

ADAPTATION FUND

REQUEST FOR PROJECT/PROGRAMME FUNDING FROM THE ADAPTATION FUND

The annexed form should be completed and transmitted to the Adaptation Fund Board Secretariat by email or fax.

Please type in the responses using the template provided. The instructions attached to the form provide guidance to filling out the template.

Please note that a project/programme must be fully prepared (i.e., fully appraised for feasibility) when the request is submitted. The final project/programme document resulting from the appraisal process should be attached to this request for funding.

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ADAPTATION FUND

LOCALLY-LED ADAPTATION
PROJECT/PROGRAMME PROPOSAL FOR SINGLE COUNTRY

PART I: PROJECT/PROGRAMME INFORMATION

Title of Project/Programme: Batticaloa **C**limate Smart **A**daptation & **R**esilience through **E**cosystems (**B-CARE**)

Country: Sri Lanka

Thematic Focal Area: Climate resilience and early warning systems; water management

Type of Implementing Entity: Multilateral Implementing Entity

Implementing Entity: United Nations Human Settlement Programme: **(**UN-Habitat)

Executing Entities: Ministry of Environment (MoE)
District Secretariat Batticaloa
Batticaloa Municipal Council (MC),
Kattankudy Urban Council (UC)
Eravur Urban Council (UC),
Village Disaster Management Committees (VDMCs)
Farmer organizations

Amount of Financing Requested: 5,000,000 (in U.S Dollars Equivalent)

Amount of Requested financing for PFG: 143,220 (in U.S Dollars Equivalent)

Letter of Endorsement (LOE) signed: Yes x No ☐

Stage of Submission:

☒ This proposal has been submitted before including at a different stage (pre-concept, concept, fully- developed proposal)
☐ This is the first submission ever of the proposal at any stage

In case of a resubmission, please indicate the last submission date: 16.07.2026

Please note that fully-developed proposal documents should not exceed 100 pages for the main document, and 100 pages for the

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Project / Programme Background and Context:

Background and country context

1. Sri Lanka, an island nation with an extent of 65,610 km², and due to a combination of political, geographical, and social factors is recognized as one of the most vulnerable countries to climate change impacts[1] Whilst recovering from an economic crisis Sri Lanka continues to incur significant ongoing climate related losses estimated at USD 380 million (0.4% of GDP) projected to grow to 3.5% of GDP by 2050[2]. Since 2011, high-impact disasters have occurred regularly, affecting an average of over 1 million people per year[3]. From 2008 to 2014, 35 climate related disasters were recorded, while from 2015 to 2022 this surged to 304 instances[4]. Vulnerability is further compounded by settlement patterns of Sri Lanka's population of 21.7 million[5], nearly 50% reside predominantly in the dry zone and coastal areas where exposure to climate hazards such as flash floods and prolonged droughts, continuously disrupt livelihoods and the economy[6].

2. The most recent disaster, Cyclone Ditwah which made landfall on 28 November 2025 saw unprecedent destruction in all 25 Districts of the country, with 8 districts including Batticaloa reporting severe damages7. The total economic loss is estimated to be around USD –1.4 billion – this is more than the country's foreign reserves[8]. Notably, the country had just begun to take steps towards economic recovery, following cumulative shocks of terrorist attacks (2019), shocks of the pandemic (2020) and followed by an economic crisis (2022) which has had compounding impacts on vulnerable communities. The Government of Sri Lanka is recognizing that the rebuilding should not be limited to repairing what was damaged, but in the best principles of building back better, the need to recover natural buffers, including wetlands, mangroves, and natural drainage, combined with urban planning and land use and management plans is imperative for disaster risk reduction.

3. Sri Lanka is affected by multiple forms of flooding such as riverine flooding, flash flooding, and coastal flooding. In addition to their direct impacts, flood events interplay with other hazards, including landslides and the spread of vector-borne diseases such as dengue, chikungunya and leptospirosis. These cascading and compounding risks disproportionately affect low-income and informally settled communities with limited access to resilient infrastructure, adequate basic services, early warning systems, and health services, significantly increasing their vulnerability to climate-induced flood events. The flood return period has drastically changed and what would historically have been a 1-in-100-year flow, could become a 1-in-50-year or 1-in-25-year event in some cities.

