and a Happy Family*: - activities to modernize agriculture include:

- \* *Increase Land Productivity (Output 1)*
- \* *A methodology to bring lands to productive uses (Output 1)*
- \* *Introduction of an integrated soil fertility management system Introduction of environmentally friendly farming (Output 1);*
- \* *Promote the cultivation and production of OFCs (dried chilies, maize, soya, green grams, cowpea, onions and potatoes) (Output 1);*
- \* *Maximize the economy of water usage (Output 2).*

*New Approach in National Spatial System (Bridging the urban and rural gap by providing services and infrastructure facilities equally across the sectors of living) including ensuring entire population in the country is provided with clean & safe drinking water while increasing the access to pipe borne water.*

*In the Water Sector, the goal is Ensuring water for all - ensure water resources are free from pollution and manage it in an efficient manner for drinking and agriculture purposes (Outputs 1, 2,3) including the following activities:*

- \* *Make awareness campaign to educate people with the support of university students, school children and youngsters about keeping water resources clean;*
- \* *Encourage application of modern techniques and drip irrigation into the agriculture for the efficient water usage;*
- \* *Protect rivers, lakes and reservoirs/tanks from chemicals, pesticides and other harmful chemical;*
- \* *Increase water storage capacity by expanding the existing capacities of tanks/reservoirs and constructing new tanks and reservoirs;*
- \* *Introduce a water storage mechanism for all new houses located in water-scarce areas to recharge the ground water and reduce ground water misuse.*

Also the strategy to *Ensure 24 hour reliable water service:*

- \* *Expand and improve the efficiency of current projects implemented by National Water Supply & Drainage Board and Community Water Supply Projects (Output 2).*

#### Involvement in the decision-making processes during project design

GoSL and other stakeholder informants to the IE who were involved in the design phase of the project confirm that their assessments were considered and integrated into the project design, along with lessons learned on the earlier GEF SCCF project and other river basin projects.

During the field mission of the IE, the NC verified that at field level district officers, CSOs and smallholder farmers were involved in the project design was by direct consultation. The MMDE appointed a Technical Working Group comprising representatives from main government institutions, CSOs, and IWMI where consultations were carried out regarding the project scope, river basin approach, cascade selection criteria (Annex 22), and the engagement of the community. This was followed by consultations at District level to obtain the cascade information and the community needs, mainly through DAD field staff. Notably, district climatic vulnerability exercises were completed through meetings with involved farmers. The design of specific interventions at the cascade level was through an extensive consultation with the beneficiaries. In the case of irrigation, this process included the identification of VISs in the cascades, a preliminary investigation of rehabilitation needs, pre-ratification of the designs proposals, and ratification of upgraded infrastructure.

Review conditions and covenants of the FAA, with special reference to clause 9.02

Reviewing the conditions and covenants of the FAA with special reference to clause 9.02 into the project design process, which states that UNDP shall [the IE findings underlined in red]:

- a) In each APR, the report to the Fund on the status of the co-financing funds that have been disbursed and applied to the implementation of the Project activities – confirmed by the IE IC;
- b) Disburse funds from the GCF Proceeds to the Executing Entity and ensure that any disbursements of the GCF Proceeds by the Executing Entity to the Responsible Parties, is made only after having completed the assessment of the Executing Entity's and the Responsible Parties' capacity under the UNDP Framework for Cash Transfer to Implementing Partners as satisfactory to implement the Project – Micro Assessments were done for Implementing Partner and all Responsible Parties of the project. There is an issue around the % of the GCF grant which UNDP CO disburses directly, rather than passing through the GoSL Treasury which needs to be resolved urgently, for legal reasons and to ensure mobilization of all the promised co-finance;
- c) Ensure that the legal agreements between the Executing Entity and the Responsible Parties are signed and effective prior to the Responsible Parties' involvement in the Project – Legal agreements / MoU were signed before initiating Responsible Party activities under the project;
- d) Undertake and / or put in place any adequate measures in order to ensure that the management of the environmental and social risks and impacts arising from the Funded Activity complies at all times the recommendations, requirements and procedures set forth in the Environmental and Social Management Plan and the Social and Environmental Screening Procedure, which were provided by the Accredited Entity to the Fund before the Approval Decision – adequate measures are in place to manage environmental and social risks and impacts. These include a site-specific environmental and social management plan implemented and monitored by the PMU and the Engineer during the implementation and preparing an environmental management and catchment conservation plan for the cascade to ensure long-term sustainability;
- e) Obtain, or ensure that the Executing Entity shall acquire, all land and rights in respect of land that are required to carry out the Funded Activity and shall promptly furnish to the GCF, upon request, evidence that such land and rights in respect of the land are available for the purposes of the Funded Activity – Project has not acquired any land for funded project activities.

Annex 16 provides information on the other conditions and covenants of the FAA conditions.

According to the project APRs and informants to the IE, the project is fully compliant with national applicable laws and regulations, namely: Forest Ordinance – N. 17 (1907) and subsequent amendments; Fauna and Flora Protection Ordinance Act (1993); Antiquities Ordinance; National Environment Act.

All project activities are being implemented following the national health guidelines for COVID-19-19 issued by the Ministry of Health.

#### Extent to which relevant gender issues were raised in the project design

The project design documents all emphasise that the project was designed to have "gender-sensitive development impact". It was designed to "yield positive outcomes related to health and well-being, decision making, access to resources, livelihoods, and income generation for women targeted through these various project interventions."

As required by the GCF, a Gender Assessment (GA)<sup>45</sup> and Gender Action Plan (GAP) were prepared as part of the project approval process.

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<sup>45</sup> Reportedly based on "Consultations with Community-Based Organisations took place on the 26th February 2016 at the United Nations Compound in Colombo, Sri Lanka".

The GA noted the existing gender inequalities in rural Sri Lanka including: poverty, education, political participation, income, labour force, violence and the gender inequality index. However, the 2016 GAP is a very brief 4-page table, where each of the project's planned activities was reworded to highlight how the project intended to benefit women.

### Critical analysis of the Results Framework

The IE team have the following comments on the Results Framework<sup>46</sup> (RF):

- \* Confirmation that the indicators are "SMART" (Specific, Measurable, Attainable, Relevant, Time-bound).
- \* The RF does not include any Mid-Term or End of Project Target for the SDG indicators and UNDP Strategic Plan Indicators (not required by GCF – only in UNDP ProDoc , not FP).
- \* The right-hand column of Table 8 systematically lists the IE comments on the RF.

**Table 8: Analysis of Results Framework**

Impact / Outcome / Outputs	Indicator	Baseline	Mid-Term Target	End of Project Target	IE Comments
Fund level Impacts: * A 1.0 Increased resilience and enhanced livelihoods of the most vulnerable people, communities, and regions	Total number of direct and indirect beneficiaries (% of whom is female)  Indicator 1.2 Number of males and females benefiting from the adoption of diversified, climate resilient livelihood options	0	-	1,950,374 (51% female)  9.6% of total population  770,500 (51% female) direct  1,179,874 (51% female) indirect  520,000 (265,200 women)	Ambitious targets amounting to 9.6% of the population of the country.  Lacks mid-term targets.
* A 2.0 Increased resilience of health and well-being, and food and water security	Indicator 2.3: Number of males and females with year-round access to reliable and safe water supply despite climate shocks and stresses.	0	-	517,800 (264,078 women)	Lacks mid-term target.  Lacks a health target.
Project Outcome A7.0 Strengthened adaptive capacity and reduced exposure to climate risks,	Indicator 7.1: Extent to which vulnerable households, communities and businesses use improved strategies and	0	422,664	770,500 (392,955 women)	

<sup>46</sup>Copy of the Results Framework is included as Annex 14 for reference

Impact / Outcome / Outputs	Indicator	Baseline	Mid-Term Target	End of Project Target	IE Comments
	activities to respond to climate variability and climate change				
Output 1: Upgrading and enhancing resilience of village irrigation systems and scaling up climate-resilient farming practices in three river basins of the Dry Zone	<p>7.1: Extent of minor irrigation under targeted cascades with increased cropping intensity (CI&gt;1.6<sup>47</sup>)</p> <p>Number of male and female farmers reached through dissemination of climate resilient agriculture technology packages.</p> <p>No of women farmers implementing climate resilient agriculture technologies and practices</p>	<p>0</p> <p>CSA packages not being disseminated</p> <p>0</p>	<p>8,875 ha (=88.75 km<sup>2</sup>)</p> <p>416,000 (212,160 women)</p> <p>13,209</p>	<p>9,750 ha<sup>48</sup> (=97.50 km<sup>2</sup>)</p> <p>520,000 (265,200 women)</p> <p>16,677</p>	<p>Includes both mid-term and end of project targets.</p> <p>Target area works out at ~30 ha / tank (target is 325 tanks)</p> <p>IE considers it is challenging to expect to achieve 91% of the overall total by mid-term.</p> <p>Achieving a CI of 1.6 is also tough.</p> <p>Lacks a gender disaggregated youth target.</p>
Output 2: Enhancing climate resilient, decentralized water supply and management solutions to provide year-round access to safe drinking water to vulnerable communities	<p>Number of households with year-round access to reliable and safe water supply</p> <p>Number of women engaged in managing and maintaining community drinking water supply schemes</p>	<p>0</p> <p>&lt;1,000</p>	<p>130,200</p> <p>&gt;10,000</p>	<p>217,000 (72,300 based outside river basins)</p> <p>&gt;20,000</p>	<p>According to the project design, beneficiaries have been selected from the districts associated with three river basins. Project has selected beneficiaries outside the river basins but within the 7 associated districts.</p> <p>Very heavily dependent on achievements in the second half of the project.</p>

<sup>47</sup> As noted elsewhere, sign used in FP and ProDoc (<) is incorrect – should be greater than >

<sup>48</sup> The total area of the three river basins is 6,338 km<sup>2</sup> - actual total 1.54% of the basins

Impact / Outcome / Outputs	Indicator	Baseline	Mid-Term Target	End of Project Target	IE Comments
Output 3: Strengthening climate and hydrological observing and forecasting system to enhance water management and adaptive capacity of smallholder farmers to droughts and floods	Number of female and male farmers reached through seasonal forecast for agriculture planning	0	156,000 (79,560 women)	520,000 (265,200 women)	Lacks a gender disaggregated youth target.
	Number of female and male farmers receiving advisories for water management	0	133,650 (68,161 women)	445,500 (227,205 women)	

#### Clarity, practicality and feasibility of the Objective, Outcome and three Outputs within the time frame

The IE find the project's Objective and Outputs clear, practical and synergistic, with the Activities to achieve the Outputs well defined and appropriate, using landscape and community approaches. However, the IE considers the overall Fund level Impacts:

- \* A 1.0 Increased resilience and enhanced livelihoods of the most vulnerable people, communities, and regions) of reaching 1,950,374 (51% female) beneficiaries [770,500 (51% female) direct and 1,179,874 (51% female) indirect] {9.6% of total population}

and

- \* A 2.0 Increased resilience of health and well-being, and food and water security
- \* Indicator 2.3: Number of males and females with year-round access to reliable and safe water supply despite climate shocks and stresses. 517,800 of which 264,078 are women

both are challenging for a 7-year project, although as the majority are indirect, this should be attainable.

#### Catalysing beneficial development benefits

The combined impacts of Outputs 1 and 3 should catalyse increased crop yields and reduced inter-annual variability, which will catalyse increased food security and, when linked to markets / value chains, will lead to increased household incomes. It would be valuable to track these through participatory monitoring via the producer groups, CSO records and farmers' records, perhaps using the food insecurity experience scale<sup>49</sup>, as this enhances commitment at very marginal cost to the project. Output 2 should lead to health benefits, but this will be a longer-term Outcome.

#### Ensure broader development and gender aspects of the project are being monitored effectively

The project is monitoring gender disaggregated indicators for the project activities relating to the numbers of beneficiaries (Outputs 1 - 3) (target 51% women) and also monitoring households (Output 2), but not specifically female-headed hhs. The M&E also includes the extent in ha of minor irrigation (VIS) in targeted cascades with increased cropping intensity (target CI > 1.6)<sup>50</sup>.

<sup>49</sup> See FAO (201) The Food Insecurity Experience Scale: Measuring food insecurity through people's experiences. Available from: <http://www.fao.org/3/i7835e/i7835e.pdf> and Implementing the Food Insecurity Experience Scale (FIES) in surveys Available from: <http://www.fao.org/3/ca1454en/CA1454EN.pdf>

<sup>50</sup> Each of these VIS currently does not support farmers to complete one full season. The minor season, which is generally dry depends heavily on stored water in the village reservoirs. If there is not sufficient storage, minor season cultivation is abandoned. Therefore, cropping intensity, measured by the number of times the irrigated downstream is fully cultivated, is less than 1. By upgrading storage and efficient water allocation, project aims to increase cropping intensity in these village irrigation systems to 1.6 or more, by improving the ability to use the downstream lands during the minor season. [Typing error in FP and ProDoc corrected here]

The IE concurs with the project's revised Gender Action Plan and Gender Study (2019) recommending collecting more comprehensive gender, age and disability (GAD) disaggregated data. Gender disaggregated youth data is reportedly now collected by the project. This is reflected in the 2020 APR, where for example it notes: "Climate smart agriculture extension services were provided to 49,094 farmers (24,056 male and 25,038 female) through Provincial Agriculture Departments in order to promote agrometeorological advisory based agricultural decision making and agriculture technology packages in 7 project districts. Out of these 25,038 women farmers, agriculture technology packages were adopted by 13,503 women beneficiaries (325 widows, 1116 youth, 73 farmers with disabilities) during the reporting year."

#### Evaluate the Theory of Change

The IE team conclude that the project's Theory of Change (ToC) (see Annex 17) is clearly based on the logical linkage between the Activities, three synergistic Outputs, toward the Outcome, Objective and the Fund Level Impacts. The ToC specifies the five current barriers however, it makes no mention of the assumptions which are detailed in the FP and ProDoc which are very significant (see Table 9).

**Table 9: Assumptions in the Results Framework**

<b>Impact / Objective / Output</b>	<b>Assumptions<sup>51</sup></b>
<p><b>Fund level Impact:</b> A 1.0 Increased resilience and enhanced livelihoods of the most vulnerable people, communities, and regions</p>	<ul style="list-style-type: none"> <li>* Completed infrastructure and sustained maintenance for water supply systems</li> <li>* Uptake of training and capacity building by provincial, district and ASC officials on water management, climate resilient agriculture packages, flood/drought and management advisories</li> <li>* Efficiency and reach of the SMS-based communication system for flood warning and water management advisories</li> <li>* Completed irrigation infrastructure and sustained O&amp;M.</li> <li>* Uptake of training and capacity building by farmers related to the CSA practices.</li> </ul>
<p><b>Fund level Impact:</b> A 2.0 Increased resilience of health and well-being, and food and water security</p>	<ul style="list-style-type: none"> <li>* Completed infrastructure and sustained maintenance for water supply systems.</li> <li>* Uptake of training and capacity building by provincial, district and community stakeholders on water management, flood/drought and management advisories.</li> <li>* Efficiency and reach of the SMS-based communication system for flood warning and water management advisories.</li> </ul>
<p><b>Project Outcome</b> A7.0 Strengthened adaptive capacity and reduced exposure to climate risks</p>	<ul style="list-style-type: none"> <li>* Completed infrastructure and sustained maintenance for VIS.</li> <li>* Agrarian Service Centres are able to reach all smallholder farmer families in their areas with climate risk information and agriculture packages.</li> <li>* There is continued commitment and uptake of the information by targeted communities in the project.</li> </ul>

<sup>51</sup> Source: UNDP ProDoc

Impact / Objective / Output	Assumptions <sup>51</sup>
<b>Output 1:</b> Upgrading and enhancing resilience of village irrigation systems and scaling up climate-resilient farming practices in three river basins of the Dry Zone	<ul style="list-style-type: none"> <li>* Village irrigation upgradation is completed on schedule without large disruptions from extreme weather events or from bureaucratic delays in approvals etc.</li> <li>* Agrarian Service Centres are able to reach all small holder farmers through Farmer Organisations</li> <li>* Climate smart packages and agriculture advisories are available in every Agrarian Services Centre</li> </ul>
<b>Output 2:</b> Enhancing climate resilient, decentralized water supply and management solutions to provide year-round access to safe drinking water to vulnerable communities	<ul style="list-style-type: none"> <li>* Completed infrastructure and sustained maintenance for water supply systems</li> <li>* Uptake of training and capacity building by women enterprises on sustained O&amp;M.</li> </ul>
<b>Output 3:</b> Strengthening climate and hydrological observing and forecasting system to enhance water management and adaptive capacity of smallholder farmers to droughts and floods	-

The project assumptions make no mention of the major issue which has arisen regarding Output 2<sup>52</sup>, (Activity 2.2) in which there was a change in this baseline condition which has influenced the overall costing of the community water supply systems (CWSSs). [The IE accept that this could not have been foreseen during project design. The delay in project start by a year was due to the negotiation of the Accreditation Master Agreement (AMA) with GCF that went on for an extended period and was not finalized until the second half of 2017.] [Output 2 is particularly important within the context of the project as the project areas currently use groundwater as a source of potable water. The groundwater is contaminated with heavy metals, nutrients and other chemical attributes that make it not only non-palatable but more importantly, extremely dangerous to life through its consumption. The consumption of the water has contributed to illnesses such as kidney disease and even death. The project is to establish water sterilisation and purification processes, to remove chemicals, heavy metals etc. from the water to increase its quality and contribute to reduction in the potential for kidney disease and other diseases.]

The project became effective on 28 June 2017, nearly a year after GCF approval, then the project Inception Workshop was held on 12 September 2017. During the delay, one of the RPs (Ministry of Water Supply and the DNCWS) allotted the water sources that had been identified for this project to other development projects that were ready for commencement (as the *"people needed water"*<sup>53</sup>). [Annex 18 provides more details on this issue, which are taken from the Restructuring Proposal dated 5 April 2021 (IE uncertain if this has been submitted to the GCF).]

As a result, the EE, at the time of inception, was compelled to search for new drinking water sources in remaining areas that were in more remote locations, where water resources were extremely scarce. By mid-2019, the EE used their own resources to investigate 102 locations, of which 30 proceeded to more detailed assessments and finally only 16 locations were considered to possess adequate quality and quantity of water. Areas within the water basins were prioritized in the water source investigations because one of the premises of the project is to build long-term resilience within the basin-level. By January 2020, cumulatively, a total of US\$ 449,273 of GoSL co-financing had been spent for water source investigation activities including US\$ 327,000 for the 30 (full cycle) water sources investigation

<sup>52</sup> climate-resilient, decentralized drinking water management solutions

<sup>53</sup> Direct quote by an informant to the IE

operations at an average cost of around US\$ 10,900 per investigation. The 16 sources that were eventually identified had the quantity and quality of water that were poor enough that required additional treatment measures and were located further away from end-users, longer transmission pipeline and larger pumping systems.

Concurrently, efforts to identify alternative avenues for ensuring freshwater access continued. This included exploring the possibility of diverting water from other existing water schemes and increasing beneficiaries from other freshwater interventions. It was only on 6 April 2020, when a Note to File was submitted to GCF, when the project team was able to ascertain the full impact of the challenge of finding usable water sources on the number of beneficiaries and the budget.

The newly identified water sources yield poorer quality of water than originally expected in the FP, requiring a higher level of water treatment to meet the national drinking water quality standards. The treatment measure expected to be used (in the FP) was simple roughening filtration, which removes solids and mud particles. The actual measures that are required is an advanced purification and filtration systems (AFS technology and the use of nano filters), that in addition to removing solid particles also filters out dissolved chemicals (which cause hardness, salinity and include fluoride), also organic compounds and of removal of colour.

## 4.2 Relevance

### Analysis and review of project during initiation

Reviewing the Inception Report and discussing the issues with informants, the IE team conclude that the project context, problem, needs and priorities were satisfactorily analyzed and reviewed during project Inception Workshop (IW). Although the main objective of the workshop was introduced as *"to outline the key steps taken for the effective implementation of the project"* it allowed scope for suggestions to be made on changes and the way forward.

The workshop discussions highlighted the project's integrated, holistic approach to enhancing water management through the interconnected elements of irrigation systems and farming practices, drinking water supply and management, signifying a paradigm shift from the business-as-usual approach to water management in the country. It was agreed that the advanced concept of incorporating climate change concerns into integrated water management would considerably improve the understanding of linkages across river basins/sub-river basins and the multiple uses of water among VISs in cascades. The project would set standards and precedents for future river basin management planning, including the selection of river basins, cascades and village irrigation systems (VIS) based on adaptation potential and vulnerability, using the linkages among domestic water needs, livelihood needs, information needs and responding to community requirements in an integrated manner.

No changes were recommended to the budget and work plan. The multi-year work plan was presented, and no major concerns were expressed.

The adaptive management mechanisms established within the project were underscored in discussions.

The IW report highlighted that a ... *"gender analysis undertaken at the outset and design of the project through stakeholder engagement and consultation, acts as an entry point for gender mainstreaming throughout implementation"*. Also that the *"project team will be reviewing the gender action plan, specifically the roles and responsibilities of male/female community members, from a gender perspective and effect changes to the plan, if any, based on the recommendations of the team"*.

The IW report noted that the overall risk rating for this project remained *"moderate"* and no changes were recorded to the risk log.

The IW report did suggest that the targeted number of cascades for the project could be lower than the stated 30 and 50 listed in different parts of the FP & ProDoc. During project formulation, data related to village irrigation systems (VISs) and associated cascades were obtained from the existing database

of the Department of Agrarian Development. Using this data, 325 village irrigation systems (VIS) which include diversions and tanks were stated as the target for the project. As the exact number of VISs in the cascades was not known, it was assumed that a cascade would contain about 10 VISs and therefore, 30 cascades will be improved. However, in early 2017, UNDP with the support of Department of Agrarian Development carried out a comprehensive survey to map the existing VIS in the Dry Zone. The survey was undertaken under a separate initiative of UNDP for drought support. The updated database through the above initiative and the subsequent field verifications showed that cascade boundaries used by the Department of Agrarian Development are inaccurate and the number of VIS in the CRIWMP selected cascades was much higher than the previously available estimations. This is partly resulting from community and field level interventions to link the cascades to make the better use of drainage and spill waters. The IW recommended the project should adhere to the originally targeted 325 VIS.

Initial field surveys (pre the IW) also demonstrated that many community water supply schemes that already exist in the project area were disused due to quality concerns. As many project areas have high levels of chronic kidney disease, the project should *"look at restoring these water supply schemes and upgrading them with appropriate filtering/treatment systems to enable the community to consume water safely"*.

The project carried out a user perception survey of existing rainwater harvesting users and the outcomes and recommendations were incorporated into the implementation strategy.

Are the planned project Objective, Outcome and Outputs relevant and realistic?

The IE team confirm that the planned project Objective, Outcome and Outputs are even more relevant and realistic to the situation on the ground, in the context of this large GCF project.

The impacts of CC are increasingly being felt across Sri Lanka, particularly incidences of extreme weather events (more intense droughts and floods), for example, since the project was approved *"the drought in 2016 is reported as the worst event in forty years"* (see Chapter 3) and increasing frequency of record-breaking daily rainfall amounts, leading not only to flooding but also damaging landslides.

In response to the COVID-19 pandemic in 2020, many people who had moved to work in the cities returned to their villages:

- \* finding "without project" the local drinking water is groundwater contaminated with heavy metals, nutrients and other chemical attributes that make it not only non-palatable but more importantly, extremely dangerous to life through its consumption. Out 2 of the project contributes to SDG 6 - "clean water and sanitation for all", a human right.
- \* increasing the need for locally produced foods (COVID-19 led to import / export controls on food, putting pressure on national food supply chains). COVID-19 also led to increased need to food supply chains to be re-established between villages and cities. The project has supported these through interventions such as promoting urban and sub-urban home gardens and developing markets / supply chains.

The target numbers of beneficiaries to the project and increasing the CI in village lands to >1.6 are challenging targets but, notwithstanding the problems with Activity 2.2, the indicators are on track to be achieved.

Logic, coherence and realities of Theory of Change – does the ToC and intervention logic need to be adjusted?

The project's theory of change (ToC) is for the project to catalyse a paradigm shift in water resource management and use in the three river basins in the Dry Zone by adopting an integrated, holistic bottom-up approach to enhancing management through the interconnected elements of irrigation systems and climate smart farming practices, drinking water supply and management, all enhanced by awareness raising / knowledge management / agro-meteorology / early warning systems. It is the first time that an integrated approach to water management in tank-cascades incorporating CC concerns has been advanced in the country, understanding linkages across river basins/sub-river basins, including multiple uses of water.

The IE team confirm that in their judgment, shared with the informants to the IE, that the project's three Outputs and integrating them at the cascade level will contribute to the intended Outcome, which links to the broader paradigm shift Objective of the project. The IE also confirms that the planned inputs and strategies identified remain realistic, appropriate and adequate to achieve the results. They are sequenced sufficiently to efficiently deliver the expected results.

However, the change in baseline conditions regarding Output 2 (Activity 2.2) necessitate significant changes in the technical solutions and costs to develop drinking water supplies which meet national drinking water standards (Restructuring Proposal – about to be submitted to the GCF at the end of the IE). With the cost per CWSS increasing from \$100,000 to \$550,000, large-scale AFSs from \$16,000 to \$43,750 and small-scale AFSs from \$4,000 to \$8,000. The April 2021 final Restructuring Proposal presents calculations on the impacts of these changes, namely that the number of beneficiaries from freshwater investments in Output 2 will be reduced from 217,000 to 122,715 (-94,285) but this reduction in beneficiaries can be restored (under the Restructuring Proposal) by targeted training on water source protection and management, to reach 74,403 additional direct beneficiaries (see Annex 18).

Trends leading to the desired paradigm shift were observed during the field visits of the IE team. A considerable number of farmers were aware of the weather forecasts and agricultural advisories. They were aware of the positive impacts of activities such as home gardens and CSA technologies on food security. Many farmers were aware of the water levels in the tanks and could relate that to the water storage and how to use that for planning the cultivation season. They had the sufficient knowledge to read the rain gauges and make use of them for irrigation operations. They have made use of modern agricultural tools such as alternative wetting and drying and were able to optimize on-farm water use efficiency. As a result, a substantial water saving was observed by the farmers and in some cases, they are cultivating the farms in Yala for the first time in decades. Therefore, the positive trends of achieving the desired paradigm shift were evident.

### 4.3 Effectiveness and Efficiency

#### Effectiveness

Work is progressing well towards all three project Outputs [with the exception of Activity 2.2 (Implement sustainable, climate-resilient drinking water solutions through CBOs and government agencies), as described in Section 4.1 and Annex 19].

- \* Output 1: Upgrading and enhancing resilience of village irrigation systems and scaling up climate-resilient farming practices in three river basins of the Dry Zone
- \* Output 2: Enhancing climate-resilient, decentralized water management solutions to provide safe year-round drinking water to drought vulnerable communities
- \* Output 3: Strengthening climate and hydrological observing and forecasting systems to enhance water management and adaptive capacity of smallholder farmers to droughts and floods

Reviewing the seven project Output Indicators, overall progress towards the Outputs is considered to be good (with the exception of Output 2 – 2 indicators) of the remaining 5 indicators, 4 are judged by the IE to be on track to be achieved (see Table 10 in Section 4.4 below) despite the recent series of external factors which have affected the project (terrorism in 2019, elections in 2019 and 2020, COVID-19 in 2020 to present, tropical cyclone Burevi in Dec 2020).

#### To what extent is the project able to demonstrate changes against the baseline?

The project is already demonstrating changes against the baseline in all three outputs of the project, including:

- \* Output 1 - improved management of water for agriculture, adoption of CSAs and increasing cropping intensities (CIs);
- \* Output 2 – rainwater harvesting and groundwater recharging increasing

- \* Output 3 – development and dissemination of agro-met advisories to smallholder farmers, also development and use of flood risk monitoring and assessment for use in disaster early warning systems.

The IE found clear evidence of the desired paradigm shift during the field mission, including significant informant farmers are:

- \* aware of the water levels in the tanks and could relate that to the water storage and how to use that for planning the cultivation season;
- \* had the sufficient knowledge to read the rain gauges and make use of them for irrigation operations;
- \* aware of the positive impacts of activities such as home gardens and CSA (including alternative wetting and drying and are able to optimize water use) on food security;
- \* appreciating the benefits of rainwater harvesting and groundwater recharging;
- \* understand the link between on-farm water use efficiency and the weather forecasts and agricultural advisories they can receive via Agrarian Service Centres.

Other informants recounted the benefits of the extremely detailed flood risk modelling and quality of early warning systems developed with project support.

#### How realistic are the risks and assumptions of the project?

The majority of the risks and assumptions were realistically assessed and elements designed into the project to mitigate them (see Annex 20). Two major problems which the project has had to face are risks, one of which could arguably have been avoided – and the other is so beyond anything the world could have anticipated is described as *force majeure*<sup>54</sup>.

Firstly, came the change in the baseline condition for Activity 2.2 (Output 2), which was recognised during Inception. In the period of delay between project approval and the FAA signature, sites budgeted to be used for this project were allocated to other development projects, thus the project was compelled to search for new sources in remaining areas that were in more remote locations where water resources were extremely scarce and more expensive to develop (see Annex 18). These enforced changes were not within the control of the PMU. This is a very difficult situation, which more than 3 years after it was known about remains unresolved (awaiting approval then submission of Restructuring Proposal to GCF). Such a situation cannot be prevented from happening – but all efforts should be made to ensure such long delays between approval and start-up to not recur. Further, national partners should be made more aware of the implications of such a change in the geographical locations of project works.

Secondly, the project design could never have foreseen the risks and threats which the ongoing COVID-19 pandemic could trigger. As described in other sections of this report, the CRIWMP have responded very positively to all the implications (*inter alia* movement restrictions, breakdown of supply chains, import / export restrictions and potential food shortages).

#### **Efficiency**

This integrated water resource management project was designed to support effective rainwater management across the landscapes of three river basins in the Dry Zone, where the impacts of CC are leading to increased frequency of flooding and droughts. The three Outputs support: improved agricultural water management (Output 1); increased drinking water availability (Output 2); strengthening climate and hydrological observing / forecasting systems (Output 3), enhancing awareness of CC and its impacts on water, also increasing resilience, including in disaster risk management. The three inter-related Outputs are synergistic and for example information from Output 3 (agro-met advisories and disaster early warnings) are already not only helping smallholder farmers to plan their cultivation plans (along with their knowledge on water levels in the rehabilitated tanks and adopting CSAs) but have limited loss of life through improved disaster management (e.g. TC Burevi in

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<sup>54</sup> an extraordinary event or circumstance beyond the control of the parties

Dec 2020). The weather advisories are also used to schedule construction activities across Outputs 1 and 2, (e.g. to minimise erosion during VIS upgrading and ensure timely installation of rwh systems).

The IE confirms that there was a clear project strategy, framed around the key *objective to strengthen the resilience of smallholder farmers in the Dry Zone to climate variability and extreme events through an integrated approach to water management*. This is being achieved through the aforementioned Outputs, which build upon previous experience and best practice<sup>55</sup>.

Clarity of baselines indicators for performance measurements, their use in project management and how project applies adaptive management

The project results framework provides clear targets, with most baselines zero, which is correct as the measures are for the numbers of people benefiting from awareness raising / training / improved drinking water supplies / access to agro-met advisories / disaster early warnings, also the extent (in ha) of minor irrigation under targeted cascades with increased cropping intensity (CI>1.6)<sup>56</sup>.

The project is monitoring the RF annually and reporting this in the APRs, which then feeds into the subsequent year's Annual Workplan.

The project has notably applied adaptive management for two reasons:

- \* Changes to the number of beneficiaries (subject to GCF approval via the Restructuring Request) and Activities in Output 2, due to the changes in the baseline conditions which were not within the control by the PMU. [The PMU, RTAs, EE and others have worked very hard since 2017 to overcome the problem but have faced up to the issue through the formal Restructuring Request to GCF – see Annex 16.]
- \* All the changes enforced due to COVID-19 pandemic in 2020, including moving to virtual meetings, changing the scheduling of many project activities (particularly training), refocusing on food security as food supply chains were at risk (see Annex 21).

#### 4.4 Progress Towards Results

Table 10 provides an analysis of the progress which has been made between project start-up (June 2017) and the IE (using figures confirmed by the PMU including Q1, 2021). Annex 19 provides more detail on this information, including progress each year and progress in each of the project districts. This shows some very large differences in progress between the districts, indeed no activity in some districts. The IE understands that this is because in the early years the project adopted a phased approach. Overall, progress in the early years of the project have been slow as most activities started with a scientific study to validate approaches.

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<sup>55</sup> The ToC is reviewed in Section 4.1

<sup>56</sup> Inception Workshop report notes this symbol should be > (greater than) and is a typing mistake int eh FP, so corrected here

**Table 10: Progress towards Outcome and Outputs Analysis**

<b>Project Strategy</b>	<b>Indicator</b>	<b>Baseline Level</b>	<b>Level in 1<sup>st</sup> PIR (self-reported)</b>	<b>Midterm Target</b>	<b>End-of-project Target</b>	<b>Midterm Level</b>	<b>Achievement Rating<sup>57</sup></b>	<b>Justification for Rating</b>
<b>SDG indicators</b>	Output 1.4: Scaled up action on climate change adaptation and mitigation cross sectors which is funded and implemented.	0		-	-	n/a	n/a	n/a
<b>UNDP Strategic Plan Indicators</b>	1. # direct project beneficiaries.	-		-	-	n/a	n/a	n/a

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<sup>57</sup> Compared to end of project targets (as specified in the IE ToR)

Project Strategy	Indicator	Baseline Level	Level in 1 <sup>st</sup> PIR (self-reported)	Midterm Target	End-of-project Target	Midterm Level	Achievement Rating <sup>57</sup>	Justification for Rating
<b>Fund Level Impact: A 1.0 Increased resilience and enhanced livelihoods of the most vulnerable people, communities, and regions</b>	Total number of direct and indirect beneficiaries (% of whom is female)	0		-	1,950,374 (51% of whom is female)  9.6% of the total population of Sri Lanka  770,500 (51% of whom is female) (direct)  1,179,874 of (51% of whom is female) (indirect)	520,502 (51% 265,456 are women)	<b>On target to be achieved.</b>	68% of end of project target direct beneficiaries achieved
	Indicator 1.2 Number of males and females benefiting from the adoption of diversified, climate resilient livelihood options			-	520,000 of which 265,200 are women	459,204 (of which 234,194 women (= 51% women)	<b>On target to be achieved</b>	88% of end of project target achieved d

Project Strategy	Indicator	Baseline Level	Level in 1 <sup>st</sup> PIR (self-reported)	Midterm Target	End-of-project Target	Midterm Level	Achievement Rating <sup>57</sup>	Justification for Rating
<b>Fund Level Impact: A 2.0 Increased resilience of health and well-being, and food and water security</b>	Indicator 2.3: Number of males and females with year-round access to reliable and safe water supply despite climate shocks and stresses.	0		-	517,800 of which 264,078 are women	82,277	<b>Not on target to be achieved</b>	16% of end of project target achieved
<b>Outcome: A7.0 Strengthened adaptive capacity and reduced exposure to climate risks</b>	7.1: Extent to which vulnerable households, communities and businesses use improved strategies and activities to respond to climate variability and climate change	0		422,664	770,500 of which 392,955 are women	459,204 (234,194 women = 51%)	<b>On target to be achieved</b>	60% of end of project target achieved  Restructuring Proposal to increase this indicator to 775,172

Project Strategy	Indicator	Baseline Level	Level in 1 <sup>st</sup> PIR (self-reported)	Midterm Target	End-of-project Target	Midterm Level	Achievement Rating <sup>57</sup>	Justification for Rating
<b>7.1 Extent to which vulnerable HH, communities and businesses use improved strategies and activities to respond to climate variability and climate change</b>								
<b>Output 1: Upgrading and enhancing resilience of village irrigation systems and scaling up climate-resilient farming practices</b>	Extent of minor irrigation under targeted cascades with increased cropping intensity (CI > 1.6)	0		8,875 ha	9,750 ha	4,413 ha	<b>On target to be achieved</b>	45% of end of project target achieved, although does not reach mid-term target, which IE finds over optimistically high so judged on target

Project Strategy	Indicator	Baseline Level	Level in 1 <sup>st</sup> PIR (self-reported)	Midterm Target	End-of-project Target	Midterm Level	Achievement Rating <sup>57</sup>	Justification for Rating
<b>in three river basins of the Dry Zone</b>	Number of male and female farmers reached through dissemination of climate resilient agriculture technology packages	CSA packages are currently not being disseminated		416,000 of which 212,160 are women	520,000 of which 265,200 are women	459,204 (234,194 women = 51%)	<b>On target to be achieved</b>	88% of end of project target achieved
	No of women farmers implementing climate resilient agriculture technologies and practices	0		13,209	16,677	17,893	<b>Achieved</b>	107% of end of project target achieved
<b>Output 2: Enhancing climate resilient, decentralized water supply and</b>	Number of households with year-round access to reliable and safe water supply	0		130,200	217,000 of which 72,300 are based outside river basins	31,848	<b>Not on target to be achieved</b>	15% of end of project target achieved

Project Strategy	Indicator	Baseline Level	Level in 1 <sup>st</sup> PIR (self-reported)	Midterm Target	End-of-project Target	Midterm Level	Achievement Rating <sup>57</sup>	Justification for Rating
<b>management solutions to provide year-round access to safe drinking water to vulnerable communities</b>	Number of women engaged in managing and maintaining community drinking water supply schemes	<1,000		>10,000	>20,000	1,929	<b>Not on target to be achieved</b>	10% of end of project target achieved This number is low as project have not been able to implement the agreed trainings in field due to COVID-19 restrictions and GOSL fund limitations from 2019 to present.