4. As per the 2019 report of World Bank, average annual wellbeing losses due to fluvial flooding in Sri Lanka is estimated at US$119 million per year, more than double the asset losses of US$78 million[9]. These figures underscore the scale of climate-induced loss and damage, particularly non-economic losses such as impacts on human health, livelihoods, productivity, and long-term development outcomes, which are not fully captured by asset-based damage estimates alone and place a disproportionate burden on vulnerable populations.

5. The country faces an annual risk of experiencing extreme meteorological droughts, with a Standardized Precipitation Evaporation Index (SPEI) of less than –2, indicating a 4 percent likelihood each year[10]. Between 2016 and 2018, over LKR 18 billion was spent on crop losses, water supply and drought relief. From 2011 to 2021, droughts affected over 9.6 million people, with 2014 and 2017 being the worst years[11]. These recurring, seasonal drought impacts undermine agricultural livelihoods, strain urban and rural water supplies, and disproportionately affect vulnerable populations, highlighting the limitations of reactive drought relief and the need for targeted, integrated interventions to strengthen drought resilience.

1 Climate Risk Country Profile, Sri Lanka 2020, The World Bank Group and the Asian Development Bank.

2 Country Climate and Development Report, Sri Lanka 2025, World Bank Group

3 Evidence of Climate Change Impacts in Sri Lanka, A review of Literature, 2024, Sri Lanka Journal of Economic Research.

4 Country Profile: Sri Lanka, 2023, Internal Displacement Monitoring Centre.

5 Housing_Report_-_CPH_2024_-_Final_compressed.pdf

6 First Biennial Transparency Report of Sri Lanka submitted to to the United Nations Framework Convention on Climate Change (UNFCCC).2024, Climate Change Secretariat, Ministry of Environment

7 Humanitarian Priority Plan – Cylone Ditwah 2025 https://srilanka.un.org/sites/default/files/2025-12/FINAL%20LKA_HumanitarianPrioritiesPlan_pub20251211.pdf

8 Post Disaster Needs Assessment, Cyclone Ditwah, Sri Lanka, March 2026.

9 Socioeconomic Resilience in Sri Lanka Natural Disaster Poverty and Wellbeing Impact Assessment, 2019, World Bank

10 Climate Risk Country Profile, 2021, The World Bank Group and the Asian Development Bank.

11 First Biennial Transparency Report of Sri Lanka submitted to the United Nations Framework Convention on Climate Change (UNFCCC).2024, Climate Change Secretariat, Ministry of Environment

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The Programme, Project area and target groups

6. The programme aims to address climate-related vulnerabilities threatening livelihoods, health, and ecosystems in Batticaloa District through an integrated, locally led adaptation approach. It combines Nature-based Solutions (NbS), hybrid adaptation measures, and resilience-building interventions to reduce flood and drought risks while strengthening ecosystem functions and local adaptive capacity. NbS will restore Thona drainage networks, wetlands, riparian buffers, and small water bodies, while hybrid measures will integrate ecosystem restoration with climate-resilient infrastructure to improve water management, flood resilience, and water security. Climate information services, hydrological monitoring, flood forecasting, early warning systems, and institutional capacity strengthening will enhance climate risk management and preparedness.

7. The project will empower local communities and institutions to identify priorities, co-design, implement, and monitor adaptation actions through inclusive governance mechanisms. By combining scientific knowledge with indigenous and traditional water management practices, the project will strengthen local decision-making, enhance resilience, and generate lessons for replication and scaling across other climate-vulnerable landscapes in Sri Lanka.

Climate vulnerabilities in Batticaloa District

8. The proposed project will be implemented in Batticaloa District, one of Sri Lanka's most climate-vulnerable coastal regions and an area where communities are already experiencing the growing impacts of climate change. Located in the eastern dry zone, the district is characterized by low-lying coastal landscapes, sensitive lagoon and watershed systems, and a high dependence on climate-sensitive livelihoods such as agriculture and fisheries. The dry zone of Sri Lanka receives about 900–1,750 mm of annual rainfall, concentrated during the Northeast Monsoon (October–January), with a prolonged dry season lasting several months. Agriculture, livelihoods, and water resources are highly dependent on seasonal rainfall and an extensive network of ancient irrigation tanks and canals. Additionally, the district is highly exposed to flood hazards as its rainfall is strongly influenced by low-pressure systems, depressions, and tropical cyclones that develop over the Bay of Bengal. These climate drivers result in frequent and severe floods, prolonged droughts, and other climate-related hazards that threaten livelihoods, infrastructure, agriculture, and ecosystem health, making local communities highly exposed to climate variability and extreme weather events