Project Strategy	Indicator	Baseline Level	Level in 1 <sup>st</sup> PIR (self-reported)	Midterm Target	End-of-project Target	Midterm Level	Achievement Rating <sup>57</sup>	Justification for Rating
<b>Output 3: Strengthening climate and hydrological observing and forecasting system to enhance water management and adaptive capacity of smallholder farmers to droughts and floods</b>	Number of female and male farmers reached through seasonal forecast for agriculture planning	0		156,000 of which 79,560 are women	520,000 of which 265,200 are women	459,204 (234,194 women = 51%)	<b>On target to be achieved</b>	88% of end of project target achieved
	Number of female and male farmers receiving advisories for water management	0		133,650 of which 68,161 are women	445,500 of which 227,205 are women	100,395 (51,201 women = 51%)	<b>Not on target to be achieved</b>	23% of end of project target achieved (but 75% mid-term target achieved)

#### Indicator Assessment Key

Green= Achieved	Yellow= On target to be achieved	Red= Not on target to be achieved
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### Remaining barriers to achieving the project objective

Table 10 shows that three Output indicators are **not** on target to be achieved by the end of the project:

Output 2: Number of households with year-round access to reliable and safe water supply - 15% achieved; Number of women engaged in managing and maintaining community drinking water supply schemes – 10% achieved

The barrier to achieving the Output 2 indicator 1 is judged to be the problem affecting progress in Output 2, which the PMU and UNDP (CO and Regional Office) are addressing and awaiting GoSL approval to submit the final Restructuring Proposal to the GCF (see Annex 18 for details). Indicator 2 is reported to the IE to be that the project has not been able to implement the agreed trainings in the field due to COVID-19 restrictions, also GOSL limitations from 2019 to present.

Output 3: Number of female and male farmers receiving advisories for water management – 23% achieved

The IE consider that work to achieve this Output indicator has required a huge amount of scientific work early in the project to develop the system (including developing the geographical information system (GIS) from mapping including data collected by drones, also household level ground surveys; upgrading the hydrological and meteorological monitoring systems; and computer modelling. One hundred and twenty-six flood prone GN division preparedness plans have been completed, with systems now in place to get weather forecast to local areas and Standard Operating Procedures (SOPs) prepared for floods and droughts. The project has made huge progress, putting this infrastructure in place and training staff of Disaster Management Center, DRC, Department of Irrigation, District and GN Divisions, also village disaster management committees established, systems which were tested in response to Tropical Cyclone Burevi in Dec 2020 and proved highly effective (“*saved lives*”). Consequently, scaling up dissemination of the advisories to reach the target number of beneficiaries should be possible by June 2024.

### Aspects of the project that have already been successful

**Output 1:** Addressing not only the urgent need to rehabilitate individual tanks in the Dry Zone’s historic agricultural water management systems but including activating selected entire cascades within the project’s three river basins, adopting a bottom-up approach, including ensuring FOs and village communities have the knowledge for O&M of tanks and VISs, is mainstreaming vital sustainability<sup>58</sup>. (These will be supported financially by mandatory hh contributions.) Cascade water resource development and management planning processes are progressing as per guidelines prepared by the project in 2018, which involves establishing 7 sub-plans. A mathematical model for water allocation within a cascade, which was developed in 2019, was calibrated in 1 cascade initially. Participatory rural appraisals were conducted in five new cascades in 2020 (in addition to the three in 2019) using Participatory Climate Risk, Vulnerability and Capacity Assessment (PCR-VCA) tools adopted by the project in 2018. Furthermore, a cascade rehabilitation and prioritization guideline were developed in 2019 in partnership with the International Water Management Institute (IWMI). The guideline was reviewed and re-worked in 2020 to reflect the cascade selection criteria for rehabilitation. The project has upgraded 131 VISs in which command areas were fully cultivated expanding the CSA programme. Accordingly, the project implemented a series of activities in order to improve the CI of the downstream command areas of 223 VISs including (a) VIS rehabilitation for improving the water storage capacity from 8% to 10%, (b) facilitation of weather informed cultivation planning and water management decision making at the cultivation meetings, (c) more efficient demand driven water management, (d) cultivation of an additional season in between the two main cultivation seasons based on agrometeorological advisories, (e) cultivation of short duration varieties, (f) cultivation of less water consuming other field crops (OFCs) in downstream command areas and (g) adopting suitable

<sup>58</sup> Verified as far as possible in the short field mission by the NC in the IE, also confirmed by CSO staff.

agronomic practices etc. The climate smart agriculture technologies to reduce smallholder farmers' risks in growing not only irrigated but also other field crops (OFCs) are also proving successful and very well accepted by smallholder farmers (women and men).

Climate smart home gardens were established according to a model agreed by stakeholders and farmers to increase the climate resilience, increase the productivity and reduce greenhouses gas emission. They are characterized with ecological farming techniques, alternative pest and diseases control measures, soil erosion control measures, soil moisture conservation measures and micro irrigation techniques, biogas units, ground water harvesting units, bee keeping units, animal husbandry units etc.

**Output 2:** After initially not being well perceived by the communities and health authorities, installation of household<sup>59</sup> rainwater harvesting systems (rwh) in hilly locations where there is no power available to pump groundwater, also where there are no rivers / lakes to provide improved quality water for drinking and cooking is proving extremely popular among beneficiaries. Following a detailed perception survey and testing of aspects of the proposed systems (technology / tank size / water quality), beneficiary selection for rwh systems was done through the established selection process to target the most vulnerable hhs. In parallel, training programs conducted for the rwh beneficiary hhs. By the end of 2020, 3,112 rwh systems had been installed.

The ToT programmes on integrating climate risks and adaptive options for drinking water, preparation of climate resilient water safety and security plans, and building awareness on operations and maintenance of rwh systems were completed in 2020.

A ground water recharge program began in 2020 in Kurunegala District using the awareness program and a field visit to the ground water recharging model demonstration unit at Ground Water Section (North Western Provincial Office), NWSDB, Wariyapola, Kurunegala. There is an especially designed ground water recharging activity in Weerabandiyawa, Galgamuwa (Kurunegala District). This is also linked with the project's rainwater harvesting (rwh) activities. This has already succeeded for 20 households and it is planned to extend to another 50 housing units in the same village. Apart from this, in all the districts, ground water recharging is a by-product from ecological home gardening, chena land conversion to perennial crops, and development of VIS programmes. Specifically, the forest tank renovation directly recharges the ground water. Every upstream development with silt traps, soil bunds, and water puddles have also increased the ground water levels in catchment areas and it helps to maintain the tree girdles. The soil bunds of the home gardens are also supported for ground water recharging. The project has introduced ground water recharging concept in all new CWSS and AFSs implemented, as a climate resilient activity.

Participatory monitoring committees are being established for the new community-managed water supply schemes (CWSS). These monitoring committees meet regularly and participated in meetings with other partners to discuss physical progress, site issues, grievances and community requests. In 2020, a total of 843 individuals participated for these monitoring activities. (566 male and 287 female).

Capacity building and technical trainings are being conducted for the monitoring committees and selected potential staff of the CBOs in new CWSS. Capacity building and training programmes were also conducted to RPs and relevant stakeholders; NWSDB, DNCWS, Divisional Officers and CSO staff.

Problems over finding suitable new water sources led the GoSL through NWSDB to investigate 102 alternative locations for acceptable water sources within the target districts, of which only 16 were considered to possess acceptable levels of water quantity and quality to serve the communities that are otherwise deprived of safe drinking water. This not only meant larger investments in source investigations, but also associated increase in the pipeline length and size, pumping capacity and additional treatment measures, all adding to the higher unit costs of the intervention. Table 11 outlines the changes in the numbers of CWSSs and water treatment and purification systems from the FP to the

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<sup>59</sup> 5,000m<sup>3</sup> capacity

Restructuring Proposal. The advanced filtering systems for schools/hospitals (small AFS) and RWH systems remains same as in the original proposal.

**Table 11: Changes under Activity 2.2 from Funding Proposal to the Restructuring Proposal**

Project inputs	Original (As per the approved FP)	Proposed after restructuring
2.2.1	Design and implement 35 climate-resilient community water supply schemes	Design and implement 7 climate-resilient community water supply schemes
2.2.2	Install 125 water treatment and purification systems to existing drinking water intakes to ensure quality and safety	Install 86 water treatment and purification systems to existing drinking water intakes to ensure quality and safety
2.2.3	Construct 4,000 household rainwater harvesting units of 5000 litres for women-headed or disability or chronic disease-affected households	This input remains as is with the original FP
2.2.4	Enhance water quality monitoring and source protection through source protection committees, incorporating CC risks and impacts	This input remains as is with the original FP

**Output 3:** The project is supporting continuing capacity building activities of Department of Meteorology (DoM). A real-time online data monitoring system (video wall, workstations and accessories) was provided to the National Meteorological Centre of the DoM in order to support forecasters to combine and compare different meteorological parameters which are important to develop forecasting products. However, due to COVID-19 related travel restrictions, overseas trainings on Seasonal Weather Forecasting and Agro-ecological zone-based weather forecast could not be conducted in 2020, which will be implemented in 2021.

A weather data portal was developed on the web GIS portal provided by the project in 2019. This portal provides a central platform to access meteorological observations, weather forecasts and products (e.g. Agromet bulletin, drought bulletin and climatological data) available in the DoM to the stakeholder agencies, researchers and students and general public. This portal was connected to a mobile app, which was developed to disseminate the 10-day weather forecast for the local community. However, due to limitations of the server capacity in the DoM, this programme could not be launched during 2020.

Installation of water level sensors started in 2020 with the hydrology and water management divisions of the Department of Irrigation (DoI). Locations for 15 water level sensors have been screened and selected in Mi Oya and Malwathu Oya basins which will contribute both flood and water management activities of the Department.

In 2020, 150 manual rain gauges were installed in identified project cascades as well as in CWSSs. These rain gauges were installed in the command areas of the 16 project cascades. Water users, mostly farmers are involved in data collection and recording. Data recording books were provided, and farmers were trained on record keeping and use of rainfall data for cultivation decision making such as adjusting irrigation interval as per the rainfall of the cascades.

Flow measuring gauges are being installed in main canals of the downstream of upgraded cascades. Rating curves are then being developed to measure the water discharge using the readings of flow measuring curves, which will help farmers to measure the water release as per the water rotation plan of the tank.

A key extreme event experienced during 2020 was cyclone 'Burevi', which made a direct landfall during the first week of December 2020. The cyclone track fell over the Eastern, and Northern provinces of Sri Lanka. DoM issued series of early warnings for this purpose and informed that the GIS trainings

provided in 2019 and automated meteorological network established by the project were useful in generating early warning and monitoring of the cyclone impact. Project also supported the cyclone preparedness and response activities via facilitating online meetings, dissemination of advisories and supporting district officials for tank water management in the high-risk tanks.

A comprehensive assessment on weather / agro-met advisory dissemination, which started in 2019 was completed during 2020. This assessment identified that less than 30% of the ASCs have access to the weather/ agro-met advisories in the project districts. Several gaps and bottlenecks prevailing in information generation, dissemination and application of the advisories has been identified through the assessment and recommended to establish an ICT based coordinated advisory dissemination system which will ensure institutionalization and integration as well as last mile communication. This proposal was presented to the national and district stakeholder agencies and consent was obtained to develop the system (expected in 2021).

Flood risk assessment which the project started in 2019 continues in 3 river basins. Total number of hhs surveyed during 2020 is 59,828 which falls under 164 Grama Niladhari (GN) divisions in 21 Divisional Secretariat (DS) divisions. In Anuradhapura, Trincomalee, Puttalam and Kurunegala districts, 185 National Disaster Relief Services Centre (NDRSC) officers and GN level officers were trained on hh data collection and mapping.

Flood modelling activities in Mi Oya basin started with engineering surveys conducted by the Sabaragamuwa University. This survey collected cross sections and bathymetry data required to develop a Digital Elevation Model (DEM for flood modelling). 80% of the survey has been completed. At the same time, flood modelling work started with the support of Engineering Design Centre of the University of Peradeniya. This model has a real-time flood forecast incorporated with reservoir operations for the entire basin which will minimize the flood impacts, while maintaining the reservoirs water levels at the optimum capacity. This model comprises of hydrological model, reservoir operation model, hydraulic model and real time simulation using open source HEC software. Modelling work will be completed by the 3rd quarter of 2021

To start the Divisional disaster preparedness and response planning process in 21 flood affected DS divisions surveyed in 2020, two-day training programme on GIS for flood risk assessment and preparedness was conducted to 56 District and Divisional level officers from Disaster Management Centre (DMC), NDRSC, Irrigation Department and Planning officers in the DS offices. This training will help the officers to incorporate flood risk data into regular flood preparedness and response measures as well as regular development activities of the vulnerable communities.

In 2020, the project supported DMC and district stakeholders to implement COVID-19 Responsive Disaster Preparedness and Response activities in 25 flood affected DS divisions.

As part of the comprehensive assessment conducted on weather/agro-met advisories, SOPs were developed for District/Divisional level to respond to agricultural and water management advisories. Roles and responsibilities of the agencies identified and considered in designing the ICT based agro-met advisory dissemination system, which will be established in 2021 by the project.

The Department of Irrigation extensively uses the real time water levels and rainfall data of the Automatic Water Level Recorders (AWLRs) installed by the project in Yan Oya and Malwathu Oya basins for flood and water management purposes. Flood affected communities in the downstream areas of these 45-flood affected GN Divisions comes under 9 DS Divisions and farmers in major and medium irrigation schemes (4 major schemes and 2 medium schemes) in the area are primarily benefited by this intervention.

**Training:** Across all three Outputs of the project, it is making huge investment in building capacity of stakeholder agencies and communities by awareness raising, training and training of trainers (ToT) to have lasting impacts on all aspects of irrigation, climate smart agriculture, provision of safe drinking water, availability of tailored agro-met advisories and disaster preparedness in the face of CC. The

University of Colombo and the Institute for Participatory Interaction for Development (IPID) catalysed a comprehensive training needs assessment at levels from national to the beneficiaries, producing 2 reports, on:

- \* Lot 1 - Irrigation and Water Management (2019);
- \* Lot 2: General Awareness, Climate/Weather Information and Climate Smart Agriculture (2019).
- \* LOT 3 Drinking Water (2019)

This was followed by a series of validation workshops, thence development of 16 training manuals (12 by University of Colombo, 4 by IPID) covering the full range of project-related topics related to above 3 categories. The project has identified the trainers in the project districts including the staff of stakeholder agencies and conducted a series of ToT and training programmes since 2020 to build a pool of district trainers on climate resilient integrated water management and CSA at the district and local levels.

## 4.5 Project Implementation<sup>60</sup>

### Management Arrangements

#### Effectiveness of project management

Based on review of project documents and informants to the IE, the project management arrangements are generally working effectively, with good leadership being provided by the Project Director, Project Deputy Director, Project Manager and the wider PMU team, which includes both GoSL (EE) and UNDP (AE) staff. There is good co-operation between the GoSL and UNDP staff and IE informants report they are "*very flexible and efficient*". However, one of the main positions of the project management is Project Director. During the last 3.5 years, it has been changed five times. This is not conducive to continuity of project oversight and has negatively impacted on the project achievements.

An example of sound management was initial staff recruitment. The recruitment process for the PMU began in March 2017, anticipating the FAA signature and to avoid delays in implementation, thus a total of 23 staff<sup>61</sup> had been recruited by Nov 2017. In order to keep the project management costs within budgetary provisions, the recruitment of the Technical Officer, two Finance Assistants, two Office Aides and driver was kept on-hold. It was also agreed at the IW to review the staff positions after the first year of implementation to maximize the efficiency and the cost effectiveness of the project implementation process.

The FP and ProDoc both highlight the range of important roles which the Project Board (PB) plays in project implementation. However, for the CRIWMP the infrequent PB meetings has been an issue raised by informants to the IE. Only 5 PBs have taken place since July 2017, yet the ProDoc states they should take place "*at minimum twice annually*", confirmed in the FP. Informants to the IE felt the PB (known also as the Steering Committee) do not meet or communicate frequently enough for effective project oversight and guidance. Particularly as this is an innovative inter-sectoral project, more frequent meetings would enhance mutual understanding between the sectors. Furthermore, the reports to the IE showed that the sub-committee on project implementation, Additional Secretary to the MoI, PD, and UNDP, have not conducted their meetings regularly, with significant negative impacts on the quality of the implemented activities. The IE team have been informed that ad-hoc meetings have also been convened as and when required, for example to discuss the co-financing issue and also Outputs 2 – and records of 2 meetings on Output 2 have been seen (dated 13/12/17 and 26/11/18).

The IE has been informed that at sub-national levels, a wide range of committees were successfully providing oversight and guidance for project implementation, including provincial, district and

<sup>60</sup> Adaptive Management already in Section 4.3 (Efficiency), so not repeated here.

<sup>61</sup> Project Director, Deputy Project Director, Project Accountant, Environment & Social Safeguard Specialist, Monitoring & Evaluation Specialist, Senior Project Engineer, Communication Specialist, Financial Management Assistant, Project Secretary, 6 x Field Coordinators, 2 x Technical Officers, 3 x Management Assistants, Procurement Specialist, Procurement Associate (UNDP support to the Project) , Finance Assistant (UNDP support to the Project)

divisional levels (although these have not operated well due to COVID-19). The project's Deputy Director (DPD) then shares any concern raised/discussed at the sub regional coordination meetings. Furthermore, provincial departments such as agriculture and irrigation usually participate in the PB meetings.

Generally, responsibilities and reporting lines appear clear – notably how the CSOs report their activities with beneficiaries.

#### Quality of execution

As far as can be determined in this rapid IE, the quality of execution of work by the EE and RPs has reached the level which was expected in the FP & ProDoc, particularly commendable in the context of the constraints of the problems with water sources for Output 2 and the COVID-19 pandemic.

#### Quality of support provided by UNDP

Informants to the IE concurred that the support provided by UNDP to this project has been great and vital, providing continuity when external factors (change in baseline conditions, presidential and national elections, terrorism, tropical cyclones, changes in the EE and a RP, problems with the flow of funds and COVID-19) have affected the country. UNDP provide vital assistance to the EE in complex procurement and also supported the project through 2020 when the GoSL did not have an approved budget for execution support.

#### **Work planning**

##### Review of delays in project start-up and implementation.

##### 2016-2017 and to the present

There was a 12-month delay between the date when the project was approved (30 June 2016 and the FAA became effective (28 June 2017). This has had serious impacts on the project, involving Output 2 (Activity 2.2) as during that interval the RPs (Ministry of Water Supply and the DNCWS) allotted the water sources that had been identified for this project to other development projects that were ready for commencement (as "*the people needed water*"<sup>62</sup>). The change in the baseline condition (which was known about at the time of inception<sup>63</sup>) influenced the overall costing of the CWSSs, leading to changes in the Output and a reduction in the number of beneficiaries. The EE, RPs and PMU have made great efforts to develop alternative water supply systems to honour promises made during the project design but the issue remains unresolved and is subject of an ongoing Restructuring Proposal to GCF. The issue is belatedly reported in the project risk log, covering Jan 2019 to Dec 2021 and is rated moderately likely – which the IE view to be an underestimate of the impacts to the Output and the wider project.

##### April 2019

IS suicide attacks and bomb blasts in residential areas and public places, which led to the whole country begin crippled thus delayed planned project activities, rated highly likely in the risk project log.

##### Late 2019 - Jan 2021

Rapid changes in the political context of the country from late 2019 until the end of third quarter 2020 combined with COVID-19 pandemic posed a challenge to project implementation. Following the Presidential election in November 2019, the Parliament was dissolved in March 2020 and a caretaker Cabinet was appointed. This was followed by a nation-wide lockdown in response to COVID-19 pandemic which lasted for nearly two months and the Parliamentary elections was held in August 2020. The risk from political instability was duly recorded in the Risk Log of the project covering Oct to Dec 2018, then Jan to Dec 2019 – with moderate likelihood.

COVID-19 had significant impacts on the project implementation from March 2020 (risk log noted highly likely form 16 March to 31 May). Wave 2 of COVID-19 then exacerbated the situation (risk log highly

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<sup>62</sup> Quote to the IE.

<sup>63</sup> Although not mentioned in the Inception Workshop Report (2017), a quote from the Restructuring Proposal states "*As a result, the IP, at the time of inception, was compelled to search for new sources in remaining areas that were in more remote locations where water resources were extremely scarce.*"

likely from 1 August 2020 to 31 Jan 2021). This clearly was a “*force majeure*”, which has had a range of impacts on all the Outputs and Activities of the project, including:

- \* Two-month lockdown from March 2020;
- \* Restrictions on travel and community gatherings – thus many of the project ToT / field / practical / overseas trainings (all Outputs) are now rescheduled to be conducted in 2021-22;
- \* Potential food shortages forecast by GoSL owing to COVID-19 import restrictions, risking food security;
- \* Lockdowns effects on functioning of agricultural value chains;
- \* COVID-19, affected the social mobilization activities in new sites;
- \* Import restrictions due to lack of foreign currency affecting supply of materials for construction (filtration and piping);
- \* Government’s new policies on import restrictions, due to debt burden and US Dollar shortage, affecting the importation of the sensors (Output 3) and construction materials (Outputs 1 and 2).

However, the project has responded and adapted very appropriately to the crisis, and now all project activities which can proceed are following the national health guidelines for COVID-19 issued by the Ministry of Health, also those of UNDP, notably:

- \* Project adopted Information Communication Technologies (ICT) to all its operations to ensure continuity, mobilising UNDP core resources to build the required IT capacity of the project partners (Zoom licenses and video conference equipment) to enable them to continue the activities under the approved Work Plan. This helped to achieve a substantial portion of the annual work plan. The activities were supported by the electronic mode operations included procurement, contract award, regular progress monitoring, community and stakeholder consultation, awareness building, information sharing, and training.
- \* Existing decentralized implementation modality of the Project which includes Civil Society Organizations (CSOs), Community Based Organizations (CBOs), local government agencies and local-level service providers was proven effective. Therefore, Project strengthened the decentralized implementation modality to continue business amidst COVID19;
- \* Local level value chains established by the Project, especially farmers’ markets proved to be effective;
- \* Responding to the livelihood and food insecurity, the CSA work programme was tailor-made targeting the urban poor and also in line with national food security enhancement programme, which enabled the project to mobilize the support of the government machinery to reach more beneficiaries during the reporting year;
- \* During the lockdown period, community-driven activities were prioritized with the aim of minimizing the impact on project implementation as much as possible. For example, 293,895 perennial plants were planted through community-based interventions covering 690 Ha in VIS catchment areas that were less affected by movement restrictions imposed across districts as a result of the enforcement of COVID-19 protocols.
- \* The rural home gardens development programme contributed to ensuring food security of 1,167 vulnerable families during the COVID-19 pandemic by saving 40% of the annual vegetable cost equivalent to LKR 40,008,000 (USD 216,259). Responding to the COVID-19 pandemic, the project expanded the home gardens programme targeting urban and suburban poor families with the establishment of an additional 2,600 home gardens.
- \* The project took several alternative measures to support 2020 Yala season, due to COVID-19 and subsequent food import restrictions imposed by the government. During 2020 Yala season, DoM forecasted an above-normal rainfall and Agro-met advisory (Output 3) issued by the Department of Agriculture (DOA) encouraged farmers to shift to OFCs to meet the food security requirements of the country. Majority of the farmers adhered to these advisories despite some of the challenges, such as lack of planting materials. The Project facilitated this process by organizing online meetings between national and district levels, facilitating dissemination of advisories and support services. More than 200 officers connected via e-mail groups (mainly

Agriculture/Agrarian/ Irrigation and Disaster Management officers and some private sector companies) to share the regular seasonal / monthly and weekly forecasts. Project also initiated a monthly online briefing session with the support of DoM and NRMC for officers to support the cultivation plans of the districts. This initiative was successfully moved forward and became a regular programme and continued until the end of 2020. Finally, this Yala season was considered as one of the most successful production seasons after 7 years. This has also helped to change the attitude of some farmers who were reluctant to shift to OFC from paddy based on advisories.

- \* Project supported DMC and district stakeholders to implement COVID-19 Responsive Disaster Preparedness and Response activities in 25 flood affected DS divisions. An operational guideline on COVID-19 responsive camp management was developed in consultation of the Department of Health, DMC and NDRSC. This guideline was converted to a pamphlet and printed in local languages. 25,000 copies were shared among project districts and flood vulnerable DS divisions upon a request of the DMC. This pamphlet was especially useful for cyclone, flood and other disaster response activities conducted in the district during 2020.
- \* PMU gave no cost extensions for civil work contractors, community works and consultancies.

#### May 2020-present

Informants to the IE report some delays in implementation of project activities for activities identified for 2021 due to lack of funding, following the GCF only partially releasing the 4<sup>th</sup> Tranche of grant funding to the project (\$1.8 million - \$9,594,023 due in August 2020). This is inextricably linked to the issues about Output 2, also the change in EE and an RP – which are subject to the ongoing Restructuring Proposal to the GCF.

The IE confirms that project work planning is results based, with regular reporting at all levels (apart from the PB) to ensure the project remains on track as per the annual and other workplans.

The Results Framework (RF) has not been changed since project approval. However, if the Restructuring Proposal is approved by the GCF, this will trigger certain changes in the RF, which will have to be discussed and adopted by the Project Board. This should be reflected by a change from 217,000 to 122,715 beneficiaries for Output 2 as detailed in the Restructuring Proposal).

As the IE is concluding, regrettably a third wave of COVID-19 is emerging in Sri Lanka.

#### **Finance and Co-finance**

The total project budget is USD 52,084,000, comprising the GCF grant of USD 38,084,000 and GoSL co-financing of USD 14,000,000.

#### GCF Grant Finance

The FP shows the breakdown of cost estimates analysed by Output and Activity; this is presented in Table 12. [Note, this table does not differentiate project management costs.]

**Table 12: Breakdown of Cost Estimates by Output and Activity<sup>64</sup>**

Output	Activity	Financing (MUS\$)		Total Cost per output	
		GCF	Co-finance	Foreign Currency (MUS\$)	Local Currency (LKR)
1. Upgrading and enhancing resilience of village irrigation systems and scaling up	1.1 Improve technical capacity and knowledge management targeting ASCs, local field officials and community organizations for	0.695	1.000	30.296	4,372,599,983

<sup>64</sup> Source: GCF Funding Proposal

climate-resilient farming practices in three river basins of the Dry Zone	water management and climate-smart agriculture				
	1.2 Improve and upgrade village irrigation systems in the identified cascades including restoration of upstream watershed	18.988	5.000		
	1.3 Develop and disseminate climate resilient agricultural practices	3.473	1.140		
2. Enhancing climate resilient, decentralized water supply and management solutions to provide year-round access to safe drinking water to vulnerable communities	2.1 Improve capacity of water-supply support staff at district/divisions, selected partner organizations (NGOs) and CBOs to implement and maintain community-based drinking water related interventions	0.436	1.500	17.013	2,457,860,667
	2.2 Implement sustainable drinking water solutions through CBOs in coordination with the ASCs and National Water Supply and Drainage Board (NWSDB)	10.467	4.610		
3. Strengthening climate and hydrological observing and forecasting system to enhance water management and adaptive capacity of smallholder farmers to droughts and floods	3.1 Establish effective monitoring systems for drought, floods and water management	1.006	0.350	4.775	690,989,739
	3.2 Co-develop and disseminate weather- and climate-based advisories for agricultural and water management through ASCs and FOs to farmers and village water managers	1.932	0.250		
	3.3 Develop response measures to advisories and forecasts for agriculture, water management and flooding in cascade systems	1.087	0.150		
<b>Total Financing</b>		<b>38.084</b>	<b>14.000</b>	<b>52.084</b>	<b>7,521,450,389</b>

The planned flow of the project funds is shown in Table 13.

**Table 13: Summary of Planned CRIWMP Funding<sup>65</sup>**

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Total
<b>GCF</b>	2,867,879	8,287,745	9,264,383	9,594,023	4,431,338	2,363,850	1,274,783	38,084,000
<b>GoSL</b>	1,357,500	2,182,500	2,416,000	2,543,000	2,355,000	1,726,000	1,420,000	14,000,000
<b>Total</b>	4,225,379	10,470,245	11,680,383	12,137,023	6,786,338	4,089,850	2,694,783	52,084,000

<sup>65</sup> Source: ProDoc

Table 14 shows the actual flow of GCF funds from project start-up to the IE. The project started mid-year, thus expenditure in 2017 was low (as planned). Year 2 (2018) saw activities starting-up and more of the grant was expended, but this amounted to only 29% of the GCF grant. In 2019, the increased level of project activities is reflected in the increase in expenditure, but this was still only 72% of the grant. As shown in Table 13, tranche 4 of the GCF grant (\$9,594,023) was withheld in 2020. The IE team were informed that this was due to the restructuring issue, also the change in the EE and one of the RPs. The team also consider it may have been due to the underspend over the previous years. Referring to the Total Budget and Work Plan in the ProDoc, the project expected to spend the full GCF grant in 2020, but the actual spending was \$5,025,540.56 (52%), due to the hiatus of COVID-19 and the enforced suspension of all new activities, due to the “*non-realization of the fourth tranche*” from the GCF.

**Table 14: Flow of GCF Funds in the CRIWMP (to IE)**

Year	GCF Grant Received	GCF Cumulative	Grant Expenditure	Cumulative Disbursement
2017	USD 2,867,879.00	USD 2,867,879.00	USD 425,330.58	USD 425,330.58
2018	USD 8,287,745.00	USD 11,155,624.00	USD 2,414,974.09	USD 2,840,304.67
2019	USD 9,264,383.00	USD 20,420,007.00	USD 6,758,463.36	USD 9,598,768.03
2020	USD 0.00	USD 20,420,007.00	USD 5,025,540.56	USD 14,624,308.59
2021	USD 1,809,004.00	USD 22,229,011.00	USD 1,164,366.36	USD 15,788,674.95
	<b>Commitment (Purchase Orders)</b>		USD 4,834,901.74	
	<b>Grant disbursement including Commitment</b>			<b>USD 20,623,576.69</b>
	<b>Balance</b>			<b>USD 1,605,434.31</b>

Table 15 provides a summary of the financial information disaggregated by Output, plus Project Management, comparing figures from the ProDoc and actuals provided to the IE by the PMU (to end 2020).

**Table 15: Summary of Project Financing (GCF) by Output**

**A. Budgeted (USD)**

Output	2017	2018	2019	2020	Total Expenditure
1. Village irrigation systems	1,019,055	5,049,169	5,448,095	5,908,344	17,424,663
2. Drinking water supply	926,556	2,022,402	2,464,920	2,332,663	7,746,541
3. Improved weather forecasting	482,172	779,180	785,430	783,702	2,830,484
Project Management	440,096	436,994	565,939	569,314	2,012,343
<b>Grand Total</b>	<b>2,867,879</b>	<b>8,287,745</b>	<b>9,264,384</b>	<b>9,594,023</b>	<b>30,014,031</b>

**B. Actual (USD)<sup>66</sup>**

Output	2017	2018	2019	2020	Total Expenditure
1. Village irrigation systems	153,108	1,582,268	4,107,809	2,555,735	8,398,921
2. Drinking water supply	129,535	409,239	1,376,937	1,699,446	3,615,157
3. Improved weather forecasting	13,796	97,718	861,141	407,635	1,380,290
Project Management	128,891	325,748	412,576	362,725	1,229,941
<b>Grand Total</b>	<b>425,331</b>	<b>2,414,974</b>	<b>6,758,463</b>	<b>5,025,541</b>	<b>14,624,308</b>

<sup>66</sup> Figures rounded from those provided to the IE

**C. Actual vs Budgeted (%)**

<b>Output</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>Total Expenditure</b>
1. Village irrigation systems	15%	31%	75%	43%	48%
2. Drinking water supply	14%	20%	56%	73%	47%
3. Improved weather forecasting	3%	13%	110%	52%	49%
Project Management	29%	75%	73%	64%	61%
<b>Grand Total</b>	<b>15%</b>	<b>29%</b>	<b>73%</b>	<b>52%</b>	<b>49%</b>

Comparing the budget with the actual spending in Table 14 (C.) highlights that the project has been consistently underspending the GCF grant compared to the budget every project year and across all three Outputs, also in Project Management (actuals over the 4 years 49% of the budget). Notably the spending was only 3% then 13% of the budget in 2017 and 2018 for Output 3. However, spending on Output 3 exceeded the budget (110%) in 2019. The total project expenditure in 2019 reached 73% of the planned level, then in 2020 was only 52%. Expenditure dropped in 2020 due to the extraordinary pandemic situation (as previously described) and also the PMU's concerns over tranche 4 not having been disbursed, which caused them to halt starting any new activities.

There have not been any budget revisions during the project implementation to-date, although if approved by GoSL and GCF) the Restructuring Proposal (Annex 18) will require that this is completed.

Cost-effectiveness of interventions

Despite the low level of project expenditure (61%), based on the Table 10 in Section 4.4 (Progress Towards Results), notwithstanding the problems with Outputs 2 (subject of the Restructuring Proposal – currently only 15% and 10% achieved), two indicators towards Output 1 are on target, while one has already been achieved. One of the indicators for Output 3 is on track to be achieved – while the other is lagging (23%). This demonstrates that the intervention under Outputs 1 and 3 are indeed cost-effectively being implemented as compared to the budget. The issue which overshadows the project is that the baseline for Output 2 changed even before implementation started and since, many efforts have been made to identify alternative sources of safe drinking water for the communities who had been promised this during the project design. The Output 2 problem explains that the indicator for Fund Level Impact: A 2.0 Increased resilience of health and well-being, and food and water security is also not on track to be achieved.

Co-financing

The GoSL agreed to provide \$14 million in co-finance (see Table 16), of which Table 17 shows only \$ 2,154,149 (15.4%) had been mobilised by the end of 2020. (% mobilised by year amounts to respectively: 10.%; 35%; 38%).

**Table 16: CRIWMP Parallel Co-Financing in FP**

<b>Responsible Department</b>	<b>Amount</b>
Department of Agrarian Development (DAD)	USD 6,000,000
Department of Agriculture (DoA)	USD 1,140,000
Department of National Community Water Supply (DNCWS)	USD 2,110,000
National Water Supply and Drainage Board (NWSDB)	USD 4,000,000
Ministry of Disaster Management (MoD)	USD 750,000
<b>Total Co-financing</b>	<b>USD 14,000,000</b>

**Table 17: Co-financing Budgeted vs Mobilised**

GCF Output/ Atlas Activity	Responsible Party (Atlas Implementing Agent)	Fin. Source	2018		2019		2020		2021	2022	2023	Total Budget (USD)	Total Expenditure (USD)
			Budget	Act Expenditure	Budget	Act Expenditure	Budget	Act Expenditure					
<b>Total Output 1</b>	Department of Agrarian Development, Department of Agriculture	GoSL co-financing	<b>1,518,500</b>	<b>115,657</b>	<b>1,232,000</b>	<b>610,095</b>	<b>1,387,000</b>	<b>529,045</b>	<b>1,227,000</b>	<b>909,500</b>	<b>866,000</b>	<b>7,140,000</b>	<b>1,254,797</b>
<b>Total Output 2</b>	Department of National Community Water Supply, National Water Supply & Drainage Board	GoSL co-financing	<b>1,813,500</b>	<b>242,832</b>	<b>1,072,000</b>	<b>206,439</b>	<b>1,038,000</b>	<b>356,884</b>	<b>1,018,000</b>	<b>706,500</b>	<b>462,000</b>	<b>6,110,000</b>	<b>806,155</b>
<b>Total Output 3</b>	Ministry of Disaster Management	GoSL co-financing	<b>208,000</b>	<b>5,394</b>	<b>112,000</b>	<b>16,283</b>	<b>118,000</b>	<b>55,354</b>	<b>110,000</b>	<b>110,000</b>	<b>92,000</b>	<b>750,000</b>	<b>77,031</b>
<b>Total Output 4</b>	Project Management	GoSL co-financing				<b>4,745</b>		<b>11,421</b>					<b>16,166</b>
<b>Total Amount Government co-financing</b>	<b>USD</b>		<b>3,540,000</b>	<b>363,883</b>	<b>2,416,000</b>	<b>837,562</b>	<b>2,543,000</b>	<b>952,704</b>	<b>2,355,000</b>	<b>1,726,000</b>	<b>1,420,000</b>	<b>14,000,000</b>	<b>2,154,149</b>

Analysis of the % co-finance materialised shows that this has ranged from only 3% (Output 3 in 2018) to 50% (Output 1 in 2019). Reviewing the annual totals, they are respectively 10%, 35% and 37% (2018 – 2020). The low realization of project co-financing has been a problem from the outset of the project. As early as the 2017 APR, the PMU reported that *"availability of co-financing funds has been a challenge"* – implying that as the project started mid-year, it was due to the fact that the GoSL annual fiscal cycle *"operates on the basis of calendar years"*.

Although the annual Project Board meetings are the only context in which the project team regularly meet with the co-financing partners in order to align financing priorities and annual work plans. While this is regular, it is not frequently enough to be sufficiently effective. However, the IE understand that there have been a number of meetings between the EE, RPs and with the Ministry of Treasury on co-financing gaps.

COVID-19 has exacerbated the situation, as it has led to a contraction of the fiscal space due to the economic downturn ..... putting at risk some targets of the project – most notably the increase in cropping intensity (CI) beyond the baseline to 1.6 (noted in risk log as highly likely from 31 May 2020 to 31 Dec 2023). Lack of co-finance is impacting the budget allocation in operations and maintenance of the village irrigation systems.

APR 2020 states *"low mobilization of the co-financing resources was a challenge encountered under all the three outputs of the project"*. Further that there were *"delays in disbursing government co-financing and the expected co-financing has not materialized from the Treasury to carry out some of the planned work"*. Also that *"UNDP CO has raised these concerns with the Secretary of the relevant Ministry and other higher officials and additionally taken this up with the External Resources Department"*.

Efforts by the MoI, PMU and UNDP to improve the co-financing situation do give the IE some evidence that there is a greater likelihood that co-financing will indeed materialise from 2021, as the IE has had view of a recent letter from the Secretary of the Ministry of Irrigation to the UNDP Deputy Resident Representative, dated 13 November 2020, confirming that the MoI *"has already requested LKR 500 million (Equivalent to approx. US\$ 2.69 million) as co-financing for Year 2021"*.

Furthermore, in a letter dated 03 May 2021, the Dept of National Planning (MoF) clarified to UNDP CO has stated that *"the Treasury provides allocations to implementing agencies in the annual budget for co-financing only if grant funds are channelled through Treasury"* and the EE have assured the IE that *"The low Mobilization of Co-finance was caused due to non-accounting of total GCF Proceeds received by Accredited Entity to the Government Treasury. Rectification of this issue could be done if future Proceeds are processed as per the mechanism described in FAA as well as the Procedures introduced by Finance Ministry of GOSL."*

#### Financial controls

No informant to the IE expressed any concerns about the project financial controls, which are under the supervision of the Project Accountant, Project Board and also UNDP.

This is an area where the lack of biannual PB meetings limits the extent of financial controls and making timely decisions. For example, the project's 2017/2018 accounts were not presented until the PB held on 7 Jan 2020.

The minutes of the 2020 PB meeting (presentation by the Project Accountant), plus informants to the IE raise a concern that *"the expenditure shown in these accounts reflecting only the expenses incurred by the Project Management Unit of the Ministry"*. The PB minutes further explain that *"UNDP had also performed project activities utilizing GCF funds, therefore, he was not in a position to prepare a Statement of Account for the entire project as UNDP was operating as a separate entity"*.

*"Although UNDP share the summary of expenditure incurred by them to be included in the annual financial progress of the project, without any proper source documents the said expenditure could not be incorporated into the project accounts."*

UNDP believes that this is related to inadequate understanding of role and responsibilities of the accredited entity and EE, also GCF and UNDP rules and regulations rather than a transparency issue, as all relevant details are being shared with the IP on quarterly basis.

The PB Minutes do not record the PB discussing, far less making informed decisions regarding the budget.

IE team have been informed that ad hoc meetings have been held between project and GoSL co-financing departments to try to rectify the issues over low mobilization of co-finance (see details below), which based on the evidence of the letter from MoI dated 13 Nov. 2020 and other verbal assurances received by the IE suggest that the flow of co-finance should improve for the remaining period of the project.

### **Coherence in climate finance delivery with other multilateral entities**

The project has developed some strategic partnerships notably with the University of Colombo, four CSOs and several private companies with commitment and interest in climate finance delivery – most of which will be key to ensuring the sustainability and the scaling-up of the project Outputs post project.

It was reported to the IE that International Fund for Agricultural Development (IFAD) is one of the key beneficiaries of climate information and the agro-met advisories supported by the project. This information (from Output 3) is directly shared with the IFAD team to disseminate to their Smallholder Agribusiness Partnerships Programme beneficiaries. [This is a national programme which aims to sustainably raise the incomes and improve the quality of diet of 57,500 smallholder households by expanding livelihood and business opportunities in the agriculture sector.<sup>67</sup>These beneficiaries should be included as in-direct beneficiaries at the end of the CRIWMP]

The project is also working with other donors which are developing larger future climate finance projects – namely Asian Development Bank and the World Bank, using lessons from the CRIWMP in new proposals. This is demonstrating complementarity between the project and other actors for local other CC interventions.

This project is an example of how the GoSL, supported by this GCF grant, is contributing to the achievement of the ultimate objective of the United Nations Framework Convention on Climate Change (UNFCCC). In the context of sustainable development, the Fund through this project is promoting the paradigm shift towards climate-resilient development pathways by providing support to people in the 3 river basins of CRIWMP in Sri Lanka to adapt to the impacts of climate change, as it is one of the most vulnerable countries to the adverse effects of climate change and the basins in the Dry Zone are some of the most vulnerable areas in the country.

The project is contributing to the GCF goal to pursue a country-driven approach and promote and strengthen engagement at the country level through effective involvement of relevant institutions and stakeholders in this intersectoral project.

### **Project-level monitoring and evaluation systems**

The project monitoring is being undertaken by the EE with technical support from UNDP to expedite implementation. Project-level M&E is being carried-out in compliance with UNDP requirements and to fulfil GCF M&E requirements.

[Notably, GCF monitoring of environmental safeguards are undertaken through daily inspection reports e.g. for erosion, weekly reports e.g. for flora and fauna and bi-monthly reports on management measures of the ESMP, compiled by the PMU and relevant parties. Annual reporting to GCF on ESMP will be done in the Annual Project Report (APR). Recording data and incidents, according to the ESMP, will be critical in maintaining compliance. Daily and weekly environmental inspection checklists are to be completed and MMDE to be notified immediately in case of material or serious harm.]

The project M&E system is straightforward, as the only indicators which the RF requires are:

<sup>67</sup> Source: <https://www.ifad.org/en/web/operations/-/project/2000000929>

- \* numbers of beneficiaries for the various project Activities (disaggregated by gender);
- \* the extent of minor irrigation (ha) under targeted cascades with increased cropping intensity (CI > 1.6)<sup>68</sup>.

Information provided to the IE, which has been verified by the CSOs, sub-national officers and field evidence, many stakeholders and the CSOs prepare and submit monthly or quarterly data and reports using a standard format spreadsheet. This field level data is collected by district co-ordinators thence to the Deputy Project Director for transmission to the M&E Specialist for compilation into GCF format quarterly reports and analysis. All this information is then compiled for monitoring in relation to the Annual Workplan (*"strict monitoring of the implementation of the work plan and the project timetable according to the conditions of the FAA and disbursement schedule"* specified in the Inception Workshop report.,

The budget for the project's M&E was USD 575,000, of which USD 232,636 (40%) has been expended by the time of the IE (Annex 24). Reviewing the breakdown of the expenditure, the levels of most categories of the M&E spending have been around 50% of the total budget – although expenditure on the Inception Workshop was notably low compared to the budget (18%). The IE has not been provided with any more detailed annual breakdown of expenditure (no Section 3 in 2020 draft APR and none of the previous APRs distinguish the M&E expenditures) but as far as the IE can determine, the level of budget spending indicates it is being soundly managed.

Given the recommendations of the v2 GAP, the IE concurs that wherever relevant, the total number of beneficiaries from project Activities should be further disaggregated by (gender, age, disability) and reported, with particular note being made of the numbers of youth (disaggregated by gender) benefiting from project Activities.

Although one of the objectives of the IW was *"to identify how project M&E can support national monitoring of SDG indicators as relevant"* – this was not included in the discussions and the IE have not found evidence that the project system links into any national system.

### **Stakeholder engagement**

This is an innovative river basin project for Sri Lanka. As a prerequisite, projects which adopt river basin / landscape approaches involve inter-sectoral co-ordination and co-operation. There have been long-existing sectoral / institutional barriers between different government agencies in Sri Lanka (noted in the risk log from 24 July 2017 to 30 June 2022 as *moderately likely*). However, information gathered during the IE shows that for example at sub-national levels different involved sectors are working co-operatively towards the project Objective. This is less clear at national level, possibly as the PB meetings are infrequent and reflected in some IE informants at this level suggesting this should have been 3 separate projects.

Commendably high levels of local stakeholder involvement and public awareness are contributing to the success of this project, as project communications, awareness raising and training are reaching the majority of people in the project river basins (including elderly, women and men, youth (both gender) and children via schools (training teachers, also through scouts / girl guides / environment societies), all contributing to the progress towards the achievement of project Outputs, Outcome and Objective.

### **Social and Environmental Standards (Safeguards)**

Green Climate Fund's (GCF) safeguards requirements are met by applying UNDP's Social and Environmental Standards (SES). UNDP SESs emphasize the primary principles of Human Rights, Gender Equality, Women's Empowerment and Environmental Sustainability. The specific objectives of UNDP's SES are to:

- Strengthen the social and environmental outcomes of programmes and projects;

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<sup>68</sup> Note, the IW report noted that "extent of minor irrigation under targeted cascades with increased cropping intensity" has been defined as CI < 1.6. Defining the targeted cropping intensity as less than 1.6 in the project document (which should be more than 1.6) is a typing mistake.

- Avoid adverse impacts to people and the environment;
- Minimize, mitigate and manage adverse impacts where avoidance is not possible;
- Strengthen capacities for managing social and environmental risks;
- Ensure full and effective stakeholder engagement.

These are delivered by the project through Quality Assurance, Screening and Categorization, Assessment and Management, Stakeholder Engagement, Accountability Mechanisms, Access to Information and Monitoring, Reporting and Compliance.

The project's Social and Environmental Screening Procedure (SESP), which integrates the SES principles, identifies potential social and environmental risks and determine the overall project risk category. For CRIWMP, six environmental and social risks were identified (four risks, mostly environmental, were rated "low" and two of the risks related to sediment and contamination of water sources were rated "moderate"). Overall, the project's UNDP Social and Environmental Screening Category was rated *moderate* in the ProDoc.

The project's Environmental and Social Management Plan (ESMP) comprehensively addresses issues on water quality, erosion, drainage, sediment, noise, vibration, air quality, flora, fauna, waste management, chemicals, fuel and emergency responses, considering national legislation<sup>69</sup>. The ESMP is based on the following assumptions:

- \* None of the interventions will require the displacement of people;
- \* None of the interventions will be conducted in sensitive locations;
- \* The excavation works for the "tanks" and irrigation channels will be undertaken during the dry season;
- \* All sediment removed from the tanks will be placed on existing agricultural land;
- \* The building of the rainwater harvesting tanks will be undertaken during the dry season to reduce erosional impacts;
- \* Where practicable, materials will be prefabricated to reduce waste;
- \* All filters and other items used in the sterilization and purification of groundwater will be stored in a safe place to remove the chance of releasing chemicals into both surface and groundwater;
- \* Appropriate erosion and sediment control will be undertaken during all stages of the projects;
- \* There will be no release of pollution and/or chemicals as a result of the projects.

No revisions have been made since Board Approval.

The IE team reviewed and validated the risks identified in the project's most current SESP/ESIA, and those risks' ratings and conclude there is no need for revision.

#### Grievance Redress Mechanism

The IE particularly commend the project team on the CRIWMP on the implementation of the Grievance Redress Mechanism structure to address all grievances received due to breaches in environmental or social standards. The mechanism comprises a Complaint / Grievance Register and a 2-tier Committee structure to address all complaints on the project. CSOs play a critical role in facilitating grievance committees at village and divisional level. The mechanism is briefly outlined here, with more details provided in Annex 22:

- \* **The tier-1** Grievance Redress Committee is at the Grama Niladhari (GN) Division level with on-site representation of relevant parties such as the Contractor, Engineer, a Farmer Organization Member and others:
- \* **The tier 2** of the committee will be at the Divisional Secretariat level with members such as the Agrarian Development Officer, CSO member, Representative of the Mediation Board, the PMU Safeguards Specialist and others. This structure will remain as originally agreed as it is in line with all GCF safeguards requirements for the project.

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<sup>69</sup> *Inter alia* the National Environment Act, Antiquities Ordinance, Fauna and Flora Protection Ordinance Act, Forest Ordinance and National Heritage Wilderness Areas Act

The Accountability Mechanism includes compliance review and stakeholder response. The compliance review is managed by UNDP Social and Environmental Compliance Unit (SECU). Social and environmental complaints by communities and people affected by the project can be submitted to SECU, which will respond to claims that UNDP is not in compliance with applicable environmental and social policies. The stakeholder response mechanism ensures that individuals, peoples and communities have access to appropriate grievance resolution procedures for hearing and addressing project-related complaints and disputes. It involves mediation, negotiation, conflict resolution, or referral to another existing, in-country dispute resolution mechanism.

Access to information is provided through a publicized telephone number, as a point of contact for enquiries, concerns and complaints, and all material are published in Sinhala, Tamil and English.

Each project APRs list the numbers of grievances received and committees set-up.

The 2020 APR reports the range of grievances to the project:

- \* beneficiary selection for installing rainwater harvesting tanks;
- \* issues while laying PVC pipes in Rural Water Supply Systems (RWSS);
- \* concerns related to construction activities such as quality of construction work and poor performance of engineering contractors;
- \* design failures and delays in the construction work in VIS up-grading and rural water supply systems (RWSS).

The team then categorise the major areas of the grievances and compiling them by request / complaint / comments and suggestions;

- A. Climate Smart Agriculture (CSA) (Output - 01)
- B. VIS Upgrading (Output – 01)
- C. Drinking Water Supply – (Output – 02)

Overall, the project received 97 grievances in 2020, with the highest number 59 cases reported under the Drinking Water Supply category. Out of the total cases, the project has been able to resolve 85 grievances (88%). One of the major characteristics of this process is that the project was able to arbitrate most of these grievances within the tier 01 in collaboration with the project stakeholders.

## **Reporting**

Assess how adaptive management changes have been reported by the project management and shared with the Project Board.

Adaptive management changes are included in the APRs and reported at formal annual Project Board meetings as part of the review of the previous year's achievements, so documented briefly in the minutes, which are shared among the RPs.

### Reporting to GCF

Project Team and RPs have fulfilled the GCF reporting requirements, submitting completed Annual Performance Reports (APRs) for 2017 (on 1 March 2018), 2018 (on 1 March 2019), 2019 (on 28 Feb. 2020) and 2020 (on 27 February 2021).

The 2019 APR is the first APR to confirm problems with both Activities of Output 2 stating "progress delayed", although elsewhere it was raised during Inception. This continues in the 2020 APR. Neither 2019 nor 2020 mentioned the poor progress towards Indicator 3.2 of Output 3.

The project team have continued to deal with the issues about Output 2 as follows:

- \* 6 April 2020 - Note to File to GCF
- \* 16 Oct 2020 - Response to GCF Queries plus Additional Information
- \* 20 Nov 2020 – Technical Note – Design and Selection of Water Treatment
- \* 14 Dec 2020 – draft Restructuring Proposal
- \* 5 April 2021 – final Restructuring Proposal (reportedly cleared by GoSL on 7 May 2020 but awaiting letter of no objection before submission to GCF)

These responses seem adequate, but the IE consider them belated given that the problems of the change in the baseline affecting Output 2 was raised during project inception as sites proposed in the FP had been given to other projects between 30 June 2016 and 28 June 2017 (see Project Information Table at front of this report).

### Communications

The IE finds that there is good internal project communication between the sub-national stakeholders but conclude that there is more limited communication between the national stakeholders, apart from during annual Project Board meetings. This means that different sectors are not necessarily aware of the project Activities, achievements and issues, particularly in other sectors, which detracts from the benefits of a river basin approach and risks sustainability.

The project has a sound communications strategy with external groups and makes use of a comprehensive range of tools to communicate with beneficiaries and the wider public. These include: newspapers; radio; TV (broadcasting project videos); social media (WhatsApp, Facebook, YouTube) and leaflets – in Sinhala, Tamil and English. The project particularly makes good use of YouTube – see <https://www.youtube.com/channel/UCOVk6QukFOYZhF3SdHNQr4A/videos><sup>70</sup> However, note, that the internet and social media are not universally available across Sri Lanka and likely lower than average in the Dry Zone (see Box 2).

#### Box 2: Media Use in Sri Lanka<sup>71</sup>

##### Internet users in Sri Lanka

There were 10.10 million internet users in Sri Lanka in January 2020.

The number of internet users in Sri Lanka increased by 399,000 (+4.1%) between 2019 and 2020.

Internet penetration in Sri Lanka stood at 47% in January 2020.

##### Social media users in Sri Lanka

There were 6.40 million social media users in Sri Lanka in January 2020.

The number of social media users in Sri Lanka increased by 491,000 (+8.3%) between April 2019 and January 2020.

Social media penetration in Sri Lanka stood at 30% in January 2020.

##### Mobile connections in Sri Lanka

There were 31.80 million mobile connections in Sri Lanka in January 2020.

The number of mobile connections in Sri Lanka increased by 2.2 million (+7.5%) between January 2019 and January 2020.

The number of mobile connections in Sri Lanka in January 2020 was equivalent to 149% of the total population

## 4.6 Sustainability

The IE have reviewed the risks identified in the FP, ProDoc, APRs and ATLAS and conclude they are appropriate and up to date, with the APR 2020 seen by the IE including the statement “*during the reporting period there have been no changes in the key environmental and social risks and impacts as identified and arising from the implementation including any unanticipated risks and impacts*”. The ATLAS Risk Log provided to the IE is undated but includes the risk of Tropical Cyclone Burevi in Dec 2020, also entries on risks relating to COVID-19 and the ongoing challenges regarding co-financing.

### Financial risks to sustainability:

The IE finds that many aspects of the project design strongly support sustainability of the project Outputs once GCF assistance ends, notably relating to Output 1 (rehabilitated tanks, VIS, CSA

<sup>70</sup> The IE NC reviewed these as in both local languages

<sup>71</sup>Source: <https://datareportal.com/reports/digital-2020-sri-lanka#:~:text=There%20were%2010.10%20million%20internet,at%2047%25%20in%20January%202020.>

technologies) and Output 2 (rainwater harvesting systems on homes also advance filtration systems) as awareness raising / training / training of trainers has been an integral part of the project activities to ensure beneficiaries are well trained and organised to manage these post project. Further, the consensus among informants to the IE is that the win-win benefits of Output 3 (Agro Met advisories to farmers, GIS for flood risk assessment and disaster preparedness, flood and water management advisories [for cascades and wider river basins], including support for the project-provided automatic water level recorders, manual rain gauges, flow measuring gauges installed) is sufficient that the GoSL will continue and indeed scale-up these systems post project.

***Socio-economic risks to sustainability:***

The various key stakeholders confirmed to the IE that they greatly appreciate the project benefits and recognise that it is in their interest for these to continue to flow post project. Some informants said that the Outputs should be mainstreamed into GoSL programmes. Others concluded that this would not be affordable and that continuing project activities etc would require follow-on projects across the project river basins – but particularly for scaling-up nation-wide.

Further, each project location has thousands of cattle, water buffaloes, and cows. Before project interventions, they are in forest during the cultivation period in Maha season and in the chenas and command areas in the Yala seasons. After the VIS development, the command areas are cultivated in both seasons and the chenas are being converting to perennial crop cultivations. As a result, the cattle have lost their feeding grounds. This requires the project to resolve a sustainable solution.

***Institutional Framework and Governance risks to sustainability:***

The intersectoral approach being used in the CRIWMP is innovative in Sri Lanka. It is not unexpectedly taking time for partners to understand the win-win benefits and for this to embed. Most informants to the IE did not express problems with the approach but a small number did and felt the project should have been three separate projects.

Being intersectoral the project is aligned to a large number of legal frameworks, policies and governance structures – including relating to environment, forestry, flora & wildlife and antiquities<sup>72</sup>.

Although the project is recognising the cascade as a hydrological, biological as well as social cultural setup in agriculture civilization, informants expressed concern that the GoSL do not have a legal / governance framework for cascades, which should link farmers' organisations which manage the tanks with the intervening canals / reservoirs etc. This is an element missing from the CRIWMP RF and could usefully be added for the final years of the project.

Lessons from the CRIWMP are reportedly already being included in a new agricultural policy being drafted (by end May 2021) for the country, which includes resilience to climate shocks and efficient farm water use – which will sustain and scale-up positive elements of the project.

In 2019, a national CSA guideline was published based on lessons from the CRIWMP.

***Environmental risks to sustainability:***

Losses and damage to the physical, livelihood and economic infrastructures developed under CRIWMP due to increasingly frequent extreme weather events attributable to CC, including tropical cyclones (such as Burevi which struck in Dec 2020), heavy rains, floods and droughts jeopardize sustenance of project Outcomes.

Loss of cattle feeding grounds due to improved water mgt and irrigation, resulting in enhanced cultivation (Maha and Yala seasonal cropping).

Increasing instances of human elephant conflict (HEC), also other wild animal attacks (monkeys, giant squirrels, wild boar, insects) and invasions onto farms are crucial issues for the sustainability of Outcomes 1 and 2. The HEC is related to food and water availability to wild elephants in forest and shrub lands (exacerbated by CC), habitat loss and behaviours of animals (tempted into VISs and OFC

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<sup>72</sup> Base don the historical importance of the tank and cascade systems

fields). Consequently, the farmers have high risks, especially during harvesting. The project is already working to address the root causes, by upgrading of upstream tanks (forest tanks) to increase water and food availability and also improving their habitats. The NC concluded that *"Within the project, there is no proper solution to minimize the problem. Therefor an answer is needed from outside the project."* This may develop from under the Vistas NPF strategy, which considering mitigating HEC includes: erect robust and strengthened electric fences; establish water sources dedicated to elephants; provide financial assistance to all the victims of HEC

#### 4.7 Country Ownership

*"Being implemented following UNDP's National Implementation Modality, where the Implementing Partner and the responsible parties, including both national and provincial agencies are taking the lead in project implementation. UNDP provides implementation and operational support when requested by the Government. .... relevant government entities take lead in planning, implementation, monitoring of results, and fund disbursement, including mobilization of co-financing ..... the project was reviewed by H.E. the President in 2020.... Project monitoring committees continued to perform at sub-national level (provincial, district and divisional levels) .... local authorities took frequent progress meetings with representations from different levels of sub-national level agencies to monitor the project progress. The Project is routinely being reviewed by the Governors of the respective Provinces and adopted as a novel development approach for water resources development and enhancing climate resilience."*<sup>73</sup>

As mentioned previously, the project is aligned with national development plans, national plans of action on climate change and priorities of the national partners. It will contribute to the new National Policy Framework (NPF) "Vistas of Prosperity and Splendor" (2020-2025) and to Vision 2030.

The infrequency of PB meetings is of great concern, but at other levels (to the level of the H.E. the President – meeting held on 8 January 2020) and sub-national levels there is a good level of country ownership. This is well reflected in the project governance, coordination and consultation mechanisms as the wide range of involved sectors are involved either as RPs and / or in sub-national levels in committees / activities on the ground.

The project as implemented is responsive to local challenges and relevant/appropriate/strategic in relation to SDG indicators and National indicators.

The high level of awareness raising, training, training or trainers in all three Outputs of the project are considered appropriate to build essential/necessary capacities to promote national ownership and ensure sustainability of the result achieved.

The low level of mobilization of the GoSL co-finance does call into question country ownership of the project and existed from 2017 – 2019, with various challenges including terrorism affected int especially important tourist sector. This situation has been hugely exacerbated as the Sri Lankan economy continues to face the brunt of the COVID-19 crisis,, the closing of international borders badly affected key sectors such as tourism and the apparel export sector, the country's highest foreign exchange-earners and the remittance earnings have also sharply declined. Given Sri Lanka's weakened fiscal position, it is less likely that the government will be able to meet its obligations for co-financing under this project. However, the profile of the project is high, as the water sector is of immense political importance to the people and politicians across the country – and there has been direct meetings with the President. The Nov 2020 letter from Mol offers positive signals that the GoSL will endeavour to honour the obligation.

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<sup>73</sup> 2020 draft APR

## 4.8 Innovativeness in results areas

The project is hugely innovative as it is the first river basin / cascade management project in Sri Lanka which integrates addressing climate change impacts on agricultural water use, drinking water issues, meteorology, hydrology (for agro-met advisories and disaster early warnings). The project is supporting the adoption of a wide range of innovations towards achieving the Outputs and Outcome, including: tank rehabilitation; climate smart agriculture approaches; rooftop rainwater harvesting systems; groundwater recharging; community water supply systems; advance filtration systems (to purify the heavily contaminated groundwater used in the project areas); also through improving the hydrological and meteorological monitoring systems (rain gauges, water tank depth gauges and river flow / level gauges) to provide timely, tailored agro-met advisories for small-holder farmer (disseminated via Agrarian Service Centres), also improved disaster early warning systems using open-source software which will enable the GoSL to update systems post-project.

The project is also catalysing the establishment of a wide range of management committees / management plans to support sustainability of these innovations, including cascade level environmental and catchment conservation plans and VIS-specific environment management plans.

It is already providing lessons which are being taken-up by other CC donors for larger future projects and the innovative work in Output 3 concerning disaster preparedness has already saved lives so is proving of great interest across the country, including in 2020 to Presidential level. Lessons are also being used in the drafting of a new CC resilient agriculture policy (due end May 2021).

## 4.9 Unexpected Results (both positive and negative)

### Positive Results

The technical improvements of the weather forecasting and early warning mechanisms is benefiting all farmers and other related non-agricultural sectors of Sri Lanka.

Farmers in the project areas are keeping the weather records manually as well as in digitally forms. They also play a critical role in the feedback loop, sharing their experiences related to climate information and agro-met. advisories directly to the national agencies facilitated by the project.

WhatsApp groups have been formed among the farmers who then can directly share the information in their mother language. Recordings of the weather data, especially rainfall and water levels of tanks are daily measured, recorded and disseminated via these groups.

The ecological home gardening package for CSA which includes beekeeping, land use improvement with soil conservation, the use of agriculture advisories and weather forecasts, compost yards, micro-irrigation, pot cultivation, bio fence, biogas, cattle farming, poultry farming etc. is the most successful CSA practice in the project. They all have applied the same model but model implementation in the Puttalam District is the best.

### Negative results

Smallholder farmers who live just outside project river basins but in the same admin areas are unhappy to be excluded from the benefits of the project.

Trincomalee shows the lowest performance with respect to CSA activities due to various reasons, which require investigation.

## 4.10 Replication and Scalability

Already the agro-met advisories produced under Output 3 are being used by an on-going IFAD project, contributing to replication and adding to the planned total of indirect beneficiaries (IE not aware of numbers involved).

In adopting the river basin approach, *inter alia* focusing on rehabilitating the historic tank – cascade systems, advocating CSA, contributing to provision of safe drinking water and improving disaster early warnings, the project is providing a model of how Sri Lanka can move from concentrating on agriculture that is heavily dependent on water, which is highly vulnerable to the impacts of CC to a safer, more resilient, diversified and sustainable use of rainwater to support improved livelihoods in rural areas.

The range good practices which the project is catalysing (including the many innovations outlined in Section 4.8) are already being proved effective in the pilot river basins of Sri Lanka's Dry Zone. Through raising awareness of these successes, the GoSL and other CC financing partners can replicate the lessons and thus scale-up the benefits of this GCF financing to other areas of the country, particularly in the Dry Zone.

In this context, the project's use of participatory approaches to enable participatory consultations with farmers, community ownership of activities, collective decision making and establishing protocols for water sharing for multiple uses need to be highlighted, to ensure sustainability.

The project is already using demonstrations in some activities within the project geographical area to help smallholder farmers understand innovations such as CSA, rwh and groundwater recharge. There is potential to expand demonstrations, to include exchange visits from representatives of communities in other river basins, also visits from senior officials (including the Project Board).

The project is also contributing to the likelihood of replication and scaling-up through mainstreaming, providing lessons for future investments and also for GoSL programmes, for example: ongoing revisions to the national agricultural policy, NDCs, national water management strategies, cascade development guidelines, the national CSA guideline (2019) and a technical guideline for irrigation work.

#### 4.11 Gender Equity

During the Inception Workshop (Sept 2017), it was decided to "*update and review .... the gender action plan*", to "*reflect the new developments, and improve several areas, those need additional emphasis*".

The updated Gender Action Plan and Gender Study (2018) has two components:

1. General activities to strengthen the overall gender awareness of the project staff and project partners to ensure gender dimensions are incorporated;
2. Specific activities implemented by the Project to ensure gender equality.

The v2 GAP is more comprehensive, including some more proactive actions regarding the project activities to target women also under the category General Programmatic Actions, the following:

- \* Identify opportunities to mainstream Gender as a cross cutting theme across the programme (by Oct 2019);
- \* Strengthen the awareness of project staff, partner organizations on gender sensitive approaches for integrated water management (by Dec 2020);
- \* Strengthen gender, age, disability disaggregated data collection, analysis and application (by June 2019);
- \* Mainstreaming gender dimensions into national and provincial policies, programmes and plans on climate;
- \* change adaptation and water management (by Dec 2022).

The report concludes that the project background in the "*ProDoc is age, gender and diversity sensitive, and has also clearly explored the causes, conditions (the problem), process, and the impact in general, as well as, with special attention to the age, sex and other diverse community groups*". The study acknowledged that the FP & ProDoc identify five key barriers that are needed to address for the meeting of the Project goals.

Critically the Gender Study asserts that “**the Project could have a separate output on the economic empowerment of women**”, but on the basis of the evidence and experience of many similar projects, the IE team disagree with this.

Opportunities not included in the FP or ProDoc, which the gender study identified for the project to focus on women (also other AGD groups) were:

- \* consultancy services (*inter alia* construction or providing of equipment/goods, technical guidance, capacity development, system development, development of management plans, and development of standards of procedures (SOPs));
- \* trainers, trainees, and the content of trainings for capacity building of institutions (Govt./FOs/CBOs/ Village Water Management Committees) and individuals (Officials/ FOs/community leaders/ farmers/ women).

The UNDP CO confirmed that the main purpose of the study was to understand gender dimensions in the project as a learning exercise for the team. Based on this, important training was conducted for project staff and CSOs<sup>74</sup>.

The project also supported development of a workbook<sup>75</sup> to support discussions in training sessions on: 1. Equality for Sustainability; 2. Understanding Diversity in Community Projects; 3. Age, Gender and Diversity and Equality; 4. Age, Sex, Gender and Diversity Response Programming

The project is gathering gender disaggregated data, financial resources and project activities under Outputs 1 and 2 are explicitly allocated to enable women to benefit from project intervention and the project is taking account in activities and planning for local gender dynamics. All the mid-term results show that more than 50% of the beneficiaries are women and the IE found that women are active participants in project decision making at local levels.

Disappointingly, the gender balance of the Project Board and staff is very poor:

- \* PB - of 27 attendees at the 2021 meeting, only 5 were female (19%);
- \* UNDP project staff – of 16 staff, only 3 female (19%);
- \* GoSL/PMU: of 27 staff, only 5 females (19%).

As mentioned previously, the PMU engaged CSOs as service providers at district level to implement the project. During the IE, the NC held in-depth discussions with the CSOs in Vavuniya and Anuradhapura. CSOs have been mainly tasked with community mobilizing, stakeholder coordination and facilitation, and monitoring and reporting. The CSOs can play a significant role in advancement of women and gender equality through assuring AGD responsiveness of the divisional and district plans, developing of AGD responsive beneficiary selection criteria and procedures, providing of technical support to integrate AGD in sectoral plans, AGD sensitive measuring, monitoring and reporting. However, the study could not see their engagement, commitment and competency in age, gender and diversity sensitive programming.

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<sup>74</sup> e.g. 5 & 6 March, 2019 in Anuradhapura District

<sup>75</sup> Age, Gender, Diversity and Water management Workshop Workbook, CRIWMP Project, UNDP (2019) prepared by Dissnayake DMSB, Sri Lanka.