9. In recent years, Batticaloa has been experiencing more frequent and intense climate shocks, including prolonged droughts, sudden heavy rainfall, floods, and saltwater intrusion. These events have disrupted daily life, damaged ecosystems, and reduced agricultural productivity. According to the Multidimensional Vulnerability Index[12], about 61.9% of the district's population has limited adaptive capacity, highlighting the scale of exposure to climate-related disasters. Rainfall variability and unpredictable monsoon patterns have further intensified vulnerability.

10. The district's climate vulnerability is further compounded by the degradation of natural ecosystems, including wetlands, lagoons, river corridors, and natural drainage systems, which have reduced their capacity to regulate floods and droughts, store water, and provide essential ecosystem services. Consequently, local communities in the district have limited climate adaptive and resilient capacity and remain highly vulnerable to the increasing impacts of climate change.

Increase in extreme rainfall intensity and flood frequency

11. Batticaloa was one of the hardest hit districts by Cyclone Ditwah causing extensive damage to critical infrastructure including water systems, roads and bridges, resulting in significant challenges in accessing emergency services and supplies. With the onset of the North-East monsoon which started on 4 December 2025, the already saturated land had no absorption capacity. Batticaloa remains highly susceptible to recurring floods due to its low-lying topographical features, aggravated by poor land use practices13. The maximum one-day and five-day precipitations from 2010-2015 recorded an increase of 60% compared to the 30 years average). Being one of the largest rice production Districts of the country, rice production losses during the seasons of 2010–2011, 2012–2013, and 2014-2015 amount to 75.8%, 5.3%, and 16.6%, respectively. Conversely, the 2016–2017 season witnessed low rainfall, leading to a 41.3% loss due to drought conditions. These climate impacts on agriculture have severely contributed to ongoing livelihood vulnerability. Analysis of data and information from 2015 to 2025 of Batticaloa shows an increase in climate related flood impact on the daily lives of people (Table 1).

[12] undp_multidimensional_vulnerability_report_sri_lanka.pdf

[13] Investigation of River-Lagoon-Flood Nexus Under Climate Change: The Case of Batticaloa Lagoon and Connected River System, Sri Lanka https://www.pwri.go.jp/icharm/training/master/img/2024/synopses/11_Mauran.pdf?utm_source=copilot.com

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Table 1: Disaster Statistics

Year	2015	2017	2018	2019	2020	2021	2022	2023	2024	2025	2025**
People displaced	42431	3318	16136	21331	11281	15545	*	*	35558	5416	41,346
Houses damaged		6	90	104	10	20	*	*	192	24	843

Source: Disaster Management Center
*lower rainfall and increased drought conditions
** Source Disaster Management Centre Situation Report as at 17.12.2025