## 5. Conclusions and Recommendations

### 5.1 Conclusions<sup>76</sup>

#### Project Strategy and Relevance

1. The project is contributing to achievement of SDGs 1,2,5,6 and 13, also other UN and national frameworks and Outputs as listed in the FP, ProDoc and in Chapter 1 of this report.
2. The project is setting standards and precedents for future bottom-up, intersectoral river basin management planning (particularly for the rehabilitation and reactivation of tank-cascade system) in the Dry Zone of Sri Lanka, including the selection of river basins and cascades based on adaptation potential and vulnerability, using the linkages between domestic water needs, livelihood needs, information needs and responding to community requirements in an integrated manner to enhance resilience to the impacts of climate change.
3. Increasing provision of drinking water which meets national standards is extremely welcome in the Dry Zone, where project areas currently use groundwater as a source of potable water. According to the FP, this *"groundwater is contaminated with heavy metals, nutrients and other chemical attributes that make it not only non-palatable but more importantly, extremely dangerous to life through its consumption .... contributing to illnesses such as kidney disease and even death."*
4. The project is aligned to the sector development priorities and plans of all the involved sectors, also to the NPF Vistas of Prosperity and Splendor (2020 – 2025) and Vision 2030.
5. The project is gender responsive in design and implementation, with women being >50% of beneficiaries, although the gender balance of the Project Board, GoSL and UNDP staff are regrettably very far from being gender balanced.
6. The project's ToC remains valid, with three synergistic Outputs and the barriers / assumptions are confirmed.
7. The project's relevance, with its clear focus on inter-sectoral water management, is even greater in 2021 compared to 2016 when it was approved, as Sri Lanka is experiencing ever more frequent and intense extreme weather events, as well as changes in seasonal rainfall reliability. Furthermore, some of the impacts of COVID-19, including the return of people from the cities to rural areas and disruption to food supply chains make the project focus on CSA, also since 2020 including home gardens (urban and sub-urban), with agro-met. advisories to help smallholder farmers plan cultivation, also enhanced disaster early warning and preparedness is crucial.

#### Effectiveness and Efficiency

8. The project's range of stakeholders at provincial / district / division levels (see Annex 6) and particularly the help of the project's four CSOs (recruited as service providers), are implementing most of the project Activities effectively and yielding results despite the interruptions in late 2019 and 2020 (see Section 4.5). Fund Level Indicator 1.2, Outcome A7.0 and 7.1, Output 1 and one indicator of Output 3 are on target to be achieved. However, there are issues around communication of significant changes to the planned activities on the ground, which jeopardize trust, reliability, and project sustainability. Notably, there are many communication gaps between the project managers, the beneficiaries and the GoSL officers concerning the restructuring.
9. Three of the seven project Output indicators are not on track to be achieved (2 of Output 2 and 1 of Output 3). The IE consider that the indicator for Output 3 will be very likely to be achieved by the close of the project as that Output is particularly dependent on developing IT, emergency plans, SOPs, training and communications, which now achieved will enable the target to be reached. The future of Output 2 and the attainment of the indicators is dependent on the acceptability of the Restructuring Proposal by the GCF. If approved, very urgently needed

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<sup>76</sup> Numbering based on order of topic, not importance

drinking water supplies will be available to the communities, with huge welfare and health benefits.

10. The PMU has made use of adaptive management to overcome various external factors which have caused delays in implementation (drought, terrorism, tropical cyclones, floods and COVID-19). The PMU, EE, RPs and field level adaptations to COVID-19 must be especially commended as these have supported the continuation of project implementation, with moves to using digital technologies etc.
11. The project's low mobilization of co-finance is having some impacts on progress, along with the underspend on the GCF grant funding to-date.
12. Considering Output 1, the project should be exerting more effort to scale the interventions to the cascade level, as envisaged in the project proposal. To achieve this, a greater commitment from the EE is desired to initiate the necessary policy dialogues, policy changes, institutional changes at the cascade level enabling multiple users of the cascade to come to a common form, and if necessary, the legal backup.

### Progress

13. Of the seven project Output indicators, four are on track to be achieved and the fifth considered highly likely to be achieved. Progress is being made on rwh systems under Output 2, but to achieve the target numbers of beneficiaries it is important that the PMU are facilitated to implement their Restructure Proposal.
14. The project has made significant achievements using a range of innovative approaches, providing a wide range of training opportunities for smallholder farmers, teachers, GoSL officers at national / sub-national levels and CSOs, also training trainers.
15. The project is making commendable use of the full range of communications technologies to disseminate awareness and knowledge about the project in the project areas and to national level in Sinhala, Tamil and English, also some pictorial materials for people of limited literacy levels.
16. Community engagement is commendable across all three project Outputs, making use for example of the project's grievance redress mechanism to address complaints.

### Project Implementation and Adaptive Management

17. Largely, the project is being effectively implemented and is already demonstrating positive results, with visible impacts on the ground which are already feeding into the design of future projects (ADB and WB), an ongoing revision to the national agricultural policy, nationally determine contributions (NDCs), national water management strategies, cascade development guidelines, CSA guideline and a technical guideline for irrigation work. However, there is a demand to redefine the exact roles of key stakeholders and work accordingly and amicably to achieve the project goals.
18. The project has responded and adapted very appropriately to a series of crises of short and long duration which have affected the project from soon after inception (terrorism in 2019, elections in 2019 and 2020, COVID in 2020 to present, tropical cyclone Burevi in Dec 2020).
19. The infrequency of Project Board meetings is a serious limiting factor on mainstreaming inter-sectoral river basin approaches.
20. A range of sub-national committees contribute effectively to oversight of the project, as do the four CSOs recruited by UNDP as service providers.
21. Contrary to the FP, the project does not benefit either from oversight / guidance by an Inter-ministerial Coordinating Committee (IMCC) or Technical Advisory Committee (TAC) – whose specific role includes enabling coordination between the key actors of this multi-sectoral project. [The project has assembled a Technical Working Committee (TWC) but focusing only on Output 1.]
22. The 4th tranche of the GCF grant (due August 2020) was withheld due to the ongoing conversations with the GCF about Output 2, finally leading the PMU to prepare a Restructuring Proposal (decision made collectively by UNDP and the GoSL, based on discussions with GCF).

This poses a serious risk of prematurely terminating the project which will jeopardize the achievements of all the other Activities towards the Outputs, Outcome and Objective of the project, foregoing a great deal of adaptation benefits.

23. The problems regarding Output 2 Activity 2.2, which resulted in the GCF withholding tranche-4 of the project funds in August 2020 and to the GCF are. This is concerning to the IE, given one of the major environmental and social problems the project sought to address:

*"The project areas currently use groundwater as a source of potable water. The groundwater is contaminated with heavy metals, nutrients and other chemical attributes that make it not only non-palatable but more importantly, extremely dangerous to life through its consumption. The consumption of the water has contributed to illnesses such as kidney disease and even death. Water sterilization and purification processes will be established to remove chemicals, heavy metals etc. from the water to increase its quality and contribute to reduction in the potential for kidney disease and other diseases. There will be no additional water taken above that currently used."*

Also the social context:

*"The interventions will be undertaken in areas of Sri Lanka that have observed significant conflict in the past. Many of the people of the area were impacted by the past civil war and as such, there is a need to rebuild peace within and among ethnic groups; and community spirit. The project will benefit individuals through improved agricultural productivity and access to clean disease free drinking water as highlighted above. Communities can feel safer and cope better with flood events through changes in agricultural practices that are more climate resilient and have improved access to water during drought periods. This in turn increases community resilience by providing strengthened village irrigation infrastructure, which is central to life in the Dry Zone, therefore enhancing the lives of vulnerable groups including those with disabilities, minority groups, youth and the elderly. By having water available for longer, the community has far better means of being sustainable with respect to food production and thereby increasing their livelihoods."*

24. The project has made serious efforts to find alternative sources of drinking water for the communities designed in the FP and ProDoc as beneficiaries and the design of the Restructuring Proposal makes a workable alternative, if not delivering the full anticipated supply of drinking water. The change in the costs of the proposed water purification systems is clearly beyond the control of the project, lower cost alternatives would not supply water that meets national drinking water quality standards. It would not be appropriate for the project to provide water which does not meet national standards.
25. Lessons can be learned about the change in the baseline condition by the date of the project start-up and the PMU / UNDP should have communicated the problem earlier to GCF. However, the IE find the project has underspent yet reached other mid-term targets so could change the allocation of funds between Outputs to rectify the problem providing national standard drinking water to a smaller number of people than in the FP (-94,285) but providing targeted training on water source protection and management (+74,403).
26. The changes to the EE and RPs took place on 9 August 2020, but GCF was not notified until 20 November, which the IE consider was very belated.
27. The delay in release of tranche 4 of funds by GCF, hence slowing the progress with activities, has implications for the future of the project's engagement, particularly with beneficiaries ("loosing belief in project"<sup>77</sup>) but also stakeholders at all levels.
28. There has been a low level of mobilization of GoSL co-finance from the start of the project to the IE for reasons reported to the IE as outside the EE's control. However, there are indications that this may be rectified in 2021, as the IE have had sight of a letter of assurance of co-finance from the MoI to UNDP letter dated 13 Nov. 2020. Further a letter dated 03 May 2021 indicates that **all** the GFC funds need to pass through the Treasury, thus the AE (UNDO CO) should follow this to ensure greater mobilization.

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<sup>77</sup> Quote from an informant to the IE

29. There is an on-going issue of financial control between GoSL PMU and UNDP which was reported to the PB and the IE. Transparency and strengthened coordination between IP and CO are needed to resolve this issue.

#### Sustainability

30. The high level of project investment in awareness raising, training and training of trainers integrated into all three Outputs of this project following the comprehensive training needs assessments (TNAs), their validation and development of 16 training modules (12 by the University of Colombo and 4 by IPID/GRF) provide a sound foundation for sustainability post project.
31. As the project activities by definition have been designed to enhance the resilience of the systems in the three project river basins, to raise awareness and prepare people, their livelihoods and wider river basins to adapt to CC, the environmental risks to sustainability are being reduced.
32. There is a risk to the sustainability of achievements under Output 1 due to the lack of legal governance framework for the tank-cascade systems.
33. The mainstreaming of lessons from the project into national policies, guidelines etc which has already taken place will contribute to the sustainability of the project's innovative approaches.
34. There are financial risks to the sustainability of the project interventions such as the tank, VISs and drinking water systems – however the project's focus on training, including in O&M, reduce this risk.
35. There are several risks to environmental risk, notably from CC – but this whole premise of the project is to develop resilience so this is being.
36. Another environmental risk to sustainability relates to reported increase in human – elephant (and other wildlife) conflict, as CC affects availability of water in the forests and improved (perennial) crop growing offer an alternative forage.
37. A third risk arises as there is a loss of cattle feeding grounds, due to project catalysed improved water management and irrigation, resulting in enhanced cultivation (Maha and Yala seasonal cropping).

#### Country Ownership

38. Extracts from the project's 2020 APR summarize the high level of country ownership, including the wide range of responsible partners, stakeholders and attendees at Project Board meetings. In 2019, two detailed meetings were held with H.E President Maithreepala Sirisena. Then H.E President Gotabhaya reviewed CRIWMP with other irrigation projects on 8 January 2020.
39. Country ownership of the results is further demonstrated as the lessons have been included in guidelines (CSA and irrigation) and are being included in the drafting of a new agricultural policy, also in the design of two future larger projects (ADB – rehabilitation of 2,400 tanks) and World Bank climate smart irrigation project to use agro-met advisories).

#### Gender

40. The very brief gender action plan prepared during the project design phase was revised following the Inception Workshop and provides a much sounder foundation for the PMU and the CSO project service providers to ensure the inclusion not only of gender, but also age and disability into project implementation, including collecting project monitoring data disaggregated by GAD.
41. Within the project governance and staff, the poor gender balance is of concern.

#### Innovativeness

42. Two of the project's approaches are innovative for the country, namely;
- \* River basin / landscape (linking tanks into cascades, also rivers);
  - \* Integrated water resources management (agricultural water use, drinking water supplies, agrometeorology);
- and provide a model for future inter-sectoral approaches.

43. The project is also using an innovative range of technologies, including (CSA, rooftop rwh; groundwater recharging; community water supply systems; advance filtration systems; improving the hydrological and meteorological monitoring systems (rain gauges, water tank depth gauges and river flow / level gauges) to provide timely, tailored agro-met advisories for small-holder farmer (disseminated via Agrarian Service Centres), also improved disaster early warning systems using open-source software which will enable the GoSL to update systems post-project.

#### Replicability and Scalability

44. On many levels, the project is setting standards for replication and scaling-up of the project approaches (tank – cascade systems, river basin approaches) and innovations (CSA, rooftop rwh; groundwater recharging; community water supply systems; advance filtration systems; improving the hydrological and meteorological monitoring systems (rain gauges, water tank depth gauges and river flow / level gauges) to provide timely, tailored agro-met advisories for small-holder farmer (disseminated via Agrarian Service Centres), also improved disaster early warning systems using open-source software which will enable the GoSL to update systems post-project.
45. The project’s communications strategy, using the wide range of media to reach a wide audience and share lessons learned will support the replication of project actions nationally. These should also be shared internationally.

#### Gender Equity

46. The project was particularly designed to especially benefit women, due to their role in the household care economy (water availability, health of family members and safety of domestic assets such as livestock). Women take full responsibility for the care of children, the disabled and the elderly. In the Dry Zone districts of Sri Lanka, the impact of the war and disease has left a number of women widowed or with husbands who have migrated to the cities for work. The project is successfully targeting activities to benefit women and they make up more than 50% of the beneficiaries.
47. The project is also effectively including other vulnerable groups (disadvantaged groups. The disabled, children) and youth, but could widen the scope of activities it supports.

## 5.2 Recommendations<sup>78</sup>

**Table 18: Key Recommendations**

#	Details	Responsible Party (Parties)	Timing
Effectiveness and efficiency			
1	The IE recommend prioritising progress under Output 2 (subject to approval of the Restructuring Proposal) as it is an integral part of the overall project design and meets a vital human need. If not all aspects (of restructuring) are approved, project could consider scaling-up rainwater harvesting, which is proving very popular and effective (also linked to groundwater re-charge) or other alternatives – particularly for the communities of Mannar, Vavuniya, and Trincomalee.  (see Conclusions 9 and 22)	AE (UNDP CO, with oversight by EE (PMU) and UNDP Regional Office	By July 2021

<sup>78</sup> Numbering based on order of topic, not importance

#	Details	Responsible Party (Parties)	Timing
2	<p>The low mobilization of co-finance and underspend on the GCF grant is limiting project progress and needs to be addressed.</p> <p>[Dependent on release of tranche 4 of GCF grant]</p> <p>(see Conclusions 11 and 27)</p>	<p>EE (PMU) and AE (UNDP CO) – co-finance</p> <p>GCF grant spending - PMU</p>	<p>Immediate action required</p> <p>Immediate action, sustained to end of project</p>
3	<p>Project achievements in rehabilitation of the tank-cascades should be supported by policy dialogues, policy changes, institutional changes at the cascade level enabling multiple users of the cascades to come to a common form, and if necessary, the legal backup</p> <p>(see Conclusions 12 and 31)</p>	EE, MoA, FOs, CSOs	<p>Dialogues start by July 2021</p> <p>Policy revisions being drafted by April 2022</p>
Progress			
4	<p>The EE, RPs, PMU and sub-national stakeholders should recognise the very positive progress the project is making and ensure that the project's momentum continues for the remaining period of the project, to enhance the likelihood of post project sustainability, This should include more awareness raising on the benefits of inter-sectoral river basin approach, the innovative technologies being used also mainstreaming project lessons, such as the innovative interventions via the agricultural policy, irrigation and CSA guidelines. After the IE, workshops among beneficiaries at district level could be held to share lessons learned</p> <p>(see Conclusion 14)</p>	<p>Awareness raising (documenting lessons learned, using project communication systems to disseminate info, exchange visits from other communities) – EE (PMU), RPs</p> <p>Workshops – CSOs, sub-national GoSL departments and PMU</p>	<p>On-going from present to June 2024</p> <p>Q3 2021</p>
Project Implementation and Adaptive Management			
5	<p>The Project Board have an especially important role in project implementation and for mainstreaming. PB should aim to meet in person at least twice/ year (COVID-19 permitting), with more use of ICT to communicate more regularly.</p> <p>It would be beneficial if some PB meetings were held in the project river basin areas for site visits to see interventions and meet with beneficiaries. This will reinforce ownership, transparency and understanding of the win-win benefits of intersectoral approaches. This will contribute to maximizing the impacts during implementation and the likelihood of sustainability / scaling up post-project.</p> <p>Some meetings could be held virtually if COVID-19 conditions do not allow frequent in-person meetings. Field visits could also involve local MPs.</p>	Project Board and EE (PMU)	Biannually to June 2024

#	Details	Responsible Party (Parties)	Timing
	The project should also establish the IMCC and TAC, catalysing regular meetings, as recommended in the FP  (see Conclusion 19)		By Sept 2021
6	There should be a budget revision to focus as many of the funds as possible to support drinking water solutions – as the project is on track to attain most of the Output indicators but has underspent on the GCF funds and not mobilised all the promised co-financing.  (see Conclusion 24)	AE (UNDP CO) and EE (PMU)	By end 2021
7	Financial issues between the EE (PMU) and AE (UNDP CO) should be addressed and resolved  (see Conclusion 28)	EE (PMU) and AE (UNDP CO)	By July 2021
<b>Sustainability</b>			
8	The project should work with others to mitigate the increasing instances of conflict between humans and elephants (HEC), also other wild animal attacks (monkeys, giant squirrels, wild boar, insects), as CC affects availability of water in the forests and improved (perennial) crop growing offer an alternative forage. [For example, rehabilitation of upstream forest tanks to provide water for wildlife outside the VISs.]  The project requires to develop a sustainable solution to the risk raised by local cattle having lost their feeding grounds due to increased cultivation.  (see Conclusions 35 and 36)	PMU, EE, RPs, GoSL and independent wildlife organisations	By Dec 2021
9	Given the Objective, Outcome and Outputs of the project, in addition to the CI indicator, the project should use participatory methods to monitor their crop yields and food (in)security on a regular basis, also if possible hh incomes, as this reinforces the benefits of the project and enhances involvement, which will contribute to post-project sustainability.	EE (PMU), AE (UNDP CO) and CSOs	On-going to June 2024
<b>Gender (GAD)</b>			
10	All stakeholders should address the lack of gender balance in the Project Board, also the GoSL and UNDP project staff by positive discrimination  (see Conclusions 5 and 40)	All stakeholders	By Dec 2022
11	Extra attention is needed to increase youth participation, especially CSA farm practices, value-addition cottage industries and linking to markets to attract both male and female youths.	Sub-national level stakeholders and PMU	On-going to June 2024
<b>Innovativeness</b>			
12	Project team and stakeholders should continue advocating and publicising the benefits of the project's innovative approaches and technologies to scale-up adoption and enhance the availability and the range of technologies (e.g., conduct programs for increasing the ICT literacy of farmers; promoting renewable and sustainable energy (solar) as a CSA practice; develop mobile phone apps to disseminate agro-met and disaster early warnings)  (see Conclusions 41 and 42)	PB, EE (PMU), UNDP CO and sub-national level stakeholders	On-going to June 2024

#	Details	Responsible Party (Parties)	Timing
Replicability and Scalability			
13	Project visibility boards are seen rarely at the project sites in all the districts. Some of the direct beneficiaries, indirect beneficiaries, and outsiders of the project are extremely concerned about the transparency of the project activities, especially concerning the name of the project, financial allocation, implementing agency, contractor, and project duration etc. The visibility boards will increase the transparency of the project activities while ensuring the right to information of the public.	EE, field officers and CSOs	By August 2021
14	Develop sufficient value chains because the harvests of the seasonal and perennial crops will come by May 2021, including reactivating forward sales agreements between the producer groups.	EE	Starting immediately to end of project
15	Develop a central seed bank with district branches to ensure availability of drought resistant seeds for smallholder farmers and home gardens.	EE	May 2021- June 2024

## 6. Annexes

### Annex 1: Interim Evaluation ToR<sup>79</sup>

**Type of Contract:** Individual Contract

**Post Level:** International Consultant

**Duty Station:** Home based

**Languages Required:** English

**Starting Date:** 27<sup>th</sup> November 2020<sup>80</sup>

**Duration of Contract:** 30 working days (27<sup>th</sup> of November 2020 to 26<sup>th</sup> April 2021, extended to 30 June 2021)

#### 1. INTRODUCTION

This is the Terms of Reference (ToR) for the Interim Evaluation of the UNDP-supported GCF-financed “Strengthening the resilience of smallholder farmers in the Dry Zone to climate variability and extreme events through an integrated approach to water management” project, (PIMS#5752) implemented through the *Ministry of Irrigation*, which is to be undertaken in 2020. The project started in *June 2017* and is in its *4th* year of implementation. This ToR sets out the expectations for this Interim Evaluation.

#### 2. PROJECT BACKGROUND INFORMATION

The project was designed to support the Government of Sri Lanka to strengthen the resilience of smallholder farmers in Sri Lanka’s dry zone, who are facing increased risks of climate change. The project has adopted a river basin approach to deliver an integrated package of interventions for irrigation and drinking water in the Malwathu Oya, Mi Oya and Yan Oya watersheds in the dry zone. These watersheds cover the districts of Kurunegala, Puttalam, Anuradhapura, Mannar, Trincomalee, Vavuniya and Polonnaruwa.

The key objective of this project is to strengthen the resilience of smallholder farmers to climate variability and extreme weather events through an integrated approach to water management. The primary measurable benefits include resilient water and agricultural management for 770,500 direct beneficiaries and 1,179,800 indirect beneficiaries who will gain from improved water management, resilient agriculture practices, and the provision of climate and weather information. The project envisions initiating a paradigm shift in how water resources are managed, especially in the dry and intermediate climate zones of Sri Lanka. This shift is catalyzed through an integrated approach incorporating climate change concerns; understanding linkages across river basins/sub-river basins; and covering multiple uses of water including irrigation, agriculture, livelihoods, drinking water and disaster management. The Project’s bottom-up approach to integrated water management involves the preparation of integrated cascade water resource development and management plans. These plans cover a host of water management aspects including drinking water management, groundwater management, climate-smart agriculture development, catchment management plans, disaster preparedness plan, and, etc. These aspects correspond to the three outputs of the project while also recognizing the interconnectedness of the said outputs.

The three outputs of the project include,

**Output 1:** Upgrading and enhancing the resilience of village irrigation systems and scaling up climate-resilient farming practices in three river basins of the dry zone. This output mainly focuses on improved climate-risk informed water management for agricultural production in the selected river basins by upgrading the inter-connected cascade systems and associated agricultural practices. These

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<sup>79</sup> Excluding ToR annexes

<sup>80</sup> Due to COVID, the start of this IE was delayed by 4 months

interventions will also lead to restoration and improvements in surface and groundwater availability as well as quality.

**Output 2:** Enhancing climate-resilient, decentralized water supply and management solutions to provide access to safe drinking water to vulnerable communities. This output intends to deliver drinking water solutions to poor farmer households through a multi-pronged partnership approach involving source replenishment, enhanced storage capacity, improved supply of clean and safe drinking water and addressing root causes of water quality issues.

**Output 3:** Strengthening weather/climate and hydrological observing, forecasting and water management systems to enhance the adaptive capacity of smallholder farmers to droughts and floods. This includes providing access to weather/climate-related knowledge, advisories and early warning for storms and flooding including the planning of water release from irrigation tanks.

Resources from the Green Climate Fund, in conjunction with government co-financing, will invest in improving the community irrigation water infrastructure and associated agricultural practices, scaling-up decentralized drinking water systems, and strengthening early warnings and forecasting for flood-response and water management. The grant from the Green Climate Fund is USD 38.08 million, with a government co-financing contribution of USD 14 million.

The project is implemented using UNDP's National Implementation Modality (NIM), with significant UNDP support to implementation. The implementing partner (IP) for the project is the Ministry of Irrigation (formerly, the IP was the Ministry of Mahaweli Development and Environment). However, with the Presidential/ Parliamentary elections of 2020, the portfolio of irrigation and water management was shifted to a new Ministry, requiring the project to change its Implementing Partner). The Project Board is responsible for providing overall direction, and consists of a wide group of project stakeholders including the Ministry of Irrigation, UNDP, the Department of External Resources, the Department of National Planning, and several Responsible Parties to the project, including the Department of Agrarian Development, the Department of Agriculture, the Department of National Community Water Supply, the National Water Supply and Drainage Board, and the Ministry of Disaster Management.

#### **COVID-19 Context:**

In March 2020, in response to growing numbers of COVID-19 cases in Sri Lanka, an island-wide curfew was imposed. A Presidential Task Force was established to combat the health crisis and its ripple effects on different sectors of the economy, to ensure that essential services continued unhindered. The agriculture sector was one of the worst affected sectors by the pandemic and subsequent lockdowns, resulting in breakdowns of supply and value chains during peak harvesting periods and the price collapses of agricultural produce.

Sustaining agricultural productivity was considered critical to ensuring food security and against this backdrop, the project, together with the Ministry of Agriculture, rolled out climate-smart agricultural support to poor urban and suburban households in select districts. The project promoted urban agriculture, particularly among women farmers, through the distribution of planting material and farming equipment, along with the required training for 2,600 people.

During the South-West Monsoon season this year, it became apparent that the districts that were likely to have the highest incidence of COVID-19 cases coincided with the districts that were also vulnerable to flooding during the monsoon. The project supported the operationalization of health and safety guidelines issued by the Ministry of Health, delivered 10,000 surgical masks and 30 infrared thermometers to the Disaster Management Center, to be distributed to disaster relief centres, search and rescue teams and to those affected by the monsoons. Also, together with the Sri Lanka Red Cross Society, the project team organized additional resources for flood preparedness and response, including

by mobilizing volunteers to conduct awareness programmes on camp management amid a pandemic and towards providing facilities for screening, disinfecting (handwashing) and personal safety in the camps.

The project supported the Disaster Management Centre (DMC) and the National Disaster Relief Services Centre in the development of an emergency preparedness plan and coordination arrangement for the monsoon season. The project also provided Zoom software facilities to the DMC to facilitate coordination and communications amongst stakeholders at a crucial time. In support of risk assessment and analysis, the project developed resource maps required for emergency planning and response in 40 high-risk areas, which were supplied to the relevant authorities.

Moreover, it facilitated preparedness and response activities in schools in the project locations, benefitting over 4,100 students, through the provision of handwashing facilities, basic hygiene items, first aid training, and COVID-19 awareness and hygiene promotion programmes, to reduce transmission risk. Similar assistance was provided to government officers within the project locations, to ensure that staff can practice safe hygiene.

#### Details of the Impact of COVID-19 on Project Implementation and other Challenges

One of the persistent challenges that the project team has faced, which has been exacerbated in recent months due to the pandemic, is in mobilizing the co-financing component of the project. A total of USD 14 million was due to be committed by the Government of Sri Lanka towards this project. The Sri Lankan economy continues to face the brunt of the COVID-19 crisis; the growth dynamics were dampened even before the onset of the crisis, the closing of international borders badly affected key sectors such as tourism and the apparel export sector, the country's highest foreign exchange-earners and the remittance earnings have also sharply declined. Given Sri Lanka's weakened fiscal position, it is less likely that the government will be able to meet its obligations for co-financing under this project.

The first wave of the COVID-19 outbreak coincided with the onset of the Yala cultivation season earlier this year. A nation-wide lockdown and travel restrictions that lasted several months severely impeded project interventions that had been planned with local communities in preparation for the cultivation season. The latest localized outbreak is taking place at the start of the Maha cultivation season. This, together with the fact that lower than usual levels of rainfall are expected this season will once again disrupt project activities. COVID-19-related import restrictions and the increasing price of inputs for project activities have prevented the project from delivering the interventions as planned and poses challenges to reaching the expected number of beneficiaries.

The water management advisories and disaster preparedness component of the project (which was to be facilitated through the installation of sensors and gauges) is dependent on downstream cascade development activities that were planned for 2020. These downstream initiatives were scheduled to commence after the completion of upstream irrigation development activities, which were delayed on account of the pandemic. The delays in one component of the project are having knock-on effects on other components, such as the forecasting and the issuance of water management advisories. Additionally, the downstream activities are also purely dependent on co-financing from the government, which UNDP has so far been challenging.

One of the key project outputs aims to enhance climate-resilient, decentralized water supply to provide year-round access to clean water for vulnerable communities in water-scarce regions of the country. It was decided to construct small-scale community water supply schemes. However, due to delays in commencing the project, water sources that were originally assigned to the project were allocated to other projects, which compelled this project to identify new water sources. The search was initiated in remote areas of the dry zone while considering communities with the highest need for water and water source investigations were carried out in the selected locations. Unfortunately, the test results showed

inadequate water quality and inadequate yields. The project screened over 160 locations but only a fraction of them was deemed suitable for the water supply schemes and therefore this intervention could not proceed as originally planned. With this background, UNDP has initiated discussions with GCF on challenges in achieving project objectives.

### 3. OBJECTIVES OF THE INTERIM EVALUATION

The Interim Evaluation will assess progress towards the achievement of the project objectives and outcomes as specified in the Funded Activity Agreement (FAA), Funding Proposal (FP) and Project Document, and assess early signs of project success or failure with the goal of identifying the necessary changes to be made in order to set the project on-track to achieve its intended results. The Interim Evaluation will also review the project's strategy and its risks to sustainability.

The Interim Evaluation team will assess implementation of the project and its alignment with the FAA<sup>[1]</sup> obligations and progress towards the achievement of the project objectives and outcomes as specified in the Project Document. The evaluation will assess early signs of project success or failure with the goal **of identifying the necessary changes** to be made in order to set the project on-track to achieve its intended results. The Interim Evaluation will also assess the following:

- Implementation and adaptive management
- Risks to sustainability
- Relevance, effectiveness and efficiency of projects and programmes;
- Coherence in climate finance delivery with other multilateral entities;
- Gender equity;
- Country ownership of projects and programmes;
- Innovativeness in results areas (extent to which interventions may lead to paradigm shift towards low-emission and climate resilient development pathways);
- Replication and scalability – the extent to which the activities can be scaled up in other locations within the country or replicated in other countries (this criterion, which is considered in document GCF/B.05/03 in the context of measuring performance could also be incorporated in independent evaluations); and
- Unexpected results, both positive and negative.

### 4. INTERIM EVALUATION APPROACH & METHODOLOGY

The interim evaluation of CRIWMP will be carried out by a team of two consultants; international and national, by providing evidence-based information that is credible, reliable and useful.

The team will review all relevant sources of information including documents prepared during the preparation phase (i.e. baseline Funding proposal submitted to the GCF, the Project Document, project reports including Annual Performance Reports, Quarterly Progress Reports, UNDP Environmental & Social Safeguard Policy, project budget revisions, records of surveys conducted, national strategic and legal documents, stakeholder maps, and any other materials that the team considers useful for this evidence-based review).

The two consultants in the team are expected to follow a collaborative and participatory approach ensuring close engagement with the Project Team, Implementing Partner, National Designated Authority (NDA) focal point, relevant government counterparts (responsible parties), the UNDP Country Office, Regional Technical Advisers, and other principal stakeholders, Civil Society Organizations (CSOs) engaged in, and other relevant stakeholders including beneficiaries etc., and ensure their perspectives are essentially captured in the final Independent Evaluation (IE).

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<sup>[1]</sup> FAA: [https://info.undp.org/docs/pdc/Documents/LKA/Executed\\_FAA\\_UNDP\\_SriLanka\\_07062017.pdf](https://info.undp.org/docs/pdc/Documents/LKA/Executed_FAA_UNDP_SriLanka_07062017.pdf)

Engagement of stakeholders is vital to a successful Interim Evaluation. Stakeholder involvement should include (where possible) surveys/questionnaires, focus groups, interviews with stakeholders who have project responsibilities, including but not limited to executing agencies, senior officials and task team/component leaders, key experts and consultants in the subject area, Project Board, project stakeholders, local government, CSOs, project beneficiaries, etc. Additionally, the Interim Evaluation team is expected to conduct field missions to project sites (if safe to do so), which is to be decided in consultation with the project team. Data collection will be used to validate evidence of results and assessments (including but not limited to: assessment of Theory of Change, activities delivery, and results/changes occurred).

The final Interim Evaluation report should describe the full evaluation approach taken and the rationale for the approach making explicit the underlying assumptions, challenges, strengths and weaknesses about the methods and approach of the review. The final report must also describe any limitations encountered by the Interim Evaluation team during the evaluation process, including limitations of the methodology, data collection methods, and any potential influence of limitation on how findings may be interpreted, and conclusions drawn. Limitations include, among others: language barriers, inaccessible project sites, issues with access to data or verification of data sources, issues with availability of interviewees, methodological limitations to collecting more extensive or more representative qualitative or quantitative evaluation data, deviations from planned data collection and analysis set out in the ToR and Inception Report, etc. Efforts made to mitigate the limitations should also be included in the Interim Evaluation report.

As of 11 March 2020, The World Health Organization (WHO) declared COVID-19 a global pandemic as the new coronavirus rapidly spread to all regions of the world. Travel to the country has been restricted since late March 2020, with regional restrictions to travel in-country due to localized outbreaks. Therefore, the international consultant with the support of the national consultant may require the use of remote interview methods, extended desk reviews, data analysis, surveys and evaluation questionnaires. These approaches and methodologies should be detailed in the Inception Report and agreed with the Commissioning Unit.

The international consultant will be engaged to work remotely with national consultant's support in the field if it is safe for them to operate and travel. An equally qualified and independent national consultant hired, will conduct interviews and surveys using appropriate tools and innovative methodologies under the supervision of the International Consultant, considering the state of prevailing COVID19 pandemic context in the country.

## **5. DETAILED SCOPE OF THE INTERIM EVALUATION**

The Interim Evaluation team will assess the following four categories of project progress.

### **i. Project Strategy**

#### Project design:

- Review the problem addressed by the project and the underlying assumptions. Review the effect of any incorrect assumptions or changes to the context to achieving the project results as outlined in the Project Document.
- Review the relevance of the project strategy and assess whether it provides the most effective route towards expected/intended results. Were lessons from other relevant projects properly incorporated into the project design?
- Review how the project addresses country priorities. Review country ownership. Was the project concept in line with the national sector development priorities and plans of the country (or of participating countries in the case of multi-country projects)?
- Review decision-making processes: were perspectives of those who would be affected by project decisions, those who could affect the outcomes, and those who could contribute information or other resources to the process, taken into account during project design processes?

- Review conditions and covenants of the FAA with special reference to clause 9.02 into the project design process
- Review the extent to which relevant gender issues were raised in the project design. See Annex H of *Guidance for Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects* for further guidelines.
- If there are major areas of concern, recommend areas for improvement.

Results Framework/ Log frame:

- Undertake a critical analysis of the project's log frame indicators and targets, assess how "SMART" the midterm and end-of-project targets are (Specific, Measurable, Attainable, Relevant, Time-bound), and suggest specific amendments/revisions to the targets and indicators as necessary.
- Are the project's objectives and outcomes or components clear, practical, and feasible within its time frame?
- Examine if progress so far has led to or could in the future catalyse beneficial development effects (i.e. income generation, gender equality and women's empowerment, improved governance, etc.) that should be included in the project results framework and monitored on an annual basis.
- Ensure broader development and gender aspects of the project are being monitored effectively. Develop and recommend SMART 'development' indicators, including sex-disaggregated indicators and indicators that capture development benefits.
- Evaluate the Theory of Change (ToC) proposed by the project during the inception and design phases in comparison to the approach, relevance, actions, interventions, practicality, and current context. Foresee the way forward and propose necessary adjustments.