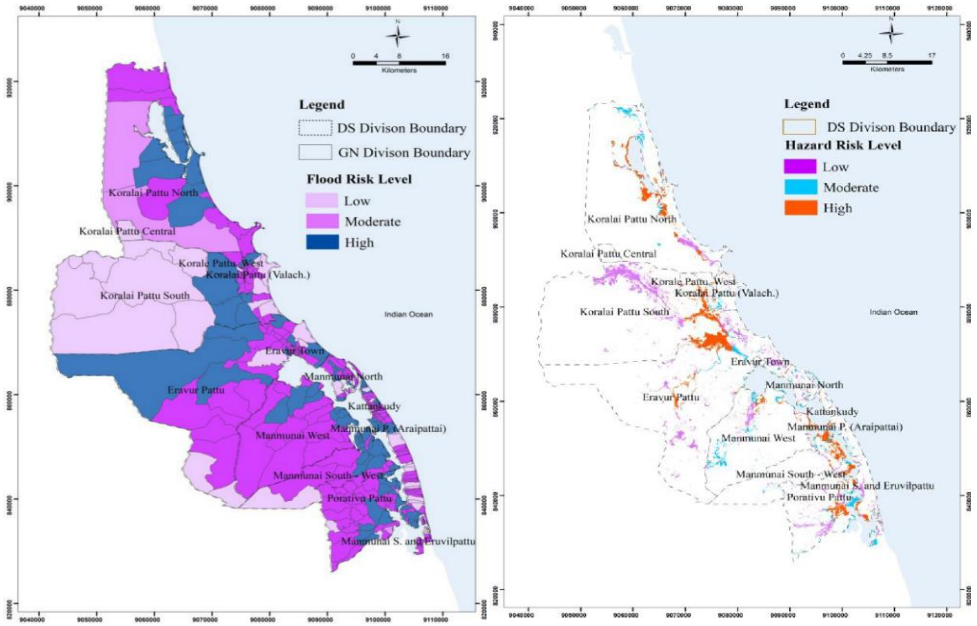


Figure 1- Flood Risk Level and Hazard Risk Level.

12. Recent research14 shows an upward trend in both the severity and frequency of extreme precipitation (fig.2). Moreover, the pattern of precipitation shows increased irregularity.

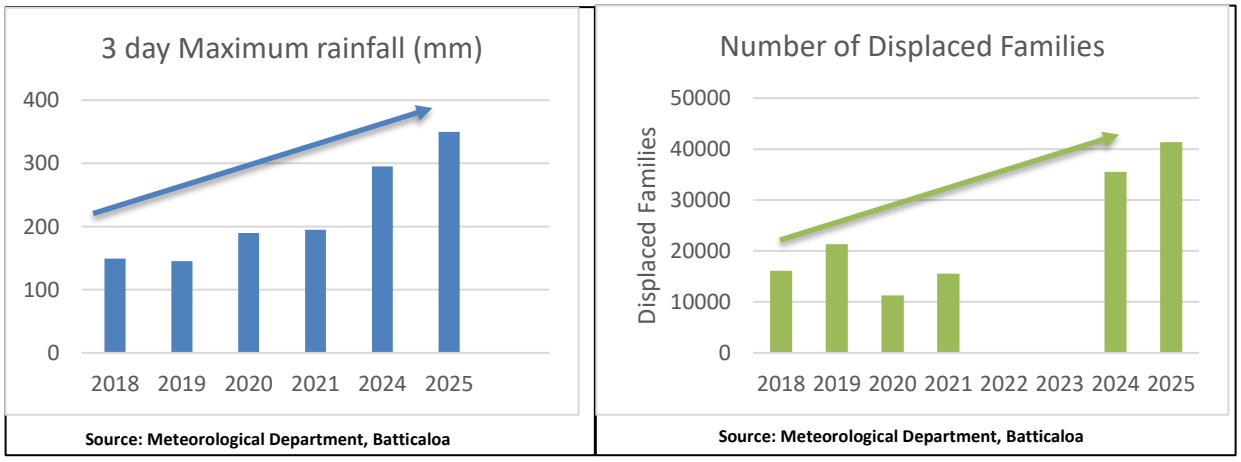


Figure 2- Pattern and Impact of extreme precipitation in Batticaloa. (Left side- 3 day rainfall event, right side- No. of persons displaced) Source: Regional Meteorological Office, Meteorological Department, Batticaloa

[14] Assessing the Impact of Past Flood on Rice Production in Batticaloa District, Sri Lanka" by Suthakaran Sundaralingam and Kenichi Matsui (2025).The map used Google Earth Engine and Global Surface Water (GSW) datasets. Flood extent is mapped using Sentinel-1 SAR and DEM data.

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Increase in frequency of prolonged drought conditions

13. Batticaloa also stands out as one of Sri Lanka's most drought vulnerable districts and prioritizing it for adaptive interventions is both evidence-based and strategically critical[15]. In Batticaloa district, ten (10) out of fourteen (14) Divisional Secretariat areas are prone to drought. Every year, around 32,000 families (or 100,000 individuals) are likely to be affected by drought or dry weather conditions in Batticaloa district[16]. As a result, thousands of families face recurring hardships, including water security, reduced agricultural productivity, disrupted livelihoods, debt cycles and heightened food insecurity.

14. Despite some existing initiatives, Batticaloa remains underserved in terms of targeted climate adaptation and resilience investments, creating a critical opportunity for the project to fill gaps and deliver scalable, community-led solutions particularly targeting disproportionately affected vulnerable groups such as female-headed households, elderly and the disabled. The district also presents an enabling environment for intervention, with LAs committed to driving transformative adaptation, supported by strong climate policy frameworks, and communities motivated to participate, creating favorable conditions for effective and sustainable implementation.

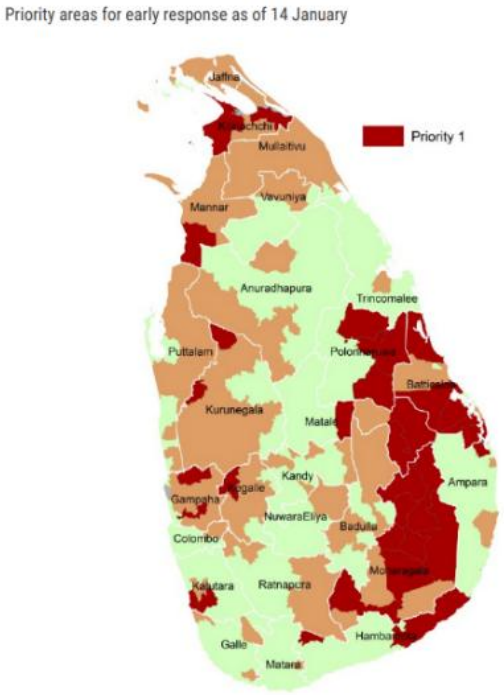


Figure 3- Priority Areas for Early Response. Source: WFP/GoSL, 2017

15. As per the National Disaster Relief Services Centre, 10,237 families were affected by droughts in the Batticaloa District in 2023. Batticaloa is recorded as the third highest drought affected district in the country. Batticaloa District Development Plan 2024-2028 identifies as a priority intervention the need to "reduce inundation and drought" and aims to contribute to the SDG 02 targets[17].

Vulnerability to Sea Level Rise and Saltwater Intrusion

16. Batticaloa District is highly vulnerable to sea level rise and saltwater intrusion due to its low-lying coastal plain and lagoon-based hydrology. The Batticaloa Lagoon (~168 km²) enables tidal water movement inland, increasing salinity in nearby soils, irrigation canals, and groundwater systems, especially during dry periods.

17. Studies show saltwater intrusion can affect land up to ~100 m from lagoon edges, reducing freshwater availability and paddy suitability in coastal zones[18] while disrupting aquaculture systems. At a broader scale, research indicates over 50% of coastal agricultural land in Sri Lanka is affected by salinity intrusion, including Batticaloa[19].

18. Batticaloa has about 70,000–90,000 ha of paddy land, of which an estimated 35,000–45,000 ha is vulnerable or already affected by salinity intrusion, particularly in lagoon-connected irrigation areas.

Ecosystem Degradation:

19. Batticaloa contains an interconnected network of major and minor irrigation tanks, village irrigation systems, wetlands, lagoons, and traditional Thona drainage channels that historically regulated water flows, reduced flood and drought impacts, supported agriculture and fisheries, and sustained ecosystem-based livelihoods. These systems have played an important role in maintaining water security and supporting climate-resilient livelihood activities, particularly for farming and fishing communities.

20. Over time, these interconnected natural and engineered systems have become increasingly degraded due to fragmented management, inadequate maintenance, sedimentation, encroachment, invasive plant species, and pollution. As a result, wetlands, irrigation tanks, and Thona networks have lost their capacity to regulate water flows, retain floodwater, store water during dry periods, recharge groundwater, and support

[15] National Drought Plan for Sri Lanka, 2020, Ministry of Environment, Sri Lanka

[16] Drought and Forest Fire Contingency Plan, 2021, Disaster Management Center, Sri Lanka.

[17] District Development Plan 2024-2028, District Secretariat, Batticaloa, Sri Lanka.

18 University of Peradeniya soil salinity study, SLJOL

19 ICAR – Journal of Soil Salinity & Water Quality

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biodiversity. The degradation of these systems has increased climate risks by intensifying flooding, reducing agricultural productivity, affecting fisheries resources, increasing water insecurity, and undermining the livelihoods and adaptive capacity of vulnerable communities.

21. The Disaster Management Centre (DMC), Batticaloa has mapped around 55 Thonas that form part of this wider flood-regulation network. Thonas are particularly important because they provide the natural hydrological connection between upstream catchments, irrigation systems, wetlands, Batticaloa Lagoon, and the sea. Maintaining this connectivity enables efficient drainage during intense rainfall, improves water circulation, reduces prolonged flooding, and supports aquatic habitats and fisheries.