**ii. Relevance, Effectiveness and Efficiency**

- Were the context, problem, needs and priorities well analyzed and reviewed during project initiation?
- Are the planned project objectives and outcomes relevant and realistic to the situation on the ground?
- Is the project Theory of Change (ToC) and intervention logic coherent and realistic? Does the ToC and intervention logic hold or does it need to be adjusted?
- Do outputs link to intended outcomes which link to broader paradigm shift objectives of the project?
- Are the planned inputs and strategies identified realistic, appropriate and adequate to achieve the results? Were they sequenced sufficiently to efficiently deliver the expected results?
- Are the outputs being achieved in a timely manner? Is this achievement supportive of the ToC and pathways identified?
- What and how much progress has been made towards achieving the overall outputs and outcomes of the project (including contributing factors and constraints)?
- To what extent is the project able to demonstrate changes against the baseline (assessment in approved Funding Proposal) for the GCF investment criteria (including contributing factors and constraints)?
- How realistic are the risks and assumptions of the project?
- How did the project deal with issues and risks in implementation?
- To what extent did the project's M&E data and mechanism(s) contribute to achieving project results?
- Have project resources been utilized in the most economical, effective and equitable ways possible (considering value for money; absorption rate; commitments versus disbursements and projected commitments; co-financing; etc.)?
- Are the project's governance mechanisms functioning efficiently?
- To what extent did the design of the project help or hinder achieving its own goals?
- Were there clear objectives, ToC and strategy? How were these used in performance management and progress reporting?

- Were there clear baselines indicators and/or benchmark for performance measurements? How were these used in project management? To what extent and how the project applies adaptive management?
- What, if any, alternative strategies would have been more effective in achieving the project objectives?

### iii. Progress Towards Results

#### Progress Towards Outcomes and Outputs Analysis:

- Review the log frame indicators against progress made towards the end-of-project targets using the Progress Towards Results Matrix and colour code progress in a “traffic light system” based on the level of progress achieved; assign a rating on progress for each outcome; make recommendations from the areas marked as “Not on target to be achieved” (red).

**Table. Progress Towards Results Matrix (Achievement of outcomes against End-of-project Targets)**

Project Strategy	Indicator <sup>[3]</sup>	Baseline Level <sup>[4]</sup>	Level in 1 <sup>st</sup> PIR (self-reported)	Midterm Target <sup>[5]</sup>	End-of-project Target	Midterm Level & Assessment <sup>[6]</sup>	Achievement Rating <sup>[7]</sup>	Justification for Rating
<b>Fund Level Impact:</b>	Indicator:							
<b>Outcome 1:</b>	Indicator:							
	Indicator:							
<b>Output</b>	Indicator:							
<b>Output</b>	Indicator:							
<b>Outcome 2:</b>	Indicator:							
	Indicator:							
<b>Output</b>	Indicator:							
<b>Output</b>	Indicator:							
<b>Etc.</b>								

#### **Indicator Assessment Key**

Green= Achieved	Yellow= On target to be achieved	Red= Not on target to be achieved
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In addition to the progress towards outcomes and outputs analysis:

- Identify remaining barriers to achieving the project objective in the remainder of the project.
- By reviewing the aspects of the project that have already been successful, identify ways in which the project can further expand these benefits.

### iv. Project Implementation and Adaptive Management

#### Management Arrangements:

- Review overall effectiveness of project management as outlined in the Project Document. Have changes been made and are they effective? Are responsibilities and reporting lines clear? Is decision-making transparent and undertaken in a timely manner? Recommend areas for improvement.

<sup>[3]</sup> Populate with data from the Log-frame and score cards.

<sup>[4]</sup> Populate with data from the Project Document

<sup>[5]</sup> If available

<sup>[6]</sup> Colour code this column only

<sup>[7]</sup> Use the 6-point Progress Towards Results Rating Scale: HS, S, MS, MU, U, HU

- Review the quality of execution of the Executing Agency/Implementing Partner(s) and recommend areas for improvement.
- Review the quality of support provided by UNDP and recommend areas for improvement.

#### Work Planning:

- Review any delays in project start-up and implementation, identify the causes and examine if they have been resolved.
- Are work-planning processes results-based? If not, suggest ways to re-orientate work planning to focus on results?
- Examine the use of the project's results framework/ log frame as a management tool and review any changes made to it since project start.

#### Finance and co-finance:

- Consider the financial management of the project, with specific reference to the cost-effectiveness of interventions.
- Review the changes to fund allocations as a result of budget revisions and assess the appropriateness and relevance of such revisions.
- Does the project have the appropriate financial controls, including reporting and planning, that allow management to make informed decisions regarding the budget and allow for timely flow of funds?
- Informed by the co-financing monitoring table to be filled out, provide commentary on co-financing: is co-financing being used strategically to help the objectives of the project? Is the Project Team meeting with all co-financing partners regularly in order to align financing priorities and annual work plans?
- Assess factors that contributed to low/high expenditure rate

#### Coherence in climate finance delivery with other multilateral entities

- Who are the partners of the project and how strategic are they in terms of capacities and commitment?
- Is there coherence and complementarity by the project with other actors for local other climate change interventions?
- To what extent has the project complimented other on-going local level initiatives (by stakeholders, donors, governments) on climate change adaptation or mitigation efforts?
- How has the project contributed to achieving stronger and more coherent integration of shift to increased climate resilient sustainable development (GCF RMF/PMF Paradigm Shift objectives)? Please provide concrete examples and make specific suggestions on how to enhance these roles going forward.

#### Project-level Monitoring and Evaluation Systems:

- Review the monitoring tools currently being used: Do they provide the necessary information? Do they involve key partners? Are they aligned or mainstreamed with national systems? Do they use existing information? Are they efficient? Are they cost-effective? Are additional tools required? How could they be made more participatory and inclusive?
- Examine the financial management of the project monitoring and evaluation budget. Are sufficient resources being allocated to monitoring and evaluation? Are these resources being allocated effectively?

#### Stakeholder Engagement:

- Project management: Has the project developed and leveraged the necessary and appropriate partnerships with direct and tangential stakeholders?

- Participation and country-driven processes: Do local and national government stakeholders support the objectives of the project? Do they continue to have an active role in project decision-making that supports efficient and effective project implementation?
- Participation and public awareness: To what extent has stakeholder involvement and public awareness contributed to the progress towards achievement of project objectives?

#### Social and Environmental Standards (Safeguards)

- Validate the risks identified in the project's most current SESP/ESIA, and those risks' ratings; are any revisions needed?
- Summarize and assess the revisions made since Board Approval (if any) to:
  - The project's overall safeguards risk categorization.
  - The identified types of risks<sup>[8]</sup> (in the SESP).
  - The individual risk ratings (in the SESP).
- Describe and assess progress made in the implementation of the project's social and environmental management measures as outlined in the SESP submitted at the Funding Proposal stage (and prepared during implementation, if any), including any revisions to those measures. Such management measures might include Environmental and Social Management Plans (ESMPs) or other management plans, though can also include aspects of a project's design; refer to Question 6 in the SESP template for a summary of the identified management measures.

A given project should be assessed against the version of UNDP's safeguards policy that was in effect at the time of the project's approval.

#### Reporting:

- Assess how adaptive management changes have been reported by the project management and shared with the Project Board.
- Assess how well the Project Team and partners undertake and fulfil GCF reporting requirements (i.e. how have they addressed poorly-rated APRs, if applicable?)
- Assess how lessons derived from the adaptive management process have been documented, shared with key partners and internalized by partners.
- Assess the efficiency, timeliness, and adequacy of reporting requirements

#### Communications:

- Review internal project communication with stakeholders: Is communication regular and effective? Are there key stakeholders left out of communication? Are there feedback mechanisms when communication is received? Does this communication with stakeholders contribute to their awareness of project outcomes and activities and investment in the sustainability of project results?
- Review external project communication: Are proper means of communication established or being established to express the project progress and intended impact to the public (is there a web presence, for example? Or did the project implement appropriate outreach and public awareness campaigns?)
- For reporting purposes, write one half-page paragraph that summarizes the project's progress towards results in terms of contribution to sustainable development benefits, as well as global environmental benefits.

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<sup>[8]</sup> Risks are to be labeled with both the UNDP SES Principles and Standards, and the GEF's "types of risks and potential impacts": Climate Change and Disaster; Disadvantaged or Vulnerable Individuals or Groups; Disability Inclusion; Adverse Gender-Related impact, including Gender-based Violence and Sexual Exploitation; Biodiversity Conservation and the Sustainable Management of Living Natural Resources; Restrictions on Land Use and Involuntary Resettlement; Indigenous Peoples; Cultural Heritage; Resource Efficiency and Pollution Prevention; Labor and Working Conditions; Community Health, Safety and Security.

**v. Sustainability**

- Validate whether the risks identified in the Project Document, APRs and the ATLAS Risk Management Module are the most important and whether the risk ratings applied are appropriate and up to date. If not, explain why.
- In addition, assess the following risks to sustainability:

Financial risks to sustainability:

- What is the likelihood of financial and economic resources not being available once the GCF assistance ends (consider potential resources can be from multiple sources, such as the public and private sectors, income generating activities, and other funding that will be adequate financial resources for sustaining project's outcomes)?

Socio-economic risks to sustainability:

- Are there any social or political risks that may jeopardize sustainability of project outcomes? What is the risk that the level of stakeholder ownership (including ownership by governments and other key stakeholders) will be insufficient to allow for the project outcomes/benefits to be sustained? Do the various key stakeholders see that it is in their interest that the project benefits continue to flow? Is there sufficient public / stakeholder awareness in support of the long-term objectives of the project? Are lessons learned being documented by the Project Team on a continual basis and shared/ transferred to appropriate parties who could learn from the project and potentially replicate and/or scale it in the future?

Institutional Framework and Governance risks to sustainability:

- Do the legal frameworks, policies, governance structures and processes pose risks that may jeopardize sustenance of project benefits? While assessing this parameter, also consider if the required systems/ mechanisms for accountability, transparency, and technical knowledge transfer are in place.

Environmental risks to sustainability:

- Are there any environmental risks that may jeopardize sustenance of project outcomes?

**vi. Country Ownership**

- To what extent is the project aligned with national development plans, national plans of action on climate change, or sub-national policy as well as projects and priorities of the national partners?
- How well is country ownership reflected in the project governance, coordination and consultation mechanisms or other consultations?
- To what extent are country level systems for project management or M&E utilized in the project?
- What level and types of involvement for all is the project as implemented responsive to local challenges and relevant/appropriate/strategic in relation to SDG indicators, National indicators, GCF RMF/PMF indicators, AE indicators, or other goals?
- Were the modes of deliveries of the outputs appropriate to build essential/necessary capacities, promote national ownership and ensure sustainability of the result achieved?

**vii. Gender equity**

- Does the project only rely on sex-disaggregated data per population statistics?
- Are financial resources/project activities explicitly allocated to enable women to benefit from project interventions?
- Does the project account in activities and planning for local gender dynamics and how project interventions affect women as beneficiaries?
- Do women as beneficiaries know their rights and/or benefits from project activities/interventions?
- How do the results for women compare to those for men?
- Is the decision-making process transparent and inclusive of both women and men?

- To what extent are female stakeholders or beneficiaries satisfied with the project gender equality results?
- Did the project sufficiently address cross cutting issues including gender?
- How does the project incorporate gender in its governance or staffing?

**viii. Innovativeness in results areas**

- What role has the project played in the provision of "thought leadership," "innovation," or "unlocked additional climate finance" for climate change adaptation/mitigation in the project and country context? Please provide concrete examples and make specific suggestions on how to enhance these roles going forward.

**ix. Unexpected results, both positive and negative**

- What has been the project's ability to adapt and evolve based on continuous lessons learned and the changing development landscape? Please account for factors both within the AE/EE and external.
- Can any unintended or unexpected positive or negative effects be observed as a consequence of the project's interventions?
- What factors have contributed to the unintended outcomes, outputs, activities, results?

**x. Replication and Scalability**

- What are project lessons learned, failures/lost opportunities to date? What might have been done better or differently?
- How effective were the exit strategies and approaches to phase out assistance provided by the project including contributing factors and constraints?
- What factors of the project achievements are contingent on specific local context or enabling environment factors?
- Are the actions and results from project interventions likely to be sustained, ideally through ownership by the local partners and stakeholders?
- What are the key factors that will require attention in order to improve prospects of sustainability, scalability or replication of project outcomes/outputs/results?

**Conclusions & Recommendations**

The Interim Evaluation team will include a section of the report setting out the evaluation's evidence-based conclusions, in light of the findings. Explain whether the project will be able to achieve planned development objective and outcomes by the end of implementation.

Recommendations should be succinct suggestions for critical intervention that are specific, measurable, achievable, and relevant. A recommendation table should be put in the report's executive summary.

The Interim Evaluation team should make no more than 15 recommendations total.

**Ratings**

The Interim Evaluation team will include its ratings of the project's results and brief descriptions of the associated achievements in an *Interim Evaluation Ratings & Achievement Summary Table* in the Executive Summary of the Interim Evaluation report. See Annex E for ratings scales. No rating on Project Strategy and no overall project rating is required.

**Table. Interim Evaluation Ratings & Achievement Summary Table for the Project Strengthening the resilience of smallholder farmers in the Dry Zone to climate variability and extreme events through an integrated approach to water management**

<b>Measure</b>	<b>Interim Evaluation Rating</b>	<b>Achievement Description</b>
<b>Project Strategy</b>	N/A	
<b>Progress Towards Results</b>	Objective Achievement Rating: (rate 6 pt. scale)	
	Outcome 1 Achievement Rating: (rate 6 pt. scale)	
	Outcome 2 Achievement Rating: (rate 6 pt. scale)	
	Outcome 3 Achievement Rating: (rate 6 pt. scale)	
	Etc.	
<b>Project Implementation &amp; Adaptive Management</b>	(rate 6 pt. scale)	
<b>Sustainability</b>	(rate 4 pt. scale)	

## 6. TIMEFRAME

The total duration of the Interim Evaluation will be maximum 30 working days over a time period of approximately 22 weeks and shall not exceed five months from when the consultant(s) are hired. The tentative Interim Evaluation timeframe is as follows:

<b>ACTIVITY</b>	<b>NUMBER OF WORKING DAYS</b>	<b>COMPLETION DATE</b>
Document review and preparing Interim Evaluation Inception Report (Inception Report due no later than 2 weeks before the evaluation mission)	2-4 days	07 <sup>th</sup> December 2020
Interim Evaluation mission: stakeholder meetings, interviews, field visits.	7--10 days	07 <sup>th</sup> January 2021
Presentation of initial findings - last day of the Interim Evaluation mission	1 day	08 <sup>th</sup> January 2021
Preparing draft report (due within 3 weeks of the Interim Evaluation mission)	5-10 days	29 <sup>th</sup> January 2021
Finalization of Interim Evaluation report/ Incorporating audit trail from feedback on draft report (due within 1 week of receiving UNDP comments on the draft)	3-5 days	28 <sup>th</sup> February 2021

Options for site visits should be provided in the Inception Report.

## 7. INTERIM EVALUATION DELIVERABLES

#	Deliverable	Description	Timing	Responsibilities
1	<b>Interim Evaluation Inception Report</b>	Interim Evaluation team clarifies objectives and methods of the evaluation	No later than 2 weeks before the evaluation mission	Interim Evaluation team submits to the Commissioning Unit and project management
2	<b>Presentation</b>	Initial Findings	End of evaluation mission	Interim Evaluation Team presents to project management and the Commissioning Unit
3	<b>Draft Interim Evaluation Report</b>	Full report (using guidelines on content outlined in Annex B) with annexes	Within 3 weeks of the evaluation mission	Sent to the Commissioning Unit, reviewed by RTA, Project Coordinating Unit, NDA focal point
4	<b>Final Interim Evaluation Report*</b>	Revised report with audit trail detailing how all received comments have (and have not) been addressed in the final report	Within 1 week of receiving UNDP comments on draft	Sent to the Commissioning Unit

\* The final Interim Evaluation report must be in English. If applicable, the Commissioning Unit may choose to arrange for a translation of the report into a language more widely shared by national stakeholders.

## 8. INTERIM EVALUATION ARRANGEMENTS

The principal responsibility for managing this Interim Evaluation resides with the Commissioning Unit. The Commissioning Unit for this project's Interim Evaluation is UNDP Sri Lanka.

The commissioning unit will contract the consultants and ensure the timely provision of travel arrangements within the country for the Interim Evaluation team. The project team will be responsible for liaising with the Interim Evaluation team to provide all relevant documents, set up stakeholder interviews, and arrange field visits.

## 9. TEAM COMPOSITION

A team of two independent consultants will conduct the Interim Evaluation – one International Consultant/ Team Leader (with experience and exposure to GCF/ GEF projects and evaluations in other regions globally) and one National Expert based in Sri Lanka. The International Consultant will operate remotely but will lead the evaluation overall in collaboration with the national consultant.

The International Consultant will be responsible for deciding on the evaluation methodology, based on discussions with the project team and any restrictions as a result of the COVID-19 situation in-country. The International Consultant will present this methodology (as part of the inception report) with a subsequent discussion with the country office to agree on way forward. The development of the data collection methodologies and tools (including questionnaires) will be led by the International Consultant, with support from the National Expert. Following the literature review, stakeholder consultations and field data collection, the International Consultant will lead the process of presenting the preliminary findings to the project stakeholders, which will be followed by the development of the draft interim evaluation report. The International Consultant will be responsible for finalizing the report based on comments received.

The International Consultant will receive in-country support from the National Expert, who will be responsible for organizing and conducting field missions, interviews and field data collection. The National Consultant will be responsible for arranging key informant interviews and focus group discussions with a wide range of stakeholders, which should be arranged virtually if possible, to facilitate

the participation of the International Consultant. The National Expert will provide technical and administrative support to the International Consultant at the various stages of the Interim Evaluation, including data collection, desk reviews, presentations and drafting of the report.

The consultants cannot have participated in the project preparation, formulation, and/or implementation (including the writing of the Project Document) and should not have a conflict of interest with project's related activities.

Offers from interested applicants will be evaluated according to the Combined Scoring method – where the educational background and experience on similar assignments will be weighted at 70% and the price proposal will weigh as 30% of the total scoring. The applicant receiving the Highest Combined Score, that has also accepted UNDP's General Terms and Conditions, will be awarded the contract.

The selection of consultants will be aimed at maximizing the overall "team" qualities in the following areas:

<b>Evaluation and Assessment Criteria:</b>	Weight
<b>Technical Competencies</b>	<b>70</b>
Master's degree in natural resource management, environmental sciences, development studies, Project Management or other closely related field AND at least ten (10) years of experience in relevant technical area (25%)	17.5
Recent experience with result-based management evaluation methodologies (10%)	7
Project evaluation/review experiences with the United Nations system including GEF/GCF will be considered an asset (10%)	7
Competence in adaptive management, as applied to integrated water management, agriculture and climate change adaptation (25%)	17.5
Work experience in a developing country context (10%);	7
Demonstrated understanding of issues related to gender and climate change adaptation; experience in gender sensitive evaluation and analysis (15%);	10.5
Excellent knowledge of English. Knowledge of local languages by the National Consultant would be an asset (5%)	3.5
<b>Financial (Lower Offer/Offer*100)</b>	<b>30</b>
<b>Total Score Technical score + Financial Score</b>	<b>70+30</b>

The required qualifications of the International and National Consultant are as follows:

#### Education

- A Master's degree in, natural resource management Environmental Sciences, Development Studies, Project Management or other closely related field.

#### Experience

- Recent experience with result-based management evaluation methodologies;
- Experience applying SMART indicators and reconstructing or validating baseline scenarios;
- Competence in adaptive management, as applied to integrated water management, agriculture and climate change adaptation;
- Experience in evaluating projects;
- Experience working in developing countries;
- Work experience in relevant technical areas for at least 10 years;
- Demonstrated understanding of issues related to gender and climate change adaptation; experience in gender sensitive evaluation and analysis.
- Excellent communication skills;
- Demonstrable analytical skills;

- Project evaluation/review experiences within United Nations system will be considered an asset;
- Experience with implementing evaluations remotely will be considered an asset.

#### **10. EVALUATOR ETHICS**

This Interim Evaluation will be conducted in accordance with the principles outlined in the UNEG 'Ethical Guidelines for Evaluation'. The Interim Evaluation team must safeguard the rights and confidentiality of information providers, interviewees and stakeholders through measures to ensure compliance with legal and other relevant codes governing collection of data and reporting on data. The Interim Evaluation team must also ensure security of collected information before and after the Interim Evaluation and protocols to ensure anonymity and confidentiality of sources of information where that is expected. The information, knowledge and data gathered in the Interim Evaluation process must also be solely used for the Interim Evaluation and not for other uses without the express authorization of UNDP and partners.

#### **11. PAYMENT MODALITIES AND SPECIFICATIONS**

Payments will be based on milestones certified by the UNDP Country Office. Payment schedule will be as follows and milestones are required to be delivered in close coordination with the National Consultant hired for the same purpose;

- 20% payment upon satisfactory delivery of the final Interim Evaluation Inception Report and approval by the Commissioning Unit
- 50% payment upon satisfactory delivery of the draft Interim Evaluation report
- 30% payment upon satisfactory delivery of the final Interim Evaluation report and approval by the Commissioning Unit, Regional Technical Advisor (RTA) and Principal Technical Advisor (PTA) – via signatures on the Interim Evaluation Report Clearance form) and completed Audit Trail

#### **12. APPLICATION PROCESS<sup>[9]</sup>**

The International Consultant/ Team Leader for this Interim Evaluation will be selected from the GPN/ExpRes roster of vetted consultants. The selection process will follow standard UNDP procurement processes.

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<sup>[9]</sup> Engagement of the consultants should be done in line with guidelines for hiring consultants in the POPP: <https://info.undp.org/global/popp/Pages/default.aspx>

## Annex 2: Interim Evaluation Evaluative Matrix (evaluation criteria with key questions, indicators, sources of data, and methodology)

	<b>Evaluative Questions</b>	<b>Indicators Indicators</b>	<b>Sources Sources</b>	<b>Methodology</b>
	<b>Project Strategy: To what extent is the project strategy relevant to country priorities, country ownership, and the best route towards expected results?</b>			
1	Does the project remain aligned to Sri Lanka's National Climate Change Policy, National Climate Change Adaptation Strategy and Action Plan, the commitments in the INDC and national development priorities and programmes?	Level of alignment to national efforts to address CCA needs	Project Funding Proposal, project APRs, project staff and project board members.	Document analysis, interviews with project staff, interviews with board members
2	To what extent are the project outcomes still congruent (aligned) with the UNDP country programme?	Level of alignment to national efforts to address CCA needs	Project Funding Proposal, project APRs, project staff and project board members.	Document analysis, interviews with project staff, interviews with board members
3	To what extent are the project outcomes still congruent (aligned) with the GCF?	Level of alignment to global efforts to address CCA needs	Project Funding Proposal, project APRs, project staff and project board members.	Document analysis, interviews with project staff, interviews with board members
	<b>Progress Towards Results: To what extent have the expected outcomes and objectives of the project been achieved thus far?</b>			
4	Objective – Extent to which vulnerable households, communities and Businesses use improved strategies and activities to respond to climate variability and climate change.	Project delivery and level of achievement, respondent perception; (quantitative and qualitative evidence)	Project Funding Proposal, project APRs, project staff, project board members, partner organisations and beneficiaries.	Document analysis. Interviews with: project staff; board members; partner organisations; beneficiaries. Field observations.
5	Output 1: Village irrigation infrastructure and capacities of smallholder farmers strengthened for climate-resilient water	Project delivery and level of achievement, respondent perception; (quantitative and qualitative evidence)	Project Funding Proposal, project APRs, project staff, project board members, partner organisations and beneficiaries.	Document analysis. Interviews with: project staff; board members; partner organisations; beneficiaries. Field observations
6	Output 2: Improved access to safe and reliable drinking water through supply systems able to withstand climate change and variability	Project delivery and level of achievement, respondent perception; (quantitative and qualitative evidence)	Project Funding Proposal, project APRs, project staff, project board members, partner organisations and beneficiaries.	Document analysis. Interviews with: project staff; board members; partner organisations; beneficiaries. Field observations
7	Output 3: Capacity of Dry Zone farmers strengthened to use weather and climate information for agricultural and water management	Project delivery and level of achievement, respondent perception; (quantitative and qualitative evidence)	Project Funding Proposal, project APRs, project staff, project board members, partner organisations and beneficiaries.	Document analysis. Interviews with: project staff; board members; partner organisations; beneficiaries. Field observations

	<b>Evaluative Questions</b>	<b>Indicators</b>	<b>Sources</b>	<b>Methodology</b>
	<b>Project Implementation and Adaptive Management: Has the project been implemented efficiently, cost-effectively, and been able to adapt to any changing conditions thus far? To what extent are project-level monitoring and evaluation systems, reporting, and project communications supporting the project's implementation?</b>			
8	To what extent are the project management arrangements appropriate, efficient and clear?	Project delivery and level of achievement, financial analysis, respondent perceptions	Project Funding Proposal, project APRs, project staff, project board members, partner organisations and beneficiaries.	Document analysis. Interviews with: project staff; board members; partner organisations; beneficiaries.
9	Has the project management been able to adapt to any changing conditions to improve the efficiency of project implementation?	Project delivery and level of achievement, financial analysis, respondent perceptions	Project APRs, project staff, project board members, partner organisations and beneficiaries.	Document analysis. Interviews with: project staff; board members; partner organisations; beneficiaries.
10	Is the M&E plan practical and sufficient? (M&E design) <i>(including: Are stakeholders aware of M&amp;E? Do beneficiaries contribute to participatory M&amp;E?)</i>	Project delivery and level of achievement, respondent perceptions	Project Funding Proposal, project APRs, project results framework, project staff, project board members, partner organisations and beneficiaries.	Document analysis. Interviews with: project staff; board members; partner organisations; beneficiaries.
11	How well is the project communications strategy ensuring all involved are kept informed of project plans / activities / achievements? {Including assessing, documenting and sharing its results, lessons learned and experiences)	Project delivery and level of achievement, respondent perceptions	Project Funding Proposal, project APRs, project staff, project board members, partner organisations and beneficiaries.	Document analysis. Interviews with: project staff; board members; partner organisations; beneficiaries.
	<b>Sustainability: To what extent are there financial, institutional, socio-economic, and/or environmental risks to sustaining long-term project results?</b>			
12	12.1 What is the likelihood that the project results will continue to be useful or will remain after the completion of the project? 12.2 Has the project put in place sustainability mechanisms or an appropriate exit strategy for after the end of the project? 12.3 What is the likelihood that the targeted stakeholders, at all levels will take ownership of the introduced CCA knowledge as well as practices through micro-watershed management, climate smart agriculture (CSA) practices and alternative livelihood options?	Respondent perception; field evidence in IE mission	Project APRs, project results framework, project staff, project board members, partner organisations and beneficiaries.	Document analysis. Interviews with: project staff; board members; partner organisations; beneficiaries.
	<b>Risks: To what extent the associated risks, especially COVID-19 made impacts to the achievements of the desired deliverables of the project?</b>			
13	13.1 How well risks were identified during project design and how	Project delivery and level of achievement,	Project Funding Proposal, project APRs, project risks	Document analysis. Interviews with: project staff; board

	<p>well are these being managed during implementation?</p> <p><b>13.2</b>How were the risks managed pre-COVID?</p> <p><b>13.3</b>How are they managed during the pandemic?</p> <p><b>13.4</b>What are the main risks that could affect the sustainability of project benefits?</p>	<p>respondent perceptions</p>	<p>log, project ESS report, project staff, project board members, partner organisations and beneficiaries.</p>	<p>members; partner organisations; beneficiaries.</p>
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## Annex 3: CRIWMP Interim Evaluation - Field Mission Guidance<sup>81</sup>

### Info to gather from informants

**Background** [always note gender and age group of interviewees / numbers of men and women and age range in FGDs, date, location of meeting]

1. Were you involved in the design of the project? If so, how?
2. When did you start being involved in the project?

### Details

3. How are you involved (which Output / Activity / Activities? Was this as an individual / household / community group?
4. How often are you involved (e.g. meetings / activities on-the-ground)? (ideally collect info. on numbers of project-catalysed activities participants have attended and their assessment of how useful these have been).
5. Were meetings etc. held at times which made it easy for you to participate?
6. Do you feel that the project team provided you with information about the aims of the activities, time and financial commitments, benefits (e.g. increased crop yields, crop diversification, access to water for drinking / irrigation before the activities started?
7. During your involvement, do you feel you were consulted about the project activities and could contribute, for example to any changes in plans?
8. How do you feel the project activities on-the-ground? Was the effort worthwhile or not (financially, in terms of crop yields, crop diversification, CC resilience)?

### COVID

9. How has the COVID pandemic affected your involvement in project activities? [If necessary record info for 2017-2019, then also for under COVID restrictions.]

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<sup>81</sup> for beneficiaries, divisional and district level officers

## Annex 4: Ratings Scales

<b>Ratings for Progress Towards Results:</b> (one rating for each outcome and for the objective)		
6	Highly Satisfactory (HS)	The objective/outcome is expected to achieve or exceed all its end-of-project targets, without major shortcomings. The progress towards the objective/outcome can be presented as "good practice".
5	Satisfactory (S)	The objective/outcome is expected to achieve most of its end-of-project targets, with only minor shortcomings.
4	Moderately Satisfactory (MS)	The objective/outcome is expected to achieve most of its end-of-project targets but with significant shortcomings.
3	Moderately Unsatisfactory (HU)	The objective/outcome is expected to achieve its end-of-project targets with major shortcomings.
2	Unsatisfactory (U)	The objective/outcome is expected not to achieve most of its end-of-project targets.
1	Highly Unsatisfactory (HU)	The objective/outcome has failed to achieve its midterm targets, and is not expected to achieve any of its end-of-project targets.

<b>Ratings for Project Implementation &amp; Adaptive Management:</b> (one overall rating)		
6	Highly Satisfactory (HS)	Implementation of all seven components – management arrangements, work planning, finance and co-finance, project-level monitoring and evaluation systems, stakeholder engagement, reporting, and communications – is leading to efficient and effective project implementation and adaptive management. The project can be presented as "good practice".
5	Satisfactory (S)	Implementation of most of the seven components is leading to efficient and effective project implementation and adaptive management except for only few that are subject to remedial action.
4	Moderately Satisfactory (MS)	Implementation of some of the seven components is leading to efficient and effective project implementation and adaptive management, with some components requiring remedial action.
3	Moderately Unsatisfactory (MU)	Implementation of some of the seven components is not leading to efficient and effective project implementation and adaptive, with most components requiring remedial action.
2	Unsatisfactory (U)	Implementation of most of the seven components is not leading to efficient and effective project implementation and adaptive management.
1	Highly Unsatisfactory (HU)	Implementation of none of the seven components is leading to efficient and effective project implementation and adaptive management.

<b>Ratings for Sustainability:</b> (one overall rating)		
4	Likely (L)	Negligible risks to sustainability, with key outcomes on track to be achieved by the project's closure and expected to continue into the foreseeable future
3	Moderately Likely (ML)	Moderate risks, but expectations that at least some outcomes will be sustained due to the progress towards results on outcomes at the Midterm Review
2	Moderately Unlikely (MU)	Significant risk that key outcomes will not carry on after project closure, although some outputs and activities should carry on
1	Unlikely (U)	Severe risks that project outcomes as well as key outputs will not be sustained

## Annex 5: Field Mission Itinerary

Puttalam District - 09<sup>th</sup> April 2021

Location	Activity	Description	Participants	Start time	End time
<b>Partner CSO office (South Asia Partnership), Nawagaththegama</b>	Introduction to CRIWMP Project	Administrative set up of the project	Local consultant, PMU, UNDP, CSO partner (presentation by DPD-CRIWMP, CSA Specialist, District Coordinator of partner CSO)	9.00 am	9.10 am
	Presentation on context and rationale of project activities in Puttalam district	Brief on application of cascade-based approach for irrigation development in the project location, use of agro-meteorological advisories at village level for agricultural decision making, adoption of CSA practices by the farmers		9.10 am	9.45 am
<b>Tea and travel to project sites</b>				9.45 am	10.15 am
Mahamaddawa village in Nawagaththegama DSD	VIS ecosystem and climate smart home garden development site	Visit tree girdle ecosystem area of Mahamaddawa irrigation tank and observe the participation of widowed farmers for VIS ecosystem restorations while improving their income through climate smart home gardens.	Four home gardening widowed farmers (Swarnashilee, Siriyalatha/Somalatha/Premalatha), Local Consultant, PMU, UNDP, AI, CSO	10.15 am	11.45 am
	Diversified agricultural livelihoods	Diversified home gardens, aqua-culture development, small scale cultivation of commercial crops under forward sales agreements	Visit integrated farm of Thilakaratne, Local Consultant, PMU, UNDP, AI, CSO	11.45 am	12.15 pm
Madde Rambewa Tank in Nawagaththegama DSD	Meeting farmer organization of Madde Rambewa irrigation tank	Visit Made Rambewa tank rehabilitated through the project, meeting farmer organization and discuss (a) their participation in irrigation rehabilitation process, (b) improved water management practices © Cropping Intensity improvement	Farmer Organization, Local Consultant, PMU, UNDP, AI, CSO	12.15 pm	12.45 pm
<b>Lunch and travelling</b>				12.45 pm	1.45 pm
Gallawa Tank in Nawagaththegama DSD	Meeting farmer organization of Gallawa irrigation tank	Meeting farmer organization of Gallawa tank and discuss (a) how they use seasonal weather forecasts and agriculture advisories for agricultural decision making, (b) how they responded to Pandemic situation with	Farmer Organization, Local Consultant, PMU, UNDP, AI, CSO	1.45 pm	2.15 pm

		climate smart agricultural livelihoods, (c) how they progress in improving Cropping Intensity			
	Agricultural land use in the catchment area of Gallawa tank	Sustainable climate smart agricultural land use with soil conservation measures adopted by the settlers in the irrigation tank catchment area	Agriculture producer group, Local Consultant, PMU, UNDP, AI, CSO	2.15 pm	3.00 pm
	Private sector engagement for marketing of climate resilient crops	Facilitating marketing linkages for climate resilient crops grown by drought prone farmers in Nawagaththegama DSD	One local agribusiness company, Agriculture producer group, local consultant, CSO, PMU, UNDP, AI		
Rambakanaya gama village	Livelihood diversification	Pottery making livelihoods	Pottery making group, Local Consultant, PMU, UNDP, Small Industries Development Officer, CSO	3.00 pm	3.15 pm
Divisional Secretariat office	Stakeholder Meeting	Planning and monitoring of project activities at divisional level, and dissemination of seasonal weather forecast and agricultural advisory at divisional level	PMU, UNDP, Small Industries Development Officer, CSO DS/Assistance Planning Director, ARPA, AI, Economic Development Officers	3.45 pm	4.45 pm

#### Kurunegala District - 10<sup>th</sup> April 2021

Location	Activity	Description	Participants	Start time	End time
Thalakola wewa village	Community water supply scheme	Visit water treatment plant	CBO Officers, beneficiary households, PMU, UNDP, CSO, Department of National Community Water Supply, Water Board, Pradesheya Sabha	9.00 am	10.30 am
		Discussion with CBO Offices and beneficiaries on (a) impact of community water supply scheme for the drinking water issue in the area, and (b) community participation in operation and maintenance of community water supply scheme			
		Visit two beneficiary households of the community water supply scheme in order to observe their participation and impact			

Departure to Ihala Thimbiriyawa village				10.30 am	11.15 am
Ihala Thimbiriyawa village	Small scale integrated farm of a women farmer beneficiary in Ihala thimbiriyawa village	Animal Husbandry/ cattle rearing	Women farmer (Lalitha Damayanthi), AI, PMU, UNDP, CSO,	11.15 am	11.45 am
		Bio-gas unit/ Bio-gas slurry usage for agriculture			
		Silage production			
		Home garden			
Athaudagama irrigation tank in Ihala Thimbiriyawa village	Meeting with Farmer Organization of Athaudagama irrigation tank	Observing the Athaudagama tank rehabilitated though the project and discussion with farmer organization on improved water management practices	Farmer Organization, AI, DO, APRA, PMU, UNDP, CSO,	11.45 am	12.30 pm
Departure to Hunugallewa and lunch				12.30 pm	2.00 pm
Meeting with farmer organization in Hunugallewa irrigation tank	Meeting with Farmer Organization of Hunugallewa irrigation tank on integrated approach	Discussion with Farmer Organization on (a) their participation in VIS upgrading program, (b) FO engagement in VIS ecosystem restoration, (c) adoption of climate smart agriculture practices (d) adoption of alternate livelihoods specially by women farmers, (e) Climate Smart Home Gardening and agricultural value chain development by women farmer leaders with local agribusiness organizations, (f) how the FO responded to Pandemic situation with climate smart agricultural livelihoods (g) Cropping Intensity improvement (h) disaster preparedness planning, (i) drinking water supply	Farmer Organization, AI, DO, APRA, PMU, UNDP, CSO,	2.00 pm	3.00 pm
		Participatory demarcation of VIS ecosystems and restoration			
	Observe the re-establishment of interceptor eco-system component of Hunugallawa tank				
		Visit to forest plant nursery established by the farmers for continuing VIS eco-system restoration process.			