22. Importantly, these naturally occurring and semi-engineered systems do not function in isolation; they are hydrologically interconnected. Therefore, a comprehensive hydrological study is required to assess connectivity, flow dynamics, and restoration needs to improve the functionality and resilience of the entire drainage -wetland network.

Key Root Causes of Climate Vulnerability

23. Batticaloa District experiences high climate vulnerability due to the combined effects of increasing hydro-meteorological hazards, degraded ecosystem functions, socioeconomic fragility, and institutional capacity limitations. These vulnerabilities are further intensified by poverty, post-conflict recovery challenges, and dependence on climate-sensitive livelihoods. The following interconnected root causes justify the urgent need for adaptation investments in the district.

24. Rapid settlement growth and obstruction of natural drainage pathways have increased flood exposure. Batticaloa experienced a nearly 60% increase in extreme rainfall events between 2010–2015 compared to historical averages, contributing to severe flooding and displacement[20].

25. Responsibilities for flood management, irrigation, disaster management, land-use planning, and ecosystem management are fragmented across multiple agencies, limiting integrated climate adaptation planning and long-term maintenance capacity[21].

26. In addition, communities in Batticaloa are still recovering from the long-term socio-economic impacts of nearly three decades of civil conflict, which weakened infrastructure, institutional systems, and local resilience capacities.

27. Existing forecasting systems lack localized hydrological monitoring and community-level early warning dissemination systems needed for flood-prone micro-watersheds in Batticaloa[22].

28. Female-headed households, indigenous communities, older persons, persons with disabilities, and conflict-affected populations face disproportionate climate risks due to poverty, limited livelihood diversification, and restricted access to resources and decision-making systems. Women's labor force participation in Batticaloa remains low at 28.7%, reducing economic resilience[23].

29. The climate risk profile of Batticaloa is shaped by interacting monsoon variability, sea level rise, and increasing hydro-meteorological extremes. Intensification of heavy rainfall during the Northeast Monsoon (NEM), combined with reduced drainage capacity, is already exceeding historical flood thresholds, consistent with Intergovernmental Panel on Climate Change (IPCC)24 projections of increased extreme precipitation across South Asia. This results in more frequent flooding, longer inundation, and growing impacts on agriculture, infrastructure, and settlements.

30. At the same time, greater rainfall variability and longer dry spells are creating alternating flood–drought conditions, particularly affecting tank irrigation and lagoon-based hydrological systems where water storage–release cycles are becoming less reliable. Sea level rise (0.44–0.77 m by 2100 under SSP scenarios,[25]) is further increasing saline intrusion into coastal aquifers and agricultural lands. When combined with ongoing ecosystem degradation and blockage of Thona drainage networks, these interacting hazards significantly weaken natural buffering systems and amplify overall climate vulnerability. The following table summarizes these key climate hazards, current impacts, and projected changes for Batticaloa.

20 Department of Meteorology Sri Lanka; Climate Risk Country Profile Sri Lanka, World Bank & ADB 2021
21 Sri Lanka National Adaptation Plan; Batticaloa District Development Plan 2024–2028
22 Disaster Management Centre Sri Lanka; WMO Community Early Warning Guidelines
23 UNDP Sri Lanka Vulnerability Assessment 2023; Department of Census and Statistics Sri Lanka
24 IPCC AR6 WG1, 2021; World Bank, 2021
25 IPCC AR6 WG1, 2021; World Bank, 2021

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Table 2: Climate Impact Summary Table for Batticaloa District