	Alternative livelihood development	Women farmer producing handicrafts with aquatic weeds ( <i>Japan Jabara</i> )			
	Departure form Hunugallewa			3.00 pm	4.00 pm
Buduruwakan da village	Rainwater harvesting site	Discussion with rainwater harvesting and ground water recharging beneficiaries	Beneficiaries, PMU, UNDP, CSO,	4.00 pm	5.00 pm

### Vavuniya District - 19<sup>th</sup> April 2021

Location	Activity	Description	Participants	Start time	End time
<b>Partner CSO sub office, Vavuniya (PALM Foundation).</b>	Introduction of CSO and CRIWMP team Vavuniya and Mannar  Result Based overall Project Presentation of two Districts Vavuniya and Mannar.	01. Institutional setup and Project HR – Mr.Sunil Dombepola (ED PALM Foundation) 02. 2018, 2019,2020 and 2021 quarter 1 project result base presentation – Mr.Kathirkamanathan (DPC CRIWMP Vavuniya) 03. Mannar June 2020 to March 2021 Project result base presentation – Mr.H.M.Anver (DPC CRIWMP Mannar)	01.MTR Team 02.Project Coordinator (PMU), Mr.Jennings - 0773173031 03.Dr. Geethika Wijesundara, Field Coordinator, UNDP – 0778267549 04.Mr. Sunil Dombepola (PALM Foundation)- 0714210551 and PLAM team. (Around 15members)	8.30 am	10.00 am
Travelling to Salalihinigama 35km				10.00 am	10.45 am
<b>Salalihinigama (Sinhala Community)</b>	Focus group discussion with traditional Seed production group.  Individual meeting with 05 Ecological Home Garden farmers of CSA intervention. And dissemination of agricultural Advisory. Maintenance of Safe drinking water system of Rainwater harvesting.	<b>Visit.01.</b> Focal Group Discussion with Traditional seed production Group (10 Farmers) <b>Visit.02.</b> 13 <sup>th</sup> Lane Home gardening households 05 nos. * RWHTS for women headed families. *Agriculture advisory and Weather forecast	01.MTR Team 02.Project Coordinator, Mr.Jennings - 0773173031 03. Dr. Geethika Wijesundara, Field Coordinator, UNDP – 0778267549 04 CSO staff (Mr. Rasika – 0765366116, Mr. Nagul – 0762555506, Mr.Nathan – 0778999796, Ms.Krishna) 08.Grama Niladhari – Mr.Marasinga – 0775804366.	10.45 am	11.45 am

Travelling to Periyakulam from Salihinigama - KM 55				11.45 am	01.00 pm
<b>Lunch at Ulukkulam</b>				01.00 pm	01.30 pm
<b>Periyakulam (Tamil Community)</b>	<p>Individual meeting with an Ecological Home Garden farmer with on Biogas unit.</p> <p>Visiting Ecological and commercial Home Gardens with Run-off water harvesting technologies</p> <p>Focus group discussion on CSA interventions and dissemination of agricultural Advisory.</p> <p>Visiting of early warning system of Elephant attack mitigation methods.</p>	<p><b>Visit.01.</b> Ms. Rajeswary Home – Biogas unit. (Min 10)</p> <p><b>Visit.02.</b> HG visit with Run off Tanks (30 Min)</p> <p><b>Visit.03.</b> Focal Group Discussion with Home Gardening Beneficiaries. Regarding Marketing and Agriculture advisories and Dissemination (20 Min)</p> <p><b>Visit.04.</b> Visiting of early warning system of Elephant attack mitigation tool.</p>	<p>01.MTR Team</p> <p>02.Coordinator (PMU), Mr. Jennings</p> <p>03. Dr. Geethika Wijesundara, Field Coordinator, UNDP – 0778267549</p> <p>04.CSO staff (Mr. Rasika – 0765366116, Mr. Nagul – 0762555506, Mr. Nathan – 0778999796, Ms. Nirmala – 0773079957,</p> <p>05. Grama Niladhari: Mr. Aslam – 0768632004</p> <p>09. Agriculture Instructor: Mr. Amalathaas – 0775026106</p> <p>10. Divisional Officer: Mr. Sajith – 0771032004</p> <p>11. Mr Mahesh, Field Engineer, UNDP - 0773026567</p>	01.30 pm	03.00 pm
<b>Muthaliyarkulam &amp; Sinnasippikulam</b>	Visiting Disaster mitigation intervention.	Disaster mitigation interventions in Muthaliyarkulam safe location, and Sinnasippikulam culvert renovation.	<p>01.MTR Team</p> <p>02.Project Coordinator, Mr.Jennings - 0773173031</p> <p>03. Dr. Geethika Wijesundara, Field Coordinator, UNDP – 0778267549</p> <p>04.CSO Staff (Mr. Rasika – 0765366116, Mr. Nagul – 0762555506, Mr.Nathan – 0778999796)</p> <p>05.Agriculture Production and Research Assistants/Divisional Officers</p>	03.00 pm	03.30 pm
Travelling to Kelsiyambalaweve from Sinnasippikulam & Muthaliyarkulam 15km.				03.30 pm	03.45 pm
<b>Kalesiyambalaweve</b>	Visiting social and legal demarcation of Kelesiyambalaw	<b>Visit.01.</b> Visiting Social and legal demarcation.	<p>01.MTR Team</p> <p>02.Project Coordinator, Mr. Jennings</p>	03.45 pm	4.30 pm

	<p>a tank and visiting the manual rain gages. Upper catchment Chana cultivation.</p> <p>Visiting to Downstream water management. (35 Acr of paddy)</p> <p>Focus group discussion on Downstream water management. and weather forecasting and dissemination of Agricultura Advisory.</p>	<p><b>Visit.02.</b> Visiting to downstream Water Management.</p> <p><b>Visit.03.</b> Focus group Discussion on *Downstream Water Management *Weather forecasting *Dissemination of agriculture advisory. *Implementation of O&amp;M Plan of VISs</p>	<p>03.Dr Geethika Wijesundara, Field Coordinator, UNDP – 0772904284</p> <p>04.CSO Staff (Mr. Rasika – 0765366116, Mr. Nagul – 0762555506, Mr. Nathan – 0778999796, Mr. Shiva – 0774518470</p> <p>05.Mr.Sadeep (ADO) – 071638655</p> <p>06.Mr.Tharinthu (ARPO) – 0711120473</p> <p>07 Mr Menaka, UNDP, 0770583834</p>		
Wind up and Traveling Kelesiyambalavea to Vavuniya (25 km)					04.30pm

**Mannar District - 20th April 2021**

Travelling to Madhu from Anuradhapura- KM 90				7.00 am	8.30 am
<b>Kunchikulam GN Office</b>	<p>Project progress presentation &amp; Focus group discussion on CSA intervention and dissemination of agricultural Advisory with 12 farmers groups leaders.</p> <p>Visiting Home Gardens.</p>	<p>12 farmer's groups leaders. Translation by Mr.Anver</p> <p>Visiting Ecological and commercial Home Gardens, Compost yards, CSA intervention, and micro level flood mitigation interventions</p> <p>Focus group discussion on CSA intervention and dissemination of agricultural Advisory</p>	<p>01.MTR Team</p> <p>02.. Project Coordinator, (PMU) Mr.Jennings -</p> <p>03.Dr Geethika Wijesundara, UNDP – 0767951612)</p> <p>04. CSO staff: (Mr.Anver -DPC PALM Mannar 0771307541, Mr. Nagul – 0762555506, Mr. Rasika – 0765366116)</p> <p>05.Ms. Vinojitha -Assistant Divisional Secretary, Madhu DSD– 0768617326</p> <p>06.Mr. Shakoor -Deputy Director of Agriculture Mannar – 077 223 0600</p>	8.30 am	9.30 pm
				9.30 am	11.30 pm
				11.30a m	12.30 pm

	Focus group discussion on stakeholder's engagement. (Divisional Secretary, Deputy Director of Agriculture, Assistant Director Planning, Grama Niladhari, Agriculture Instructor, Divisional Officer, Farmers)				
<b>Travel to Vavuniya</b>				12.30 pm	1.30 pm
<b>Lunch at Vavuniya</b>				1.30 pm	2.30 pm
<b>Water Supply and Drainage Board - Vavuniya</b>	Discussion with Regional Manager & OIC	Discussion on provision of Safe Drinking water - Community Water Schemes/RWH systems/Small and big water filtering systems.	CRIWMP staff/ CSO staff (Mr.Sajjan/ Mr.Gunapala/Mr.Jenn/Mr. Nadan and Mr.Ari.	2.30 pm	3.30 pm
<b>District Disaster Management Center- Vavuniya</b>	Meeting with Assistant Director/ District Disaster Management Center.	DDMC engagement with DDMC.	Assistant Director: Mr.Inparaj CRIWMP District Coordinator: Mr.Jennings CSO staff: Mr.Nagul & Mr.Nadan.	3.30 pm	4.00 pm

#### Anuradhapura District - 21<sup>st</sup> April 2021 the First Day

Location/ GND	Activity	Description	Participants	Start time	End time
Partner CSO office - Anuradhapura (Janathakshan)	Meeting with CSO officials (Janathakshan)	Discussion with CSO on project activities, CSO engagement and social mobilization process	UNDP, PMU, CSO	8.00 pm	9.00 pm
Anuradhapura	Meeting farmer vendors of Rajarata Farmers Market	Discussion with farmer vendors on (a) adoption of climate smart agriculture practices (b) climate smart value chains and farmers market (c) livelihood impact	Beneficiaries, PMU, UNDP, CSO, Subject Matter officer of Provincial Department of Agriculture	9.00 am	9.30 am

Departure from Anuradhapura to Parangiyawadiya village				9.30 am	10.45 am
Parangiyawadiya GND	Meeting farmer vendors of Upulwila Women's Farmer Market	Discussion with women farmer vendors on (a) adoption of climate smart agriculture practices (b) climate smart value chains and farmers market (c) livelihood impact	Beneficiaries, FO, PMU, UNDP, CSO, Agriculture Instructor, Agriculture Research and Production Assistant, Divisional Officer	10.45 am	11.15 am
Departure from Parangiyawadiya village to Diyatittawewa village				11.15 pm	11.25 pm
Diyatittawewa GND	Discussion with farmers on disaster/ flood management activities	Discussion with FO on disaster management interventions in Diyathithawewa village	FO, PMU, UNDP, CSO	11.25 am	11.45 am
Departure from Diyathithawewa village to Sivalakulama village				11.45 am	01.00 pm
Seevali School in Sivalakulama GND	Meeting with school principal and students on drinking water supply scheme	Discussion with School principal and children on impact of the drinking water scheme installed in the school, and its operation and maintenance system	School principal, Children, PMU, UNDP, CSO	01.00 pm	1.30 pm
Departure from Sivalakulama village to Palugollagama village				01.30 pm	1.45p m
Palugollagama village (Ihala Galkulama GND)	Water CBO discussion - Community drinking water supply scheme	Discussion with Janadiya Water CBO on (a) Drinking water scheme (b) women engagement	FO, CBO, PMU, UNDP, CSO	1.45 pm	2.45 pm
Lunch at Palugollagama village and departure from Palugollagama to Anuradhapura city				2.45 pm	4.15 pm
Anuradhapura (NCWSD)	Stakeholder Meeting - National Community Water Supply Department (NCWSD)	Discussion on stakeholder engagement in community led drinking water scheme	NCWSD, PMU, UNDP, CSO	4.15 pm	4.45 pm

#### Anuradhapura District = 22nd April 2021 the Second Day

Location/ GND	Activity	Description	Participants	Start time	End time
Anuradhapura (Department of Agrarian Development Auditorium)	Stakeholder Meeting - Provincial Department of Agriculture and Department	Discussion on stakeholder engagement in Climate Smart Agriculture, and dissemination and use of agro-	PDoA, DAD, PMU, UNDP, CSO	8.30 am	9.30 am

	of Agrarian Development	meteorological advisories			
Departure from Anuradhapura to Muriyakadawala village				9.30 am	10.00 am
Muriyakadawala GND	Meeting with CSA home gardening farmers	Visit to Ihala Punchikulama tank: visit CSA home garden development, catchment improvement and VIS interceptor development activities	Beneficiaries, PMU, UNDP, CSO	10.00 am	11.00 am
Departure from Muriyakadawala to Palugaswewa				11.00 am	11.30 am
Udakadawala (Horiwila GND)	Meeting CSA home garden beneficiaries	Discussion with Farmers on adoption of climate smart agriculture practices	Beneficiaries, PMU, UNDP, CSO, Agriculture Instructor, Agriculture Research and Production Assistant	11.30 am	12.00 noon
	Meeting Rainwater Harvesting beneficiaries	Discussion with rainwater harvesting beneficiaries	Beneficiaries, PMU, UNDP, CSO		
Lunch at Udakadawala village				12.00 noon	1.00 pm

### Polonnaruwa District - 22nd April 2021

#### Visited parallelly to Anuradhapura second day by Mr. Lionel Thilakarathna, Assistant to the NC

Location	Activity	Description	Participants	Start time	End time
Rotaweve (one of the farmer leader's premise) - Gal oya GND in Higurakgoda DSD	Presentation by Agriculture Development Coordinator of CRIWMP	Introduction of CSA home garden development programme in Polonnaruwa district	Local consultant, PMU, UNDP, Agriculture Instructor, Agriculture Production and Research Assistant, Divisional Officer, Grama Niladhari	1.30 pm	1.45 pm
Rotaweve Village, Gal oya GND, Higurakgoda DSD	Field Visit: Small Scale climate smart home garden development site	Application of soil conservation practices (mulching and soil bunds), micro irrigation practices (pitcher irrigation), cultivation in growbags, integrated home gardening practices (animal husbandry)	Local consultant, PMU, UNDP, Agriculture Instructor, Agriculture Production and Research Assistant, Divisional Officer, Grama Niladhari	1.45 pm	2.15 pm
	Group discussion with home gardening	Discussion on their experience and best practices of water management in Home gardens	Local consultant, PMU, UNDP, Agriculture Instructor, Agriculture Production and Research Assistant, Divisional Officer, Grama Niladhari	2.15 pm	2.30 pm

	farmer leaders				
	Field Visit: Commercial level climate smart home garden	Integrated home garden with paddy farming, animal husbandry, perineal fruit farming, mix cropping, and water management practices.	Local consultant, PMU, UNDP, Agriculture Instructor, Agriculture Production and Research Assistant, Divisional Officer, Grama Niladhari	2.30 pm	3.00 pm
Rotaweva (one of the farmer leader's premise) - Gal oya GND in Higurakgod DSD	Stakeholder discussion	CSA Home Garden development programme	Local consultant, PMU, UNDP, Agriculture Instructor, Agriculture Production and Research Assistant, Divisional Officer, Grama Niladhari	3.00 pm	3.30 pm

### Trincomalee District - 23rd April 2021

Location	Activity	Description	Participants	Start time	End time
Partner CSO office (Janathakshan), Pankulama, Trincomalee	Presentation on project activities implemented in Trincomalee district	Description of the project activities implemented in Trincomalee district with special reference for adoption of CSA practices by the farmers	Local consultant, PMU, UNDP, CSO partner (presentation by District Coordinator of partner CSO)	9.00 am	9.45 am
<b>Tea and travel to project sites</b>				9.45 am	10.15 am
Ecosystem areas of Gomarankadawala and Indikatuwa tanks in Gomarankadawala DSD	VIS ecosystem and climate smart home garden development site	Visit CSA home gardens in tree girdle area of Gomarankadawala Maha Wewa, and Interceptor development model of Indikatuwa tank.	Local Consultant, PMU, UNDP, Agriculture Instructor, partner CSO	10.15 am	11.00 am
Beneficiaries and other stakeholder meeting - Gomarankadawala Agrarian Services Center (ASC)	Participatory approach for maintaining VIS eco-systems,  Observation of Automated rain gage and manual rain gage data collection process	Participate handing over event of the maintenance of VIS interceptor of Gomarankadawala VIS to the FO and School children by Department of Agrarian Development	Local Consultant, PMU, UNDP, CSO, ASC (Divisional Officer, Agrarian Development Officer, Agriculture Research and Production Assistant), Agriculture Instructor, School Children, Farmer Organization representatives	11.00 am	11.45 am

Kibulpatiyawa Village in Galkadawala GND	Diversified agricultural livelihoods	Visit 25 liquid fertilizer producers in Kibulpatiyawa Village	Local Consultant, PMU, UNDP, Agriculture Instructor, Farmer Leaders, CSO	11.45am	12.30 pm
Thirappane Tank in Galkadawala GND	Cropping Intensity improvement and water management	Meeting of farmer organization and discuss alternate wet and dry irrigation method	Local Consultant, PMU, UNDP, CSO, Agriculture Instructor, Agrarian Development Officer, farmer leaders,	12.30 pm	1.00 pm
<b>Travelling to Trincomalee and lunch</b>				1.00 pm	2.45 pm
Provincial Department of Agriculture (PDOA), Trincomalee	Stakeholder meeting	Collaborative CSA interventions under Provincial Department of Agriculture	Deputy Director of Agriculture-Extension, Assistant Director of Agriculture, Subject Matter Officer, PMU, UNDP, CSO	2.45 pm	3.15 pm
Department of Agrarian Development, Trincomalee	Stakeholder meeting	Weather advisory dissemination and Inter Agency Coordination	Provincial Director of Agriculture-Eastern Province, Subject Matter Officer-PDOA, Assistant Commissioner of Department of Agrarian Development (DAD), Development Officers-DAD, PMU, UNDP, CSO	3.15 pm	4.30 pm

## Annex 6: List of key stakeholders, responsible parties, other government stakeholders

### GCF Accredited Agency

- \* UNDP

### Executing Entity

- \* Ministry of Irrigation (formerly Ministry of Ministry of Mahaweli Development and Environment)

### Responsible parties

- \* Department of Agrarian Development
- \* Department of Agriculture
- \* Department of National Community Water Supply
- \* National Water Supply and Drainage Board
- \* Ministry of Defense Ministry of Defence and within that assigned to the current State Ministry of National Security, Home Affairs and Disaster Management (including Department of Meteorology and Disaster Management Centre) (formerly Ministry of Disaster Management)

### Other GoSL stakeholders

- \* Department of External Resources
- \* Department of National Planning
- \* Irrigation Department and Provincial Irrigation Department (PID)
- \* Other relevant Ministries and Departments (i.e. MoH etc.)

### Local stakeholders

- \* 4 CSOs (Janathakshan GTE Ltd; PALM GTE Ltd; South Asian Partnerships Sri Lanka; Sri Lanka Red Cross Society)
- \* Farmer Organizations (FOs) and Women's Organizations in villages
- \* Provincial, district and divisional secretariats
- \* Private Sector [*inter alia* Engineering Consultants (Pvt) Ltd and EML Consultants (Pvt) Ltd. also food chain companies SR Bio Foods, Sri Lanka Green Crop Production Society, Food revolution (pvt.) Ltd, and Cey Lon Biscuit Limited]
- \* International Water Management Institute (IWMI);

UNDP has overall oversight of the EE and RPs to ensure compliance with its policies and procedures. UNDP, in agreement with the Government of Sri Lanka, are providing extensive implementation support and oversight through UNDP Country Office (CO).

## Annex 7: List of People Interviewed by IC

Date	Name	Role	Organisation	Interviewee Location
31/03/21 (initial meeting)	Asoka Ajantha	Project Manager, CRIWMP	UNDP	Colombo
	Sumudu Silva	Operations Manager, CRIWMP	UNDP	Colombo
	Buddika Hapuarachchi	Climate and Environ. Portfolio Manager	UNDP	Colombo
	Sureka Perera	Quality Assurance and Design Analyst	UNDP	Colombo
07/04/21	Yusuke Taishi	Regional Technical Adviser	UNDP	Bangkok
	Karma Repten	Regional Technical Advisor	UNDP	Bangkok
	Sampath Abeyrathne	Agriculture Expert, CRIWMP	UNDP	field based
	Nimal Jayasinghe	Training capacity Building and Data Manager	UNDP	Sri Lanka
12/04/21	Sumudu Silva	Operations Manager, CRIWMP	UNDP	Sri Lanka
12-16 April 2021				
16/04/21	Nishan Sakalasooriya	IE National Consultant	University of Kelaniya	Colombo
19/04/21	Asoka Ajantha	Project Manager	UNDP	Colombo
	Sureka Perera	Quality Assurance and Design Analyst	UNDP	Colombo
20/04/21	4 staff in NWSDB, and DNCWS regrettably did not join Zoom interview arranged by PMU			
	Dr Ranjith Punyawardhana	Agro-climatologist	Ex DoA	Colombo
	Dr Ajantha	Additional Secretary	MoA	Northern Province (field)
20/04/21	Ms. Janaki Megasthanna	Additional Director General	Department of Irrigation	Colombo
	Mr. Priyankara	Engineer	Department of Irrigation	Colombo
	Mr. Daham	Senior Lecturer	Faculty of Engineering, University of Peradeniya	Colombo
21/04/21	Mr Sunil Jayaweera	Director – Preparedness Planning Division	Disaster Management Center (DMC)	Colombo
	Mr. Nandana Mahakumarage	GIS Expert	Freelance Consultant to CRIWMP	Colombo
	Mr. Sangeewa Rodrigo	M&E Specialist	PMU- CRIWMP-MI	Colombo
	Mr. Lal Wakkumbura	Social & Env. Safeguard Specialist	PMU- CRIWMP-MI	Colombo
	Mr. Nalin Meemanage	Communication Specialist	PMU- CRIWMP-MI	Colombo
	Mr. Anil Rajakaruna	Project Accountant	<i>Interview impossible due to communication problem. Later IC's questionnaire was sent, answered and received by the IC by email.</i>	

Date	Name	Role	Organisation	Interviewee Location
	Ms. Anusha Warnasuriya	Director- Seasonal Forecasting Division	Department of Meteorology	Colombo
	Ms. Aruni Abeyssekara,	Assistant Director	Natural Resource management Center (NRMC)	Colombo
	Mr Vijayakumar	Commissioner General (Development)	DAD	Colombo
22/04/21	Ms. Kumauni Vidyalkara	Director Climate Change Secretariate	Climate Change Secretariat (GCF National Designated Authority)	Colombo
	Dr. Suniumall Jayathunga Diatung	Additional Secretary	Climate Change Secretariat	Colombo
	Mr. Anura Dissanayake	Secretary (Chairman of CRIWM Project Board)	Irrigation Department	Colombo
	Mr. Chandana Edirisooriya	National Project Director	CRIWMP, PMU, Colombo	Colombo
23/04/21	Prof. Ranjana Piyadasa	Head of the Env. Department, University of Jayawardanepura	University of Colombo (UoC)	Colombo
	Ms Sonali Herath	Env. Department, University of Jayawardanepura	University of Colombo (UoC)	Colombo
	Mr. Palitha Jayaweera	Master Trainer - Component 2	Institute for Participatory Interaction in Development (IPID)	Colombo
	Dr. Buddhi Weerasinghe	Freelance Consultant	DRM Consultant – Training Module Development	Colombo
27/04/21	Mr I.V.W. Ediriweera	Additional General Manager	National Water Supply & Drainage Board (NWSDB)	Colombo
10/05/21	Buddika Hapuarachchi	Climate and Environ. Portfolio Manager (former CRIWMP Project Manager)	UNDP	Colombo

## Annex 8: List of key documents reviewed

### Including

**FP016 Funding Proposal (FP)**

**Funding Activity Agreement (FAA)**

**UNDP Project Document (ProDoc)**

**UNDP Environmental and Social Screening results**

**Annual Performance Reports (APRs) 2017 - 2020**

**Minutes of the Project Board Meetings (2017, 2018, 2019, 2020)**

**Work plans (2017, 2018, 2019,2020,2021)**

**Environmental and Social Safeguards report for FP016 (27 Sep 2016)**

**Gender assessment for FP016 (24 May 2017)**

**Gender action plan for FP016 (24 May 2017)**

**Project Inception Report (15 Sept 2017)**

**Updated Gender Action Plan (Draft) (2019)**

**Training Needs Assessment Reports (Faculty of Technology - University of Colombo)**

- \* **Lot 1 - Irrigation and Water Management (2019)**
- \* **Lot 2: General Awareness, Climate/Weather Information and Climate Smart Agriculture (2019)**
- \* **LOT 3 Drinking Water (2019)**

**National Guidelines for Climate Smart Agricultural Technologies and Practices for the Dry and Intermediate Zones of Sri Lanka and Training Manual on Climate Smart Agriculture (2019)**

Ministry of Mahaweli, Agriculture, Irrigation and Rural Development, Sri Lanka with the technical inputs from the Natural Resources Management Centre, Department of Agriculture, Sri Lanka and UNDP Sri Lanka, under the Green Climate Fund assisted Climate Resilient Integrated Water Management Project.

**Age, Gender, Diversity and Water management Workshop Workbook, CRIWMP Project, UNDP (2019)**

**Project site location maps**

**Important communications between GCF and Ministry regarding challenges**

GCF (2020) Independent Evaluation of the Green Climate Fund's Environmental and Social Safeguards and the Environmental and Social Management System.

GCF (2021) GCF Evaluation Policy. Available from: <https://ieu.greenclimate.fund/evaluations/policy>

GoSL (2019) Sustainable Sri Lanka 2030 Vision and Strategic Path. Presidential Expert Committee Report. Available from: <http://www.presidentsoffice.gov.lk/wp-content/uploads/2019/05/Final-v2.4-Typeset-MM-v12F-Cov3.pdf>

UNDP (2017) Draft country programme document for Sri Lanka (2018-2022)

WB and SDB (2020) Climate Risk Country Profile: Sri Lanka. The World Bank Group and the Asian Development Bank. Available from:

<https://www.adb.org/sites/default/files/publication/653586/climate-risk-country-profile-sri-lanka.pdf>

## Annex 9: Signed UNEG Code of Conduct Form

**Evaluators/Consultants:**

1. Must present information that is complete and fair in its assessment of strengths and weaknesses so that decisions or actions taken are well founded.
2. Must disclose the full set of evaluation findings along with information on their limitations and have this accessible to all affected by the evaluation with expressed legal rights to receive results.
3. Should protect the anonymity and confidentiality of individual informants. They should provide maximum notice, minimize demands on time, and respect people's right not to engage. Evaluators must respect people's right to provide information in confidence, and must ensure that sensitive information cannot be traced to its source. Evaluators are not expected to evaluate individuals, and must balance an evaluation of management functions with this general principle.
4. Sometimes uncover evidence of wrongdoing while conducting evaluations. Such cases must be reported discreetly to the appropriate investigative body. Evaluators should consult with other relevant oversight entities when there is any doubt about if and how issues should be reported.
5. Should be sensitive to beliefs, manners and customs and act with integrity and honesty in their relations with all stakeholders. In line with the UN Universal Declaration of Human Rights, evaluators must be sensitive to and address issues of discrimination and gender equality. They should avoid offending the dignity and self-respect of those persons with whom they come in contact in the course of the evaluation. Knowing that evaluation might negatively affect the interests of some stakeholders, evaluators should conduct the evaluation and communicate its purpose and results in a way that clearly respects the stakeholders' dignity and self-worth.
6. Are responsible for their performance and their product(s). They are responsible for the clear, accurate and fair written and/or oral presentation of study limitations, findings and recommendations.
7. Should reflect sound accounting procedures and be prudent in using the resources of the evaluation.
8. Must ensure that independence of judgement is maintained and that evaluation findings and recommendations are independently presented.
9. Must confirm that they have not been involved in designing, executing or advising on the project being evaluated.

**Interim Evaluation Consultant Agreement Form**

Agreement to abide by the Code of Conduct for Evaluation in the UN System:

Name of Consultant: ANUSE C. WOODFINSE

Name of Consultancy Organization (where relevant): \_\_\_\_\_

I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluation.

Signed at: Edinburgh UK (Place) on 11 June 2021 (Date)

Signature: Anuse C. Woodfinse

## UNEG Code of Conduct for Evaluators/Interim Evaluation Consultants

**Evaluators/Consultants:**

1. Must present information that is complete and fair in its assessment of strengths and weaknesses so that decisions or actions taken are well founded.
2. Must disclose the full set of evaluation findings along with information on their limitations and have this accessible to all affected by the evaluation with expressed legal rights to receive results.
3. Should protect the anonymity and confidentiality of individual informants. They should provide maximum notice, minimize demands on time, and respect people's right not to engage. Evaluators must respect people's right to provide information in confidence, and must ensure that sensitive information cannot be traced to its source. Evaluators are not expected to evaluate individuals, and must balance an evaluation of management functions with this general principle.
4. Sometimes uncover evidence of wrongdoing while conducting evaluations. Such cases must be reported discreetly to the appropriate investigative body. Evaluators should consult with other relevant oversight entities when there is any doubt about if and how issues should be reported.
5. Should be sensitive to beliefs, manners and customs and act with integrity and honesty in their relations with all stakeholders. In line with the UN Universal Declaration of Human Rights, evaluators must be sensitive to and address issues of discrimination and gender equality. They should avoid offending the dignity and self-respect of those persons with whom they come in contact in the course of the evaluation. Knowing that evaluation might negatively affect the interests of some stakeholders, evaluators should conduct the evaluation and communicate its purpose and results in a way that clearly respects the stakeholders' dignity and self-worth.
6. Are responsible for their performance and their product(s). They are responsible for the clear, accurate and fair written and/or oral presentation of study limitations, findings and recommendations.
7. Should reflect sound accounting procedures and be prudent in using the resources of the evaluation.
8. Must ensure that independence of judgement is maintained and that evaluation findings and recommendations are independently presented.
9. Must confirm that they have not been involved in designing, executing or advising on the project being evaluated.

**Interim Evaluation Consultant Agreement Form**

Agreement to abide by the Code of Conduct for Evaluation in the UN System:

Name of Consultant: Nishan P. Sakalasooriya

Name of Consultancy Organization (where relevant): \_\_\_\_\_

I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluation.