Climate Hazard	Current Impacts	Projected Future Impacts	Affected Systems	Proposed Adaptation Response
Northeast Monsoon (NEM) variability and extreme rainfall	Intense monsoon rainfall causes recurrent flooding, prolonged inundation, urban and rural livelihood disruption, crop losses, debt trap cycle, and damage to settlements and infrastructure. Regular destruction of paddy crops due to riverine and flash flooding (e.g., 75.8% from 2010–2011, 5.3% from 2012–2013, and 16.6% from 2014-2015).	IPCC AR6 (WG1, 2021) projects very likely increase in heavy precipitation intensity in South Asia. In Sri Lanka's Eastern Province, particularly Batticaloa's low-lying lagoon–floodplain system, this translates into more frequent high-intensity rainfall events, drainage exceedance, and increased frequency of floods.	Settlements, roads, drainage networks, agriculture, Thona-type canals	Restoration of drainage/Thona systems, flood forecasting, riparian buffer restoration, rehabilitation of natural waterways
Drought and rainfall variability	Recurrent flooding and drought affecting around 100,000 people annually, with significant rice yield losses and declining agricultural land productivity.	Projected increase in inter-annual rainfall variability and longer dry spells under RCP4.5–SSP2 scenarios. In Dry/Intermediate Eastern Sri Lanka, this increases evapotranspiration and reduces reliability of minor irrigation systems.	Agriculture, irrigation tanks, groundwater systems	Rehabilitation of minor/major tanks, watershed restoration, improved irrigation efficiency
Bay of Bengal depressions and tropical cyclones	Seasonal depressions and cyclones generate extreme rainfall, flooding, coastal inundation, and infrastructure damage.	Warmer sea surface temperatures are projected to increase extreme rainfall associated with tropical cyclones and depressions, although overall cyclone frequency remains uncertain. This is expected to increase flood severity and compound coastal hazards in Batticaloa.	Coastal settlements, lagoons, fisheries, transport infrastructure, agriculture	Multi-hazard early warning systems, climate-resilient infrastructure, ecosystem-based coastal protection, and community preparedness.
Sea level rise and saline intrusion	Saltwater intrusion affecting lagoon-adjacent agriculture and groundwater, lagoon ecosystems, particularly during prolonged dry periods. Salinity intrusion reported up to ~100 m inland from lagoon edges, impacting paddy fields and affecting approximately 35,000 ha of agricultural land	Sea level rise (projected at 0.44–0.77 m by 2100 under SSP2-4.5 to SSP5-8.5) is expected to intensify saline intrusion into coastal aquifers and lagoon systems, particularly in low-lying deltaic and lagoon-dominated landscapes such as Sri Lanka's Eastern Province, reducing freshwater availability, soil productivity, and irrigation reliability[26]	Lagoons, coastal agriculture, shallow aquifers, settlements	Saltwater intrusion barriers, mangrove restoration, ecosystem-based coastal buffers
Rising temperatures and heat stress	Increasing temperatures reduce labour productivity, increase crop water demand, and exacerbate water scarcity.	Mean temperatures across Sri Lanka are projected to continue increasing throughout the 21st century under all emissions scenarios, with mid-century (2040–2059) average temperature increases of approximately 1.0–1.8°C under intermediate emissions scenarios (RCP4.5/SSP2-4.5), accompanied by higher evapotranspiration, increased heat stress, and greater agricultural water demand.	Agriculture, livelihoods, public health, ecosystems	Nature-based cooling, ecosystem restoration, climate-smart agriculture, and improved climate information services.
Ecosystem Degradation	Wetland loss, mangrove and riparian degradation, and reduced hydrological connectivity across lagoon–tank–natural canal systems have resulted in substantial obstruction of natural drainage corridors in urban and peri-urban areas, with encroachment, infilling of minor canals, and blocked surface runoff pathways contributing to reduced flood conveyance efficiency and increased localized flooding frequency	Further decline in ecosystem functionality and natural buffering capacity, reducing resilience to all hydro-climatic hazards.	Wetlands, mangroves, lagoons, riparian zones, natural canals, biodiversity corridors	Ecosystem-based restoration of hydrological connectivity, wetland rehabilitation, mangrove restoration, integrated watershed management

[26] IPCC AR6 WG1, 2021; World Bank, 2021

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Avoidance of Maladaptation

31. To ensure the project does not create unintended negative impacts, all interventions will be designed in a way that is consistent with the natural functioning of Batticaloa's interconnected river–lagoon–drainage system. Planning will consider future climate changes, including more intense rainfall, frequent flooding, prolonged dry periods, and increasing saltwater intrusion. Beyond technical assessments, both the community and institutional capacity will be enhanced to ensure that interventions are locally led and do not negatively impact already vulnerable community members.

32. The project will avoid maladaptation, such as shifting flood risks from one area to another through poorly designed drainage works, or mismanaging canals in a way to avoid disrupting the natural flow between rivers, lagoons, wetlands, and drainage channels. It will also avoid infrastructure that is difficult to maintain or not suitable for local conditions.