Signed at: Colombo (Place) on 11/06/2021 (Date)

Signature: Nishan P. Sakalasooriya

## Annex 10: Signed Interim Evaluation Report Clearance form<sup>82</sup>

<b>Interim Evaluation Report Reviewed and Cleared By:</b>	
<b>Commissioning Unit</b>	
Name: <u>Sureka Perera</u>	14-Jun-2021
Signature: <u><i>Sureka Perera</i></u>	Date: _____
<b>Regional Technical Advisor (Nature, Climate and Energy)</b>	
Name: <u>Yusuke Taishi</u>	14-Jun-2021
Signature: <u><i>Yusuke Taishi</i></u>	Date: _____
<b>Principal Technical Advisor (Nature, Climate and Energy)</b>	
Name: <u>Srilata Kammila</u>	14-Jun-2021
Signature: <u><i>Srilata Kammila</i></u>	Date: _____

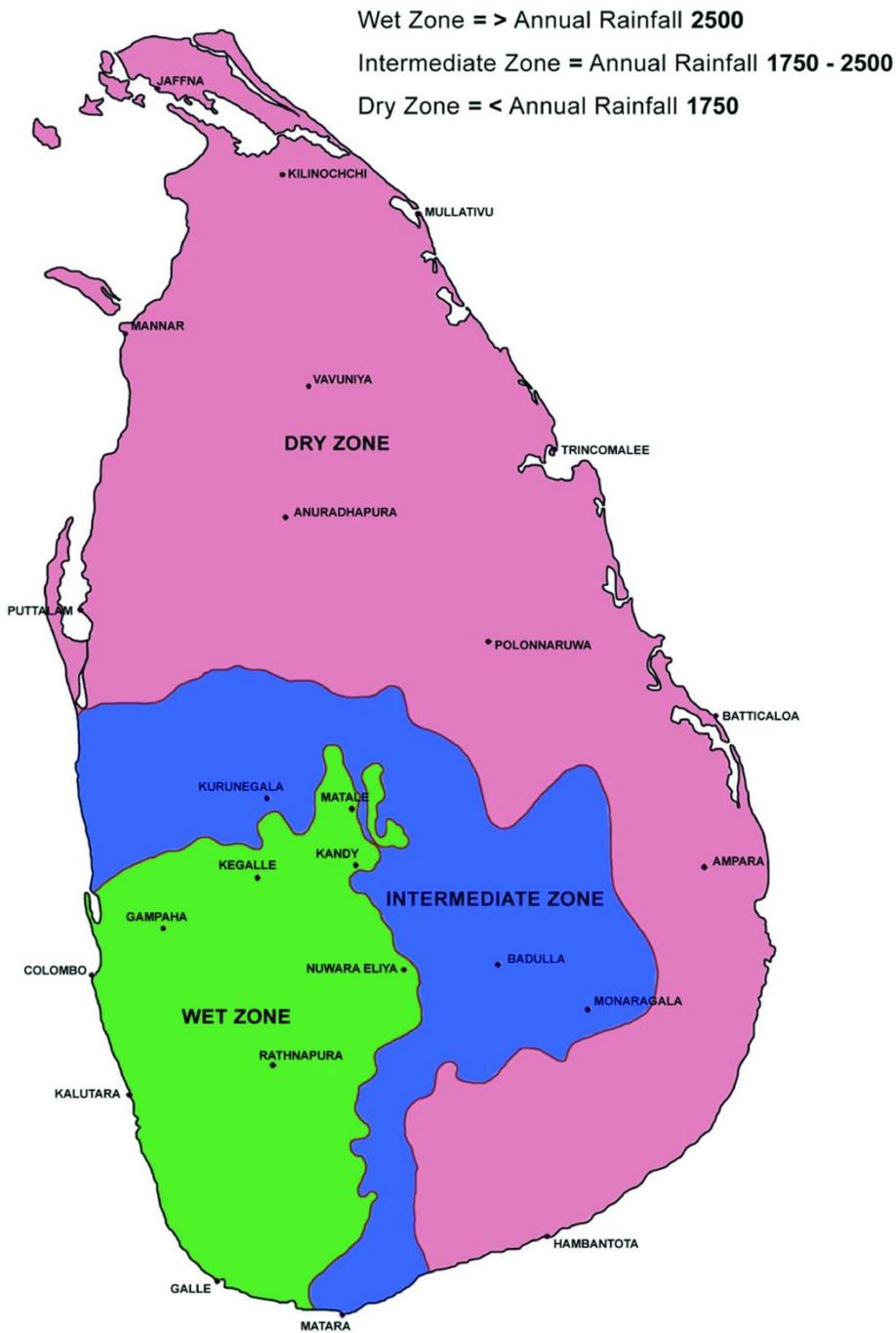
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<sup>82</sup> to be completed and signed by the Commissioning Unit, RTA and PTA included in the final report

[Annex 11: Audit trail from received comments on draft Interim Evaluation report  
\(separate file\)](#)

## Annex 12: Maps of Sri Lanka

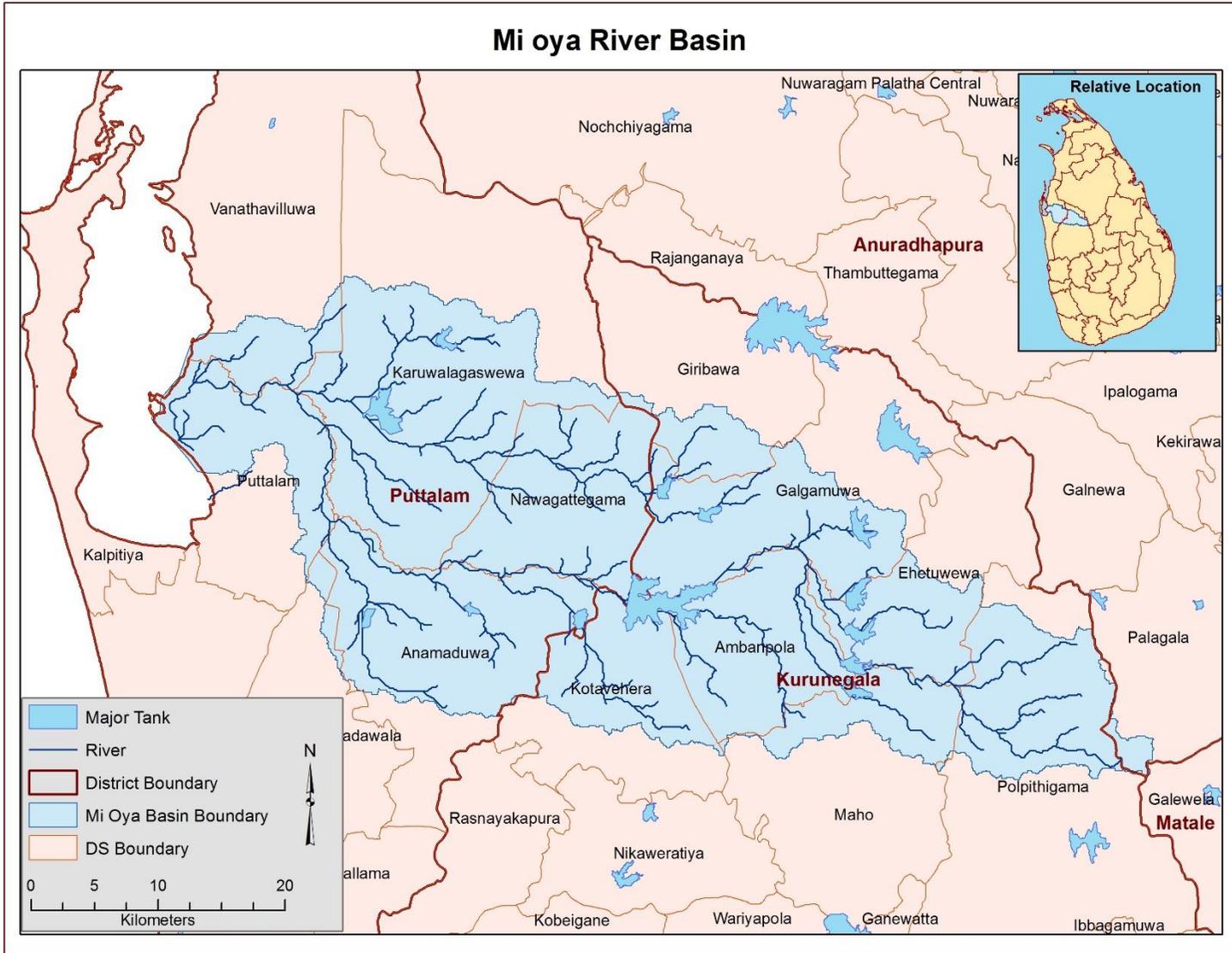
### Climate Zones<sup>83</sup>



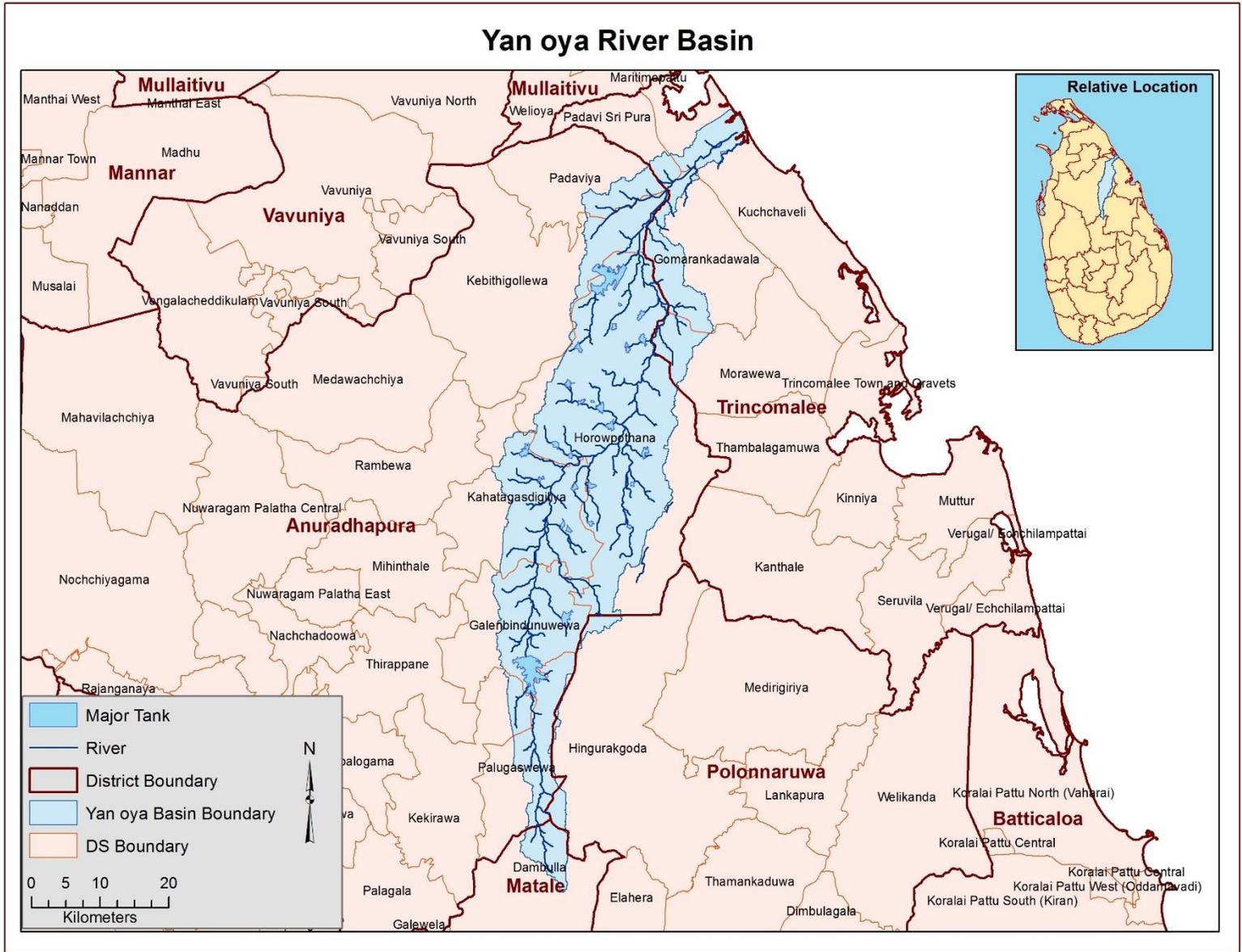
<sup>83</sup> Source: [https://link.springer.com/chapter/10.1007/978-3-030-44144-9\\_2](https://link.springer.com/chapter/10.1007/978-3-030-44144-9_2)



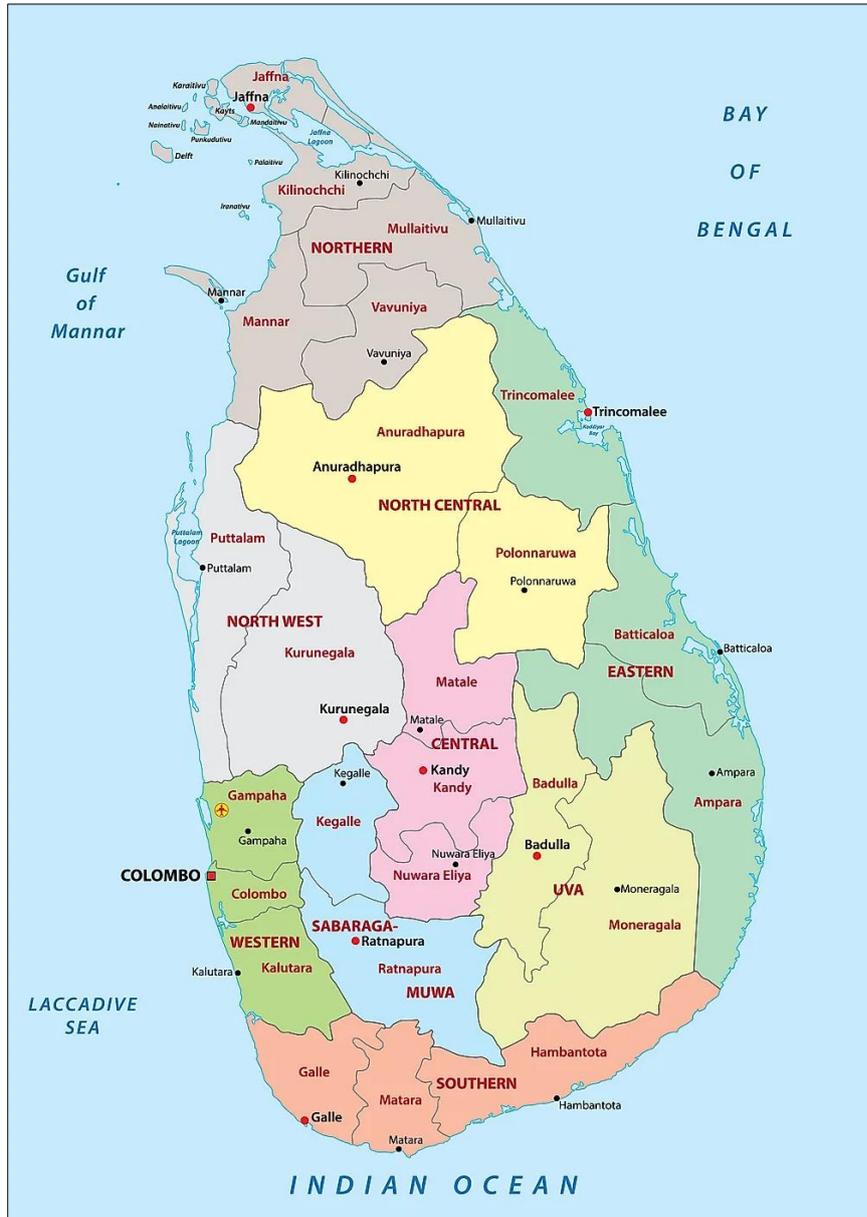
### Mi oya River Basin



### Yan oya River Basin



## Provinces and Districts<sup>85</sup>



<sup>85</sup> Source: <https://www.worldatlas.com/maps/sri-lanka>

Annex 13: Field Data Collecting Strategies and Field Verification<sup>86</sup>

Output District	FGDs					KIDs					Field observations	
	Total FGDs	M	W	YF	YM	Total KIDs	M	W	MY	WY	No of field observations	Activities
Anuradhapura	09	61	77	05	04	05	03	03	-	01	14	<ul style="list-style-type: none"> <li>02 Farmer markets</li> <li>CSA Practices<sup>1</sup></li> <li>02 Disaster management activities</li> <li>02 Cascade development<sup>2</sup></li> <li>02 Drinking water supply scheme<sup>3</sup></li> <li>Real time Weather Station</li> </ul>
Kurunegala	04	34	24	03	02	04	01	04	-	-	11	<ul style="list-style-type: none"> <li>03 CSA practices</li> <li>Diversified livelihoods- Handicraft production</li> <li>02 Cascade development<sup>2</sup></li> <li>01 Drinking water supply scheme</li> <li>Community water treatment plant</li> <li>VIS Operation and maintenance system</li> <li>Manual rain gauge</li> </ul>
Polonnaruwa	02	06	09	01	02	02	02	01	-	-	03	<ul style="list-style-type: none"> <li>03 CSA practices<sup>1</sup></li> </ul>
Puttalam	04	37	13	03	03	04	04	04	-	-	08	<ul style="list-style-type: none"> <li>06 CSA practices<sup>1</sup></li> <li>01 Cascade development<sup>2</sup></li> <li>Aquaculture</li> </ul>
Trincomalee	03	11	03	-	01	06	04	01	-	-	05	<ul style="list-style-type: none"> <li>04 Climate smart agriculture practices</li> <li>Manual rain gauge</li> </ul>
Vavuniya	06	23	16	-	05	06	05	07	-	03	11	<ul style="list-style-type: none"> <li>06 Climate smart agriculture practices</li> <li>02 Disaster management activities<sup>4</sup></li> <li>01 Cascade development<sup>2</sup></li> <li>Rainwater harvesting system</li> </ul>
Mannar	02	09	05	-	-	06	02	06	-	-	06	<ul style="list-style-type: none"> <li>04 CSA practices<sup>1</sup></li> </ul>
<b>Total</b>	30	181	147	12	17	33	21	26	-	04	58	

Climate smart agriculture (CSA) practices (7): bee keeping; land use with soil conservation; agriculture advisory and weather forecast; composting; micro irrigation; pot cultivation; bio fences.

Cascade improvement activities (4)<sup>2</sup>: improved water managements practices; tank operation and maintenance systems; seasonal weather forecasts and agriculture advisories; cropping intensity improvement of VIS downstream.

Drinking water supply schemes (3)<sup>3</sup>: rainwater harvesting; community drinking water supply; ground water recharging.

Disaster management activities (3)<sup>4</sup>: early warning systems, renovating the disaster evacuation centers, flood control construction.

<sup>86</sup> Source: CRIWMP IE National Consultant's field mission notebooks (April 2021)

## Annex 14: CRIWMP Results Framework<sup>87</sup>

<b>This project will contribute to the following Sustainable Development Goal (s):</b>					
<b>GOAL1: Poverty reduction</b>					
<b>GOAL2: Food security</b>					
<b>GOAL5: Gender equality</b>					
<b>GOAL6: Integrated water management</b>					
<b>GOAL13: Climate change adaptation</b>					
<b>This project will contribute to the following country outcome included in the UNDAF/Country Programme Document:</b>					
Outcome #4: Policies, programs and capacities to ensure environmental sustainability, address climate change, mitigation and adaptation and reduce disaster risks in place at national, sub national and community levels					
Country Programme Output 4.1: Development agencies are equipped with policies, strategies, methodologies and tools to integrate sustainable development and disaster resilience principles					
<b>This project will be linked to the following output of the UNDP Strategic Plan:</b>					
Output 1.3: Solutions developed at national and sub-national levels for sustainable management of natural resources, ecosystem services, chemicals and waste.					
Output 1.4: Scaled up action on climate change adaptation and mitigation cross sectors which is funded and implemented.					
Output 1.5: Inclusive and sustainable solutions adopted to achieve increased energy efficiency and universal modern energy access (especially off-grid sources of renewable energy)					
Output 2.5: Legal and regulatory frameworks, policies and institutions enabled to ensure the conservation, sustainable use, and access and benefit sharing of natural resources, biodiversity and ecosystems, in line with international conventions and national legislation.					
<b>GCF Paradigm shift objectives:</b>					
	<b>Objective and Outcome Indicators</b>	<b>Baseline</b>	<b>Mid-term Target</b>	<b>End of Project Target</b>	<b>Assumptions</b>
<b>SDG indicators</b>	Output 1.4: Scaled up action on climate change adaptation and mitigation cross sectors which is funded and implemented.	0			
<b>UNDP Strategic Plan Indicators</b>	1. # direct project beneficiaries.				
<b>FUND LEVEL IMPACT:</b>					
<b>Fund level impact:</b>	Total number of direct and indirect beneficiaries (% of whom is female)	0		Total	Completed infrastructure and sustained maintenance for water supply systems

<sup>87</sup> Source: CRIWMP ProDoc (and FP)

A 1.0 Increased resilience and enhanced livelihoods of the most vulnerable people, communities, and regions	<b>Indicator 1.2</b> Number of males and females benefiting from the adoption of diversified, climate resilient livelihood options			1,950,374 <sup>88</sup> (51% of whom is female)  9.6% of the total population of Sri Lanka <sup>89</sup>  770,500 <sup>90</sup> (51% of whom is female) (direct)  1,179,874 <sup>91</sup> of (51% of whom is female) (indirect)  520,000 <sup>92</sup> of which 265,200 are women	Uptake of training and capacity building by provincial, district and ASC officials on water management, climate resilient agriculture packages, flood/drought and management advisories  Efficiency and reach of the SMS-based communication system for flood warning and water management advisories  Completed irrigation infrastructure and sustained O&M.  Uptake of training and capacity building by farmers related to the CSA practices.
<b>Fund level Impact:</b>	<b>Indicator 2.3:</b> Number of males and females with year-round access to reliable and safe water supply despite climate shocks and stresses.	0		517,800 <sup>93</sup> of which 264,078 are women	Completed infrastructure and sustained maintenance for water supply systems

88 This total combines direct and indirect beneficiaries.

89 Total population of Sri Lanka 20,271,464 according to Census of 2012

90 See footnote 82.

91 The total number of indirect beneficiaries was derived as follows: Total rural population in 7 districts is 3,423,974; Total population in targeted 3 river basins is: 925,000. So, the base figure for indirect beneficiaries are those outside the river basins (3,423,974-925,000): 2,498,974. Of these: 1) 614,545 indirect beneficiaries, farmers, will benefit under Output 1 based on assumptions that training on CSA and interpretation and use of drought advisories will be adopted by other 91 ASCs in the seven target district, outside the river basins. Each ASC targets 6,753 farmers based on DAD statistics. 2) Then of the remaining population of potential indirect beneficiaries, which is 1,884,429 (2,498,974-614,545), we count the population receiving flood advisories for water management through the SMS services. Assuming 30% penetration of mobile services (see footnote 101 on basis for assumption), we estimate 30% of 1,884,420 (565,328) will receive SMS based early warnings. Therefore, total indirect beneficiaries is 614,545 plus 563,328 = **1,179,874**.

92 See footnote 88.

93 This is the total number of beneficiaries who receive year round and safe drinking water and whose drinking water supply systems are protected and sustained through flood advisories disseminated through cascade water management committees and through SMS. The number is calculated based on Output 2 and Output 3 beneficiaries avoiding overlaps. To avoid duplication, since the number of beneficiaries of water management and flood advisories of Output 3 (445,500, see footnote 99) are calculated at the river basin level population, we assume this already subsumes the beneficiaries of drinking water systems residing in the river basins (144,700, see footnote 94). Therefore we estimate the target population for this indicator as 445,500 plus the additional 72,300 beneficiaries of drinking water systems outside the river basins, under Output 2. This totals to **517,800** people. Please note that combined target populations from Result Area 1 and 2 does not add up to (and exceeds) total direct beneficiaries as these numbers both count farmers that benefit from CSA and water advisories. The total direct beneficiary number removes this duplication.

A 2.0 Increased resilience of health and well-being, and food and water security					<p>Uptake of training and capacity building by provincial, district and community stakeholders on water management, flood/drought and management advisories</p> <p>Efficiency and reach of the SMS-based communication system for flood warning and water management advisories</p>
<b>PROJECT OUTCOMES:</b>					
<p><b>Project Outcomes</b></p> <p>A7.0 Strengthened adaptive capacity and reduced exposure to climate risks</p>	7.1: Extent to which vulnerable households, communities and businesses use improved strategies and activities to respond to climate variability and climate change	0	422,664	770,500 <sup>94</sup> of which 392,955 are women	<p>Completed infrastructure and sustained maintenance for VIS Agrarian Service Centres are able to reach all small holder farmer families in their areas with climate risk information and agriculture packages.</p> <p>There is continued commitment and uptake of the information by targeted communities in the project.</p>
<b>PROJECT OUTPUTS:</b>					

94 The target combines the direct beneficiaries in the three river basins under the three outputs, avoiding overlaps. This was calculated using: (i) the total number of beneficiaries reached under Output 1 which is 520,000 (which subsumes 144,700 of the 217,000 beneficiaries from Output and overlaps with the 520,000 beneficiaries of agricultural advisories under Output 3); (ii) the additional drinking water beneficiaries outside river basin (72,300) not counted under Output 1; and (iii) the additional number of river basin population receiving flood advisories through cascade level water committees and SMS and not counted under Output 1. This would be the non-farming population of the total reached under Output 3 which is about 40% of 445,500 (178,200). The total number of direct beneficiaries is  $520,000 + 72,300 + 178,200 = 770,500$ .

<b>Project Outputs</b> Output 1: Upgrading and enhancing resilience of village irrigation systems and scaling up climate-resilient farming practices in three river basins of the Dry Zone	Extent of minor irrigation under targeted cascades with increased cropping intensity (CI>1.6) <sup>95</sup>  Number of male and female farmers reached through dissemination of climate resilient agriculture technology packages No of women farmers implementing climate resilient agriculture technologies and practices	0  CSA packages are currently not being disseminated.	8875 ha <sup>97</sup>  416,000 <sup>98</sup> of which 212,160 are women	9750 <sup>100</sup> ha  520,000 <sup>101</sup> of which 265,200 are women <sup>102</sup>  16,677 <sup>103</sup>	Village irrigation upgradation is completed on schedule without large disruptions from extreme weather events or from bureaucratic delays in approvals etc.  Agrarian Service Centres are able to reach all small holder farmers through Farmer Organisations  Climate smart packages and agriculture advisories are available in every Agrarian Services Centre
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<sup>95</sup> IW report notes there was a typing mistake in FP and ProDoc – corrected here to > (greater than)

<sup>97</sup> The project is upgrading 325 village irrigation systems in 30 cascades. Each of these VIS currently does not support farmers to complete one full season. The minor season, which is generally dry depends heavily on stored water in the village reservoirs. If there is not sufficient storage, minor season cultivation is abandoned. Therefore cropping intensity, measured by the number of times the irrigated downstream is fully cultivated, is less than 1. By upgrading storage and efficient water allocation, project aims to increase cropping intensity in these village irrigation systems to 1.6 or more, by improving the ability to use the downstream lands during the minor season. According to Department of Agrarian Development each of the Village Irrigation systems has 25-30 hectares as a median command area. So the targets reflect the extent of command area that will directly benefit from the improved irrigation potential and water availability through VIS upgrade. The full extent is 9750 ha but the project assumes that by the mid-term of delivery, around 80% of the farm fields would have increased production in the two seasons.

<sup>98</sup> Output 1 beneficiary number is calculated based on the assumption that the total number of small holder farmers working in village irrigation systems in the three river basins (520,000) will have access to climate resilient agriculture packages disseminated through the 77 Agrarian Service Centres. The mid-term target therefore is calculated on the basis that 80% of this target would be reached by the end of year 04. No of women farmers is 51.2 % of the total.

<sup>100</sup> The project is upgrading 325 village irrigation systems in 30 cascades. Each of these VIS currently does not support farmers to complete one full season. The minor season, which is generally dry depends heavily on stored water in the village reservoirs. If there is not sufficient storage, minor season cultivation is abandoned. Therefore cropping intensity, measured by the number of times the irrigated downstream is fully cultivated, is less than 1. By upgrading storage and efficient water allocation, project aims to increase cropping intensity in these village irrigation systems to 1.6 or more, by improving the ability to use the downstream lands during the minor season. According to Department of Agrarian Development each of the Village Irrigation systems has 25-30 hectares as a median command area. So the targets reflect the extent of command area that will directly benefit from the improved irrigation potential and water availability through VIS upgrade. The full extent is **9750** ha by end of the project.

<sup>101</sup> Output 1 beneficiary number is calculated based on the assumption that the total number of small holder farmers working in village irrigation systems in the three river basins (**520,000**) will have access to climate resilient agriculture packages disseminated through the 77 Agrarian Service Centres (each serving about 6753 farmers). The mid-term target therefore is calculated on the basis that 100% of this target would be reached by the end of year 7.

<sup>102</sup> Output 1 beneficiary number is calculated based on the assumption that the total number of small holder farmers working in village irrigation systems in the three river basins (520,000) will have access to climate resilient agriculture packages disseminated through the 77 Agrarian Service Centres (each serving about 6753 farmers). The mid-term target therefore is calculated on the basis that 100% of this target would be reached by the end of year 7. No of women farmers is 51.2 % of the total.

<sup>103</sup> The project through activity 1.3 will provide investments to women farmers to adopt agro-technology packages that will increase income and food security. This includes 300 women entrepreneurs engaged in value addition of climate resilient crops, 822 small-farmer seed production facilities, 4950 demonstrations of improved home gardens, 8250 low-

		0 <sup>96</sup>	13,209 <sup>99</sup>		
<b>Project Outputs</b> 2. Enhancing climate resilient, decentralized water supply and management solutions to provide year-round access to safe drinking water to vulnerable communities	Number of households with year-round access to reliable and safe water supply  Number of women engaged in managing and maintaining community drinking water supply schemes	0 <sup>104</sup>  0  <1000 <sup>105</sup>	130,200 <sup>106</sup>  >10,000  >10,000	217,000 of which 72300 are based outside river basins <sup>107</sup>  >20,000 <sup>108</sup>	Completed infrastructure and sustained maintenance for water supply systems  Uptake of training and capacity building by women enterprises on sustained O&M.

cost drip systems and 355 farm field water management demonstrations. Another 2000 women will benefit from agro-processing technologies. The total number of beneficiaries is **16,677**.

96 There are no field-level interventions promoting the adoption of climate resilient practices among women farmers currently in 30 cascades and 325 VIS targeted by the project.

99 The project through activity 1.3 will provide investments to women farmers to adopt agro-technology packages that will increase income and food security. This includes 300 women entrepreneurs engaged in value addition of climate resilient crops, 822 small-farmer seed production facilities, 4950 demonstrations of improved home gardens, 8250 low-cost drip systems and 355 farm field water management demonstrations. Another 2000 women will benefit from agro-processing technologies. The total number of beneficiaries is 16,677 of which 75% will be reached by end of year 4

104 Project investments will go in to communities that do not currently have access to year round and safe (treated, sterilized and filtered) water. So the baseline value is 0 (based on the year-round availability – these communities do have access for some of the year and for these periods, they purchase water)

105 While many water supply schemes are run by women-led CBOs field surveys showed that they need capacity development and institutional strengthening support to effectively manage the O&M and business model of community water supply. Active engagement of women in the project target river basins is estimated as less than 1000 women.

106 The mid-term target for drinking water access is 60% of the total beneficiaries reached.

107 There will be **217,000** (includes beneficiaries of advanced purification and filtration systems: 131,000; CWSS: 70,000; and RWH: 16,000) people benefitting from the different drinking water interventions that the project will invest in linked to the village irrigation systems. Of these, geographically, 70% of the systems (and therefore 144,700 beneficiaries) are located within the 3 river basins and remaining 30% of them or 72,300 of these beneficiaries will be located outside the river basin boundaries but within the associated 07 districts, targeting divisions with high vulnerability to CKDu, salinity and poverty. The 217,000 population includes the beneficiaries of 4000 rainwater harvesting tanks (individual households) and 35 community managed water supply schemes and 125 advanced filtration systems for locations with serious water quality issues.

108 The project aims to provide training and capacity building and institutional strengthening to at least 400 women led CBOs by the project's end. Each CBO will have an estimated 50 members of whom at least 5 will earn an income from maintaining the water supply scheme.

<b>Project Outputs</b> 3. Strengthening climate and hydrological observing and forecasting system to enhance water management and adaptive capacity of smallholder farmers to droughts and floods	Number of female and male farmers reached through seasonal forecast for agriculture planning	0 <sup>109</sup>	156,000 of which 79,560 are women	520,000 <sup>111</sup> of which 265,200 are women	
	Number of female and male farmers receiving advisories for water management	0 <sup>110</sup>	133,650 of which 68,161 are women	445,500 <sup>112</sup> of which 227,205 are women	

109 The developed seasonal forecasts (as of Maha 2015) are disseminated to the PDOA but is yet to reach the farmer organizations with practical and timely advice on adaptation to the forecast.

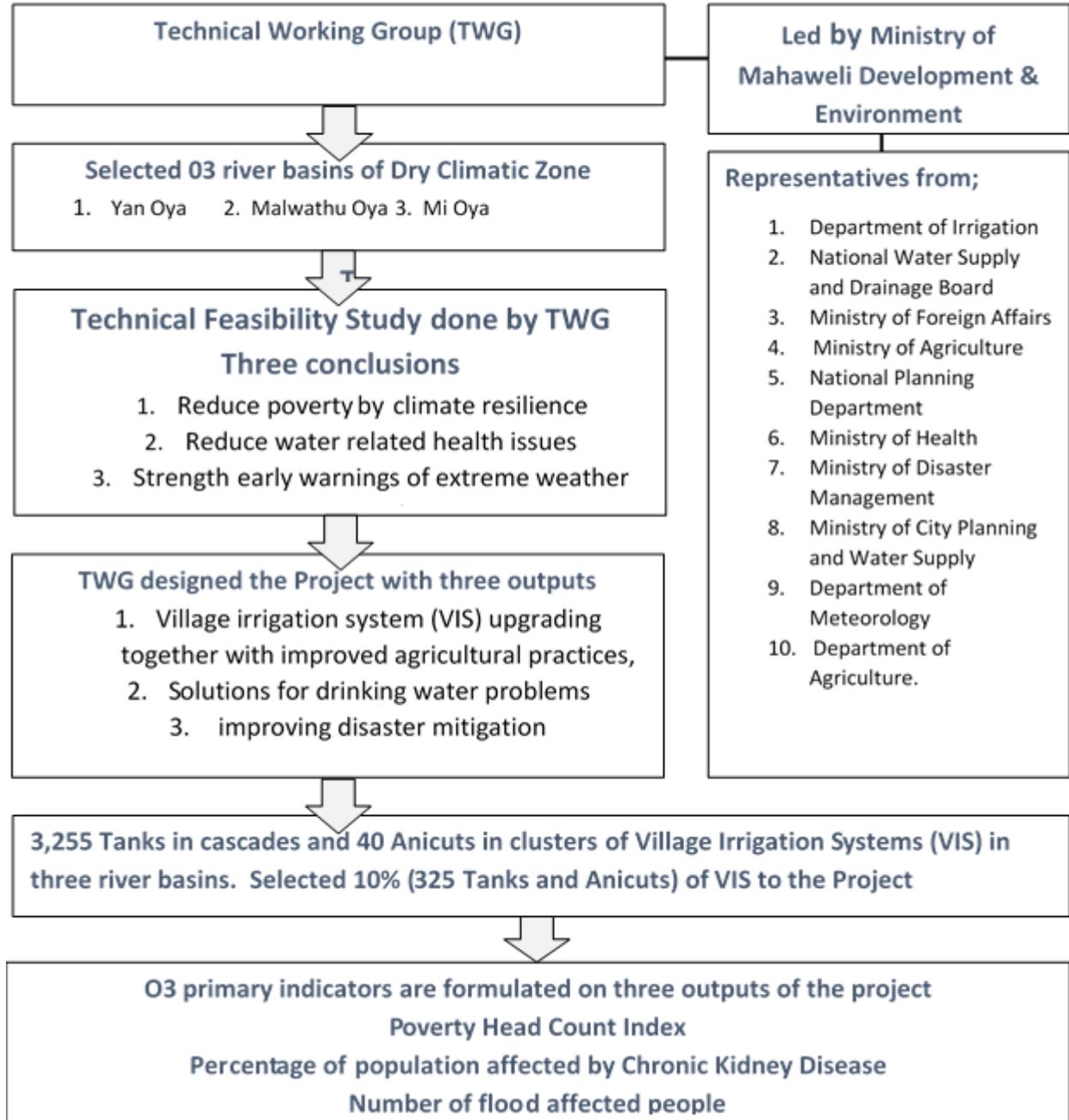
110 There is currently no SMS service for flood early warnings.

111 The forecasts and agricultural advisories will be disseminated through 77 Agrarian Services Centres in the three river basins. Farmers will contribute to the preparation of these advisories through ASCs and have access to the advisories through seasonal cultivation meetings at each village irrigation system, twice a year. These advisories will reach **520,000** small holder famer population who are connected to the 77 ASCs (serving about 6753 farmers each) for service delivery through both agriculture and agrarian services extension services which also will deliver tailored, climate resilient agro-technology packages to these farmers under Output 1.

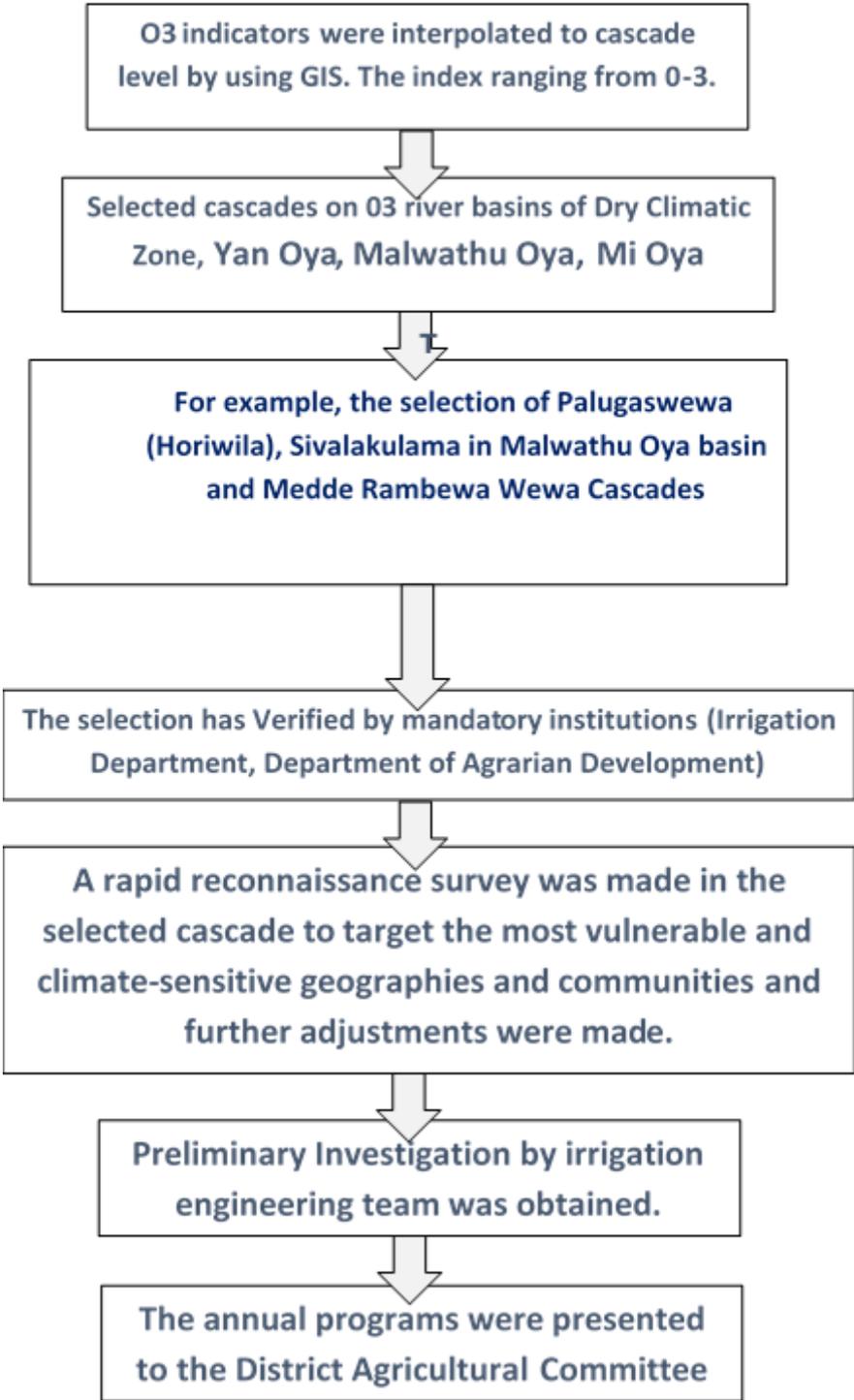
112 The Cascade Level Committees are the primary target for flood advisories for water management. Each cascade level water committee will reach around 4800 people (each cascade= 12 VIS/ each VIS=100 familiesx4 members) comprising of farmers benefitting from village irrigation systems, farmers working in non-irrigated lands and non-farming households. The project will form cascade water management committees bringing together the local-level representatives of drinking water supply systems and Farmer Organisations in 50 cascades. This is a total of 240,000 people directly reached through such committees. Of the remaining river basin population (925,000-240,000=685000), we also count those people benefitting from SMS service, Given the penetration of mobile phones according to statistics and recent survey (<http://www.tradingeconomics.com/sri-lanka/mobile-cellular-subscriptions-per-100-people-wb-data.html> and <http://dbsjeyaraj.com/dbsj/archives/20172>) is round 40-50%, we use a conservative estimate of 30% as actually receiving the SMS advisories. Therefore, this amounts to 205,500. The total number of beneficiaries from water related EWs and advisories is a sum of those reached by cascade level committees and SMS. **(445500)**

## Annex 15: Cascade identification process

### Defining criteria for prioritizing the cascades



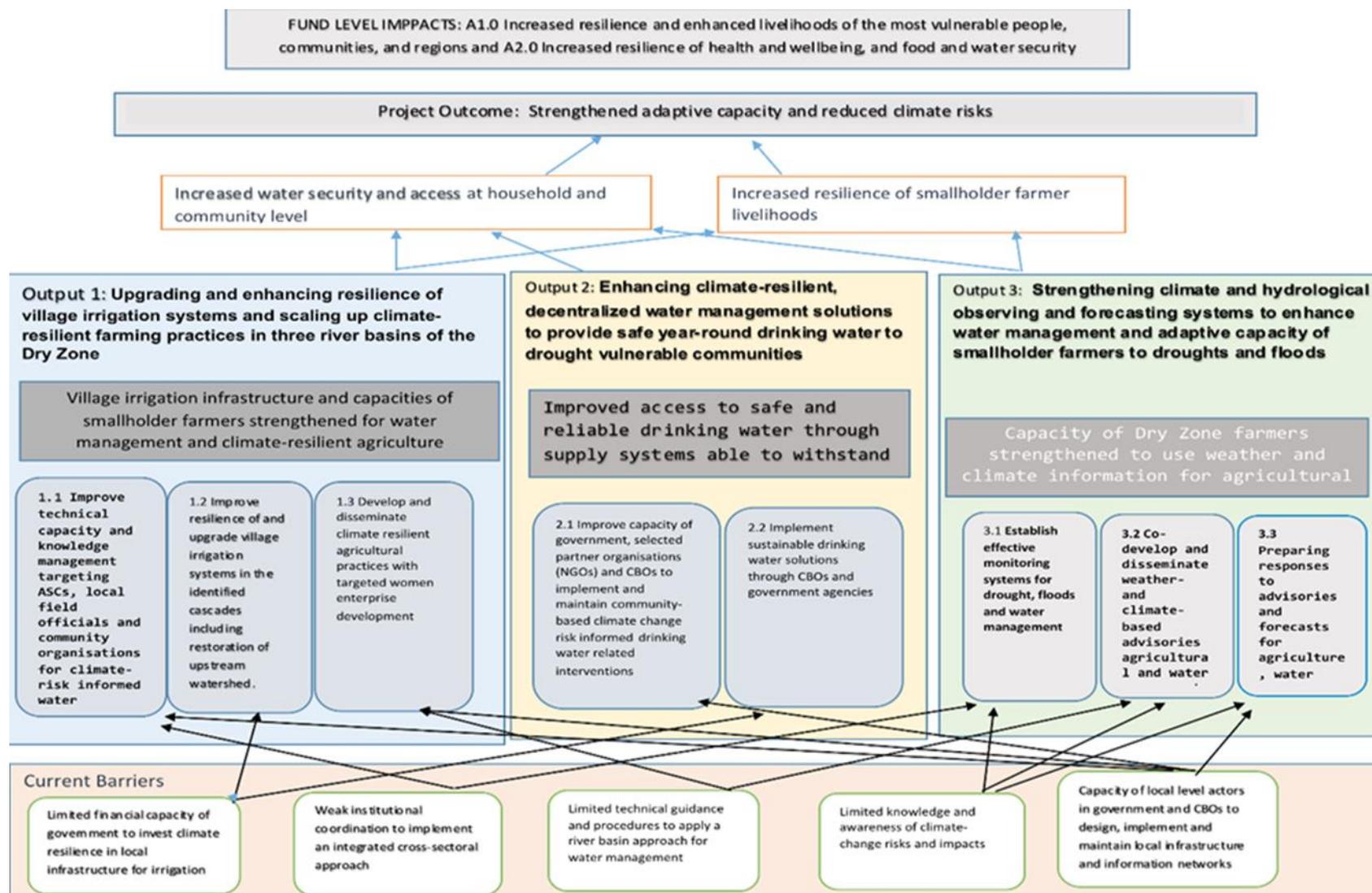
**Process of Identification the Cascades**



## Annex 16: Information on the other conditions and covenants of the Funded Activity Agreement

Clause #	Description	Commentary on of Information Relating to CRIWMP
1	Definitions: AMA	<p>1.03</p> <p>(p) Following the Presidential election in November 2019, there has been a reshuffling of the ministerial portfolios. These included the split of the Ministry of Environment and Mahaweli Development into two entities, namely the Ministry of Environment (MoE) and the Ministry of Mahaweli, Agriculture, Irrigation, and Rural Development. Following the Parliamentary Elections in August 2020, the Ministry changed again and now the responsibility of the project lies with the Ministry of Irrigation (Mol). Owing to these changes, the Mol serves as the EE / IP.</p> <p>(s) Ministry of Disaster Management has been dissolved and agencies under the purview of the Ministry of Disaster Management have been moved under the Ministry of Defence and later to the State Ministry of National Security, Home Affairs and Disaster Management.</p>
2	The Funded Activity	<p>2.02 Following the Presidential election in November 2019, there has been a reshuffling of the ministerial portfolios. These included the split of the Ministry of Environment and Mahaweli Development into two entities, namely the Ministry of Environment (MoE) and the Ministry of Mahaweli, Agriculture, Irrigation, and Rural Development. Following the Parliamentary Elections in August 2020, the Ministry changed again and now the responsibility of the project lies with the Ministry of Irrigation (Mol). Owing to these changes, the Mol serves as the EE / IP.</p>
3	The Grant Disbursement	
4	Accredited Entity Fee	
5	Administration of Grant by Accredited Entity	
6	Effectiveness	
7	Report, Monitoring & Evaluation Schedule	<p>7.01 IE was to begin December 2020 , delayed to begin end March 2021 due to cash flow issues (partial disbursement of tranche 4 of GCF grant in 2020)</p>
8	Conditions Precedent to Disbursement	
9	Additional Representations, Warranty & Covenant of the Accredited Entity	
10	Additional Remedies to the Fund	
11	Step-in Rights	
12	Applicable Law; Dispute Resolution	
13	Designated Authority; Notices	
14	Miscellaneous	

## Annex 17: CRIWMP Theory of Change



## Annex 18: Key Information from the Restructuring Proposal<sup>113</sup>

**Output 2: Enhancing climate resilient, decentralized water supply and management solutions to provide year-round access to safe drinking water to vulnerable communities.**

**Activity 2.2: Implement sustainable, climate-resilient drinking water solutions through CBOs and government agencies**

Project interventions for Output 2 were designed to provide safe drinking water to the Dry Zone community and originally comprised of the following interventions with the expected beneficiary number for each:

- Advanced purification and filtration systems: 131,000 (70 large units serving 112,000 members in 400 HHs, 55 serving 19,000 people in schools and hospitals)
- 35 community water supply schemes (CWSSs): 70,000
- 4,000 units of rainwater harvesting: 16,000

Of the total expected beneficiaries of 217,000, 30% or 72,300 were expected to come from outside of the three river basins but from the target seven districts.

The expected locations for Activity 2.2 were based on the water source investigation completed during the FP design stage. The technical specifications and budgeting were completed accordingly with the following key parameters:

- The maximum distance of the pipeline to the dwelling of any user should not exceed 200m;
- The capacity of minimum of 40 litres per person per day;
- A simple treatment method should be sufficient based on the quality of water.

LKR 20 million per scheme (equivalent to approx. US\$100,000) was budgeted for CWSSs.

Following Inception, the project was compelled to search for new sources in remaining areas that were in more remote locations where water resources were extremely scarce. By mid-2019, the IP used their own resources to investigate 102 locations, of which 30 proceeded to more detailed assessments and finally only 16 locations were considered to possess adequate quality and quantity of water. The 16 newly identified water sources yielded poorer quality water than originally expected in the FP. This resulted in requiring a higher level of water treatment to meet the national quality standards. The treatment measure expected to be used originally was simple roughening filter that removes solids and mud particles whereas the actual measure that is currently used is simplified conventional treatment systems that are capable of filtering dissolved chemicals (hardness, salinity and fluoride) and organics and of removal of colour. Furthermore, the new sources were located further away from end-users, longer transmission pipeline and larger pumping systems. This resulted in increased costs/scheme (see Table A18.1).

**Table A 18.1 Increase in the unit cost of delivering fresh water to the target population**

	Before the changes	After the changes
CWSSs	\$100,000/scheme	\$555,000/scheme
RWH	\$462.5/system	\$450/system
AFS		
a) Large scale	\$16,000/scheme	\$43,750/scheme
b) Small scale	\$4,000/unit	\$8,000/unit

The challenge of identifying water sources for CWSSs affect project inputs under Activity 2.2 (see Table A18.2).

<sup>113</sup> Final version dated 5 April 2021

**Table A18.2: Changes in project inputs for Activity 2.2**

Project inputs	Original (As per the approved FP)	Proposed after restructuring
2.2.1	Design and implement 35 climate-resilient community water supply schemes	Design and implement 7 climate-resilient community water supply schemes
2.2.2	Install 125 water treatment and purification systems to existing drinking water intakes to ensure quality and safety	Install 86 water treatment and purification systems to existing drinking water intakes to ensure quality and safety
2.2.3	Construct 4,000 household rainwater harvesting units of 5000 liters for women-headed or disability or chronic disease-affected households	This input remains as is with the original FP
2.2.4	Enhance water quality monitoring and source protection through source protection committees, incorporating CC risks and impacts	This input remains as is with the original FP

The impact potential, the number of people who are to benefit from the freshwater investments, has been reduced due to the restructuring (see Table A18.3).

**Table A18.3: Output 2 - Changes in impact potential**

Interventions	Original beneficiary number	Revised beneficiary number
<b>CWSS</b>	70,000	9,204 from GCF grant 4,244 from Government co-finance <sup>114</sup>
<b>Rainwater harvesting</b>	16,000	16,000
<b>Advanced purification and filtration systems</b>	131,000	93,267
<b>Total</b>	<b>217,000</b>	<b>122,715</b>

These changes in unit costs are translated in the form of a reduced number of interventions (as opposed to a request for additional budget), and hence the changes in the number of beneficiaries (see Table A18.4).

**Table A18.4: Project design changes – the number of project beneficiaries**

	Before the changes (a)	After the changes (b)	Variance of beneficiaries (b-a)
<b>Direct beneficiaries</b>	<b>770,500</b>	<b>780,221</b>	<b>9,721</b>
<b>Indirect beneficiaries</b>	<b>1,179,874</b>	<b>1,157,552</b>	<b>-22,322</b>
<b>Target under Fund-level indicator A2.0</b>	<b>517,800</b>	<b>453,118</b>	<b>-64,682</b>
<b>Beneficiaries from freshwater investments in Output 2</b>	<b>217,000</b>	<b>122,715</b>	<b>-94,285</b>
• Community Water Supply Schemes (CWSSs)	70,000	13,448	-56,552
• Rainwater harvesting	16,000	16,000	0
• Advanced purification and filtration systems	131,000	93,267	-37,733
<b>Additional Direct Beneficiaries through targeted training on water source protection and management</b>		74,403	74,403

### Co-financing changes

The Government of Sri Lanka has made a commitment to additional co-financing of \$129,000 to expand the target group of training on water source protection, management of community water supply

<sup>114</sup> It is proposed that part of the GoSL co-financing originally committed for source investigation, testing and monitoring, is shifted towards the construction of CWSSs. This shift would take place within the same project activity.

systems, water safety and security planning. This allows additional 74,403 people living outside of the river basins to receive the training.

Also part of co-financing originally earmarked for source investigation, construction supervision, and O&M is reallocated towards the construction of CWSSs (see Table A18.5)

**Table A18.5: Reallocation of co-finance to support proposed changes**

Activity	Sub Activity	Before Change (USD)	After Change (USD)
2.2 Implement sustainable drinking water solutions through CBOs in coordination with the ASCs and National Water Supply and Drainage Board (NWSDB)	Contractual services (source selection, investigation etc.)	3.5	2
	Contractual services (Kelewa and Hawana CWSS construction)		1.5

### **Sustainable Development Potential**

As a result of the reduction in the direct beneficiaries, economic benefits of the project are affected slightly. The economic benefits from improved access to safe and reliable drinking water are captured in the form of labour hours saved. However, it does not change the overall conclusion that the project is economically feasible with positive NPVs and EIRRs exceeding the minimum threshold of 10%.

It is also important to note that the new 122,715 beneficiaries, who will have access to safe and reliable drinking water as a result of this project, were those who were in more vulnerable conditions. This is because new water sources were investigated in locations of extreme climate vulnerability where most marginalized communities live and the water quality to be in much poorer conditions (See Annex I). Without the project interventions, these communities would have been left with no other option but continuing to use the contaminated water and expose themselves to a greater risk of CKDu. The project interventions ensures that 122,715 people have access to freshwater that meets the national minimum quality standards. In this regard, while the number of beneficiaries is lower, the intensity of benefits and the impact is possibly higher as more vulnerable populations than planned are reached by the project.

### **Changes in Economic and Financial Analysis**

A NEW COST BENEFIT ANALYSIS, WITH THE REDUCED NUMBER OF HOUSEHOLDS BENEFITING FROM IMPROVED ACCESS TO SAFE AND RELIABLE DRINKING WATER, SHOWS THE DISCOUNTED (AT 10%) NET PRESENT VALUE OF THE PROJECT IS VALUED AT ABOUT 27.9 MILLION USD, DOWN FROM 34.7 MILLION USD WHICH WAS PRESENTED IN THE ORIGINAL FUNDING PROPOSAL. THE UPDATED ECONOMIC INTERNAL RATE OF RETURN IS 19.5%, DOWN FROM 22%. THIS DOES NOT CHANGE THE OVERALL CONCLUSION THAT THE PROJECT IS ECONOMICALLY FEASIBLE.

UNDER DIFFERENT TEST CASES WHERE 20% LOWER BENEFITS, 20% HIGHER COSTS, AND 20% LOWER BENEFITS & 20% HIGHER COSTS WERE ASSUMED, ALL BUT THE LAST CASE SHOWED POSITIVE NPVS AND EIRRS EXCEEDING THE MINIMUM THRESHOLD OF 10%. UNDER THE WORST-CASE SCENARIO, THE NPV IS NEGATIVE AT MINUS 2.1 MILLION USD WITH IRR AT 9.2%.

HOWEVER, THE BENEFITS FROM IMPROVED ACCESS TO SAFE AND RELIABLE DRINKING WATER ARE MEASURED ONLY IN THE FORM OF SAVED LABOUR COSTS, AND THE LIKELY IMPACTS OF REDUCED DISABILITY-ADJUSTED LIFE YEARS (DALY) THROUGH REDUCED CASES, AND SEVERITY, OF CHRONIC KIDNEY DISEASES AND MANY OTHER BENEFITS ARE NOT CAPTURED IN THE ECONOMIC ANALYSIS. SO THE PROJECTED ECONOMIC BENEFITS OF THE PROJECT ARE LIKELY TO BE A SIGNIFICANT UNDERESTIMATE.

THE ARGUMENT THAT A FINANCIAL ANALYSIS WAS NOT PERTINENT TO THIS PROJECT, GIVEN THE PROPORTION OF FINANCIAL FLOWS AT THE CBO LEVEL RELATIVE TO THE PROJECT COSTS, WAS PRESENTED IN THE ORIGINAL FP AND APPROVED. THUS, THIS ARGUMENT REMAINS UNCHANGED.

## Annex 19: Project Output Indicators - Cumulative District Level Progress Reported to IE (April 2021)<sup>115</sup>

Output	Indicator	Districts						Cumulative Progress by MTR	MTR Target	Progress Percentage	
		Kurunegala	Puttalam	Anuradhapura	Vavuniya	Mannar	Trincomale				Polonnaruwa
01	<b>1.1 Extent of minor irrigation under targeted cascades with increased cropping intensity (Cropping Intensity more than 1.6)</b>	14	31	89	36	6	47	NA <sup>116</sup>	223	295	75.59%
	<b>1.1.1. Number of tanks brought for cultivation after rehabilitation</b>										
	<b>1.1.2 Extent with increased cropping intensity (ha)</b>	183	323	2,187	640	NA	1,080	NA	4,413	8,875	49.72%
	<b>1.2 Number of male and female farmers reached through dissemination of climate resilient agriculture technology packages</b>	74,283	54,024	195,837	33,765	40,518	54,024	6,753	459,204	416,000	110.38%
	<b>1.3 No of women farmers implementing climate resilient agriculture technologies and practices</b>	2,261	4,982	4,284	2,994	485	2,349	478	17,893	13,209	135.46%
02	<b>2.1 Number of households (beneficiaries) with year-round access to reliable and safe water supply</b>	3,564	5,249	924	22,111	NA	NA	NA	31,848	130,200	26%
	<b>2.2 Number of women engaged in managing and maintaining community drinking water supply schemes</b>	378	396	412	184	125	180	254	1,929	> 10,000	19.29%
03	<b>3.1 Number of female and male farmers reached through seasonal forecast for agriculture planning</b>	74,283	54,024	195,837	33,765	40,518	54,024	6,753	459,204	156,000	294.36%
	<b>3.2 Number of female and male farmers receiving advisories for water management</b>	6,214	9,286	52,627	14,497	7,968	9,803	NA	100,395	133,650	75.68%
	<b>Overall project progress</b>										On track

<sup>115</sup> Sources: Quarterly Review Reports, Verified with field missions, April 2021

<sup>116</sup> No Activities have been implemented in these districts

## Annex 20: How CRIWMP is Addressing the Threats and Removing of Barriers

### Addressing the threats

- \* Limited capacity among farmer organizations, Government officials and other partner organizations to design and implement integrated solutions;
  - This is being addressed through training programs, awareness programs, providing maintenance equipment.
- \* Inadequate operations and maintenance (O&M) of the local level community managed interventions can lead to reduced viability and impact of the water and early warning / forecasting solutions;
  - The project developed an operation and maintenance plan, which included the technical information such as Tank capacity and its relation to depth of water, responding to rainfall, and provided gauges to measure depth of water, water deliveries, and rainfall. Maintenance equipment were provided as well, together with related training so that the system would sustain after the project
- \* Limited co-ordination among agencies and stakeholders can lead to inefficiencies in the implementation and impact of the project interventions;
- \* Delays in completion of the infrastructure due to issues such as rainfall season and non-availability of construction materials;
  - The project used the improved weather forecasts to implement construction activities. The non-availability of construction material occurred only during the COVID19 period, but that was also handled through using mostly locally available materials.
- \* Climate shocks can lead to a risk of damage to the project investments, affecting implementation as well as sustained impact post project;
  - Addressed as described above
- \* Lack of financing for O&M of irrigation systems for sustained impact of investments;
  - The Project is preparing a financing plan for each cascade where the interventions are substantially complete, with the beneficiaries and government stakeholders to improve financing for O&M
- \* Sediment movement during the rehabilitation of irrigation infrastructure;
- \* Production of waste;
- \* Risk of conflict and grievances among beneficiaries around selection and water use.

### Removing the barriers

- \* Limited financial capacity of communities and government agencies to sustainably meet the incremental costs of adaptation;
  - A number of interventions were implemented especially through the CSA component to increase the incomes
- \* Weak institutional coordination to implement a climate-risk informed, river basin approach in village irrigation cascade systems;
  - An improved institutional model to implement a climate risk-informed village irrigation cascade systems was developed by the project, in consultation with the farmers and local officials. It is planned to obtain the necessary policy and legal support for the mechanism
- \* Limited technical capacity on climate resilient practices, including for infrastructure development, in irrigation, agriculture and drinking water supply;
  - The project contributed to increase the technical capacity by contributing to policy development, improved technical guidelines for irrigation works... The improved and updated Technical Guideline for Irrigation Works is prepared with the Irrigation

Department, the main national technical organization for irrigation sector. It involves making use of the current rainfall intensities, modern methods of irrigation scheduling, introducing new structural design methods for irrigation works, and improving environmental sustainability in irrigation designs. In addition, automatic stream flow gauges, rain gauges and agrometeorological stations were proved at the river basin level to enhance the technical capacity needed for climate resilience. A CXSA guideline is prepared to ensure increased policy support for technical interventions

- \* Limited knowledge and awareness of climate-change risks, impacts, and adaptation solutions related to water management;
  - o The knowledge and awareness were improved through a series of awareness programmes and field level training
- \* Limited community capacities to design integrated solutions, sustainably manage rural infrastructure and resolve user conflicts over water management.
  - o The capacities of the community were improved through participatory design of an integrated Cascade Water Resources Development and Management Plan involving surface water, groundwater, agriculture systems, ecosystem management, drinking water and disaster management, and promoting wider community participation in the management of infrastructure and ecosystems.

## Annex 21: COVID-19

### Context

In March 2020, in response to growing numbers of COVID-19 cases in Sri Lanka, an island-wide lockdown was imposed (lasting 2 months). A Presidential Task Force was established to combat the health crisis and its ripple effects on different sectors of the economy and to ensure that essential services continued unhindered. The agriculture sector was one of the worst affected sectors by the pandemic and subsequent lockdowns, resulting in breakdowns of supply and value chains during peak harvesting periods and the price collapses of agricultural produce, which directly affected the CRIWMP Output 1. New GoSL policies imposed to adapt to the impacts of COVID on import restrictions, due to debt burden and US Dollar shortage have affected the importation of materials for the project, notably for Outputs 2 and 3.

### Responses of the project to impacts of COVID

Sustaining agricultural productivity was considered critical to ensuring food security and against this backdrop, the project, together with the Ministry of Agriculture (MoA), rolled out climate-smart agricultural support to poor urban and suburban households in selected districts (under Output 1). The project promoted urban agriculture, particularly among women farmers, through the distribution of planting material and farming equipment, along with the required training for 2,600 people.

During the south-west monsoon season in 2020<sup>117</sup>, it became apparent that the districts that were likely to have the highest incidence of COVID-19 cases coincided with the districts that were also vulnerable to flooding during the monsoon. The project supported the operationalization of health and safety guidelines issued by the Ministry of Health, delivered 10,000 surgical masks and 30 infrared thermometers to the Disaster Management Center, to be distributed to disaster relief centres, search and rescue teams and to those affected by the monsoons. Also, together with the Sri Lanka Red Cross Society, the project team organized additional resources for flood preparedness and response, including by mobilizing volunteers to conduct awareness programmes on camp management amid a pandemic and towards providing facilities for screening, disinfecting (handwashing) and personal safety in the camps.

The project supported the Disaster Management Centre (DMC) and the National Disaster Relief Services Centre in the development of an emergency preparedness plan and coordination arrangement for the monsoon season. The project also provided Zoom software facilities to the DMC to facilitate coordination and communications amongst stakeholders at a crucial time. In support of risk assessment and analysis, the project developed resource maps required for emergency planning and response in 40 high-risk areas, which were supplied to the relevant authorities.

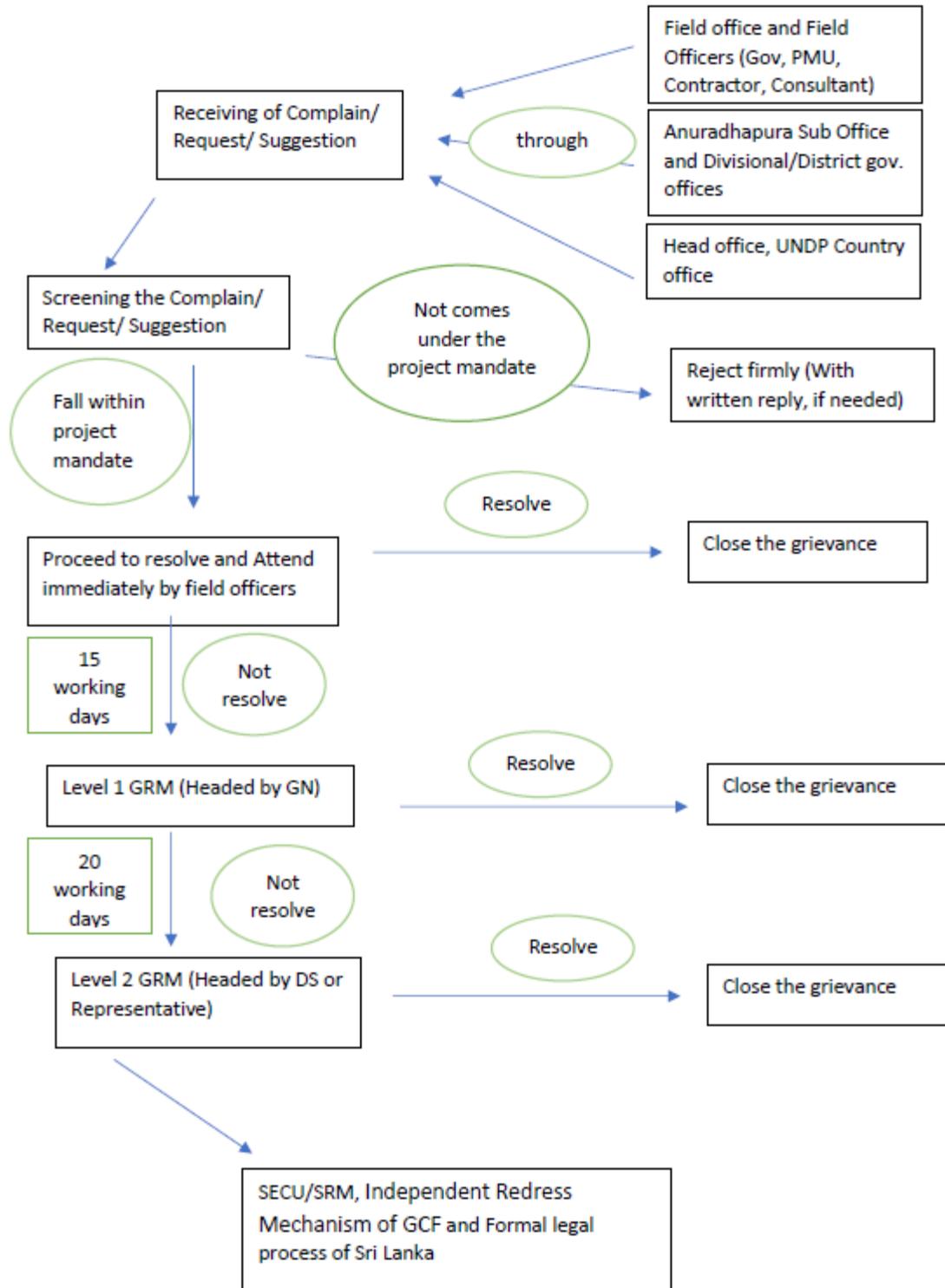
Moreover, it facilitated preparedness and response activities in schools in the project locations, benefitting over 4,100 students, through the provision of handwashing facilities, basic hygiene items, first aid training, and COVID-19 awareness and hygiene promotion programmes, to reduce transmission risk. Similar assistance was provided to government officers within the project locations, to ensure that staff can practice safe hygiene.

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<sup>117</sup> “yala” – April / May to September

## Annex 22: CRIWMP Grievance Redress Mechanism

Grievance Redress Mechanism- Flowchart



### **Grievance Redress Committee (GRC)**

The structure of the committee at First Tier would be.

- a. Grama Niladari (Chairman), Economic Development Officer and Agrarian Research and Production Assistant (ARPA) of respective GN division;
- b. PMU representative (Safeguard Specialist and/or Field Coordinator of respective district)- Secretariat;
- c. Representatives from Civil Society Organization (CSO), contractor and consultant;
- d. Representatives from Farmers' organizations and communities (both male and female would be selected by the community at GRC formation meeting).

Note: For the Rural Water Supply Schemes, project use Village Coordination Committee (VCC) which is the predecessor to Community Based Organizations on Drinking Water or Executive committee of the CBOs as the first tier GRC.

The Structure of the committee in the second tier would be (Participation of the officers depend on the case and the necessity).

- a. Divisional Secretariat or Representative – Chairman;
- b. Safeguards Specialist and/or Field Coordinator from PMU (Secretariat);
- c. Agrarian Development Officer, d. Agriculture Instructor/s;
- e. Divisional officer or representative from DNCWS;
- f. Representative of the non-government organization/civil society working in the area;
- g. Grama Niladharis of the area;
- h. Representatives of farmers' organizations and communities;
- i. Representatives from contractor (site in charge) and consultant;
- j. Religious leader/ a clergy of the area (if applicable and necessary);
- k. Chairman/representative of mediation board (if applicable and necessary);
- l. Representatives from Forest Department and Department of Wildlife Conservation (if applicable).

Annex 23: Partner CSOs' Cascade Development Status<sup>118</sup>

District and Partner CSOs	Cascade	River Basin	Number of Tanks	Number of Anicuts (Amunu)	Achievement (Number or percentage)	Status of the Constructions
Anuradhapura Janathakshan	Bandarakumbuk Wewa	Yan Oya	11	01	100% Planned Population already achieved	Completed, but Rehabilitation of one tank (In heavy Forest) has not yet been done due to disagreement of the Archaeological, Forest and Irrigation Institutions with the project.
	Palugaswewa	Malwathu Oya	09	01	100%	Completed
	Sivalakulama	Malwathu Oya	20	00	100%	Completed
	Thudduvakaikulam (Anuradhapura Fragment)	Malwathu Oya	11	00	72%	only 3 tanks constructions are ongoing
	Rathmale	Yan Oya	14	00	0%	Construction has started since April 2021
	Aluth Halmillawa	Malwathu Oya	22	08	0%	Construction has started since April 2021
	Karamba Wewa	Malwathu Oya	07	00	0%	Constructions will be commenced in 2022
	Divulwewa - Minihettigama	Malwathu Oya	16	01	0%	Constructions will be commenced in 2022
Vavuniya PALM Foundation	Mathahuvaithakulam	Malwathu Oya	14	00	100%	Completed
	Thudduvakai Kulam (Vavuniya Fragment)	Malwathu Oya	22	05	100%	Completed
Kurunegala Red Cross	Anguruwella	Mi Oya	09	02	100%	Completed
	Mamunuwa	Mi Oya	06	02	100%	Completed
	Mottapeththewa	Mi Oya	10	02	0%	Constructions will be commenced in 2022

<sup>118</sup> Source: Annual Progress Reports, also NC's field mission notebooks (April 2021)

	Kadawala (Kurunegala Fragment)	Mi Oya	16	01	0%	Construction has started since April 2021
Puttalam SAPSRI	Maddarambawewa	Mi Oya	25	01	100%	Completed
	Kadawala (Puttalam Fragment)	Mi Oya	09	00	0%	Construction has started since April 2021
Trincomalee Janathakshan	Kumbuk wewa	Yan Oya	17	00	0%	Constructions will be commenced in 2022
	Ethabandi Wewa	Yan Oya	18	08	0%	Constructions Plan to be 2022
Polonnaruwa UNDP	No cascade					
Mannar	Sinnakunchikkulam	Malwathu Oya	13		0%	Constructions Plan to be 2022
<b>Total</b>	<b>17 Cascades</b>		<b>269</b>	<b>32</b>		

## Annex 24: M&E budget and spending

<b>GCF M&amp;E requirements</b>	<b>Primary responsibility</b>	<b>Original Budget in ProDoc (GCF Grant)</b>	<b>Expenses</b>	<b>Expenses as % of Total Budgeted</b>
<b>Inception Workshop</b>	UNDP CO	11,000.00	2,030.00	18.45%
<b>Monitoring of indicators in project results framework</b>	National Project Director	200,000.00	95,000.00	47.50%
<b>NIM Audit as per UNDP audit policies</b>	UNDP CO	21,000.00		0.00%
<b>lesson learned, case studies and knowledge generation</b>	National Project Director	35,000.00	17,500.00	50.00%
<b>Monitoring of environmental and social risk, and corresponding management plans a relevant</b>	National Project Director / CO	35,000.00	17,500.00	50.00%
<b>Monitoring of gender action plan</b>	National Project Director / CO	42,000.00	7,106.00	45.49%
			12,000.00	
<b>Monitoring of stakeholder engagement plan</b>	National Project Director / CO	28,000.00	10,000.00	35.71%
<b>Addressing environmental and social grievances</b>	National Project Director / CO	145,000.00	70,000.00	48.28%
<b>GCF learning missions / Site visits</b>	NPD / CO / GEF team	3,000.00	1,500.00	50.00%
<b>Interim independent evaluation and management response</b>	UNDP CO/ project team & UNDP / GEF team	20,000.00		0.00%
<b>Final independent evaluation included in UNDP evaluation plan, and management response</b>	UNDP CO/ project team & UNDP / GEF team	35,000.00		0.00%
<b>Total</b>		<b>575,000.00</b>	<b>232,636.00</b>	<b>40.46%</b>