33. Instead, the project will focus on ecosystem-based adaptation (EbA), restoring and strengthening natural systems such as wetlands, riparian buffers, and natural drainage corridors, combining them with appropriate small-scale engineering solutions where necessary. A Project Formulation Grant (PFG) will be used to carry out detailed technical and hydrological assessments to ensure that all interventions are properly designed based on site-specific conditions and community needs.

34. A safeguards and adaptive management system will be applied to avoid unintended impacts over time, including iterative design review, community validation, and technical oversight to ensure interventions remain climate-resilient and do not create new vulnerabilities.

35. Operation and maintenance responsibilities will be embedded within local authority systems and supported by VDMCs, farmer organizations, and community groups to ensure continuous management of restored systems and prevent maladaptive outcomes such as blockage, neglect, or system failure.

36. Continuous monitoring and feedback mechanisms will be established through local government and community coordination structures, supported by climate information systems and early warning feedback loops. This will allow early detection of unintended impacts and enable corrective actions, ensuring adaptive management throughout the project lifecycle.

Initial Gender Assessment

37. The project fully complies with the Gender Policy of the Adaptation Fund. Women and other vulnerable social groups were engaged in concept design from the outset through multilevel stakeholder consultations. The initial gender assessment incorporates both qualitative and quantitative data to establish gender roles, activities, needs, risks, and project-supported opportunities across the project landscape.

Gender Vulnerability in Batticaloa District

38. 52.04% of the population of Batticaloa District in 2024 are women[27], while 71.3% live in rural settlements. Moreover, the district records the highest number of WHH[28], a lasting impact of the 26-year civil war[29]. During extreme climate events, women are among the most vulnerable segments of society to be impacted[30].

39. During stakeholder consultations, women stated that they are excluded from disaster management, and that early warning messages are received by men who are often away from home on work. Therefore, there is a delay in receiving early warning alerts resulting in insufficient time for women to prepare for evacuation leaving families at further risk of death and injury.

40. Climate impacts affect women and men differently because of their different roles, access to resources and participation in decision-making. Men are predominantly engaged in commercial agriculture, fisheries, manual labour and other income-generating activities, while women undertake a greater share of unpaid domestic and caregiving work, household water collection, small-scale agriculture and home gardening. Men therefore face greater direct livelihood and occupational exposure, while women face additional risks related to caregiving, water security, delayed early warnings, evacuation and limited access to income and decision-making. The project addresses these differences through livelihood opportunities for both women and men and targeted measures to improve women's access to information, skills, project resources and decision-making.

[27] District Population 2024, Department of Census, Sri Lanka

[28] FemaleHeadedHouseholdsBySector,ProvinceAndDistrict2016.pdf (2019)

[29] FemaleHeadedHouseholdsBySector,ProvinceAndDistrict2016.pdf (2019)

[30] https://www.iwmi.org/blogs/climate-change-and-a-national-economic-crisis-are-overworking-rural-women/

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41. Batticaloa District has recorded 16.2% population below the official poverty line which is comparatively high in Sri Lanka[31]. Approximately 30% of the households rely on the agricultural industry as their main source of income in Batticaloa[32] and over 45.5% of the district's land is used for agriculture[33]. Poverty among agricultural rural settlements of Batticaloa severely impact women who are burdened with compromised decisions to meet the household's basic needs, including food[34]. Climate-related agricultural losses therefore have household-level implications, while women's lower participation in paid employment and greater responsibility for household care can limit their capacity to recover from shocks. Table 3 below summarizes the gender differentiated vulnerabilities, roles and project opportunities.

Table 3- Gender-differentiated climate vulnerability, roles and needs

Gender dimension	Evidence of differentiated roles, needs and risks	Project response / opportunity
Economic roles and livelihoods	Men have greater participation in paid agricultural, fisheries and manual labour activities with an employment rate of 71.8%, while women undertake substantial unpaid domestic and care work and have fewer opportunities for income diversification. The labor force participation for women is 28.7%[35]. This difference affects access to income, productive assets and recovery capacity following climate shocks.	Community contracting and NbS implementation will provide direct opportunities for women and women-led groups to participate in implementation, maintenance, monitoring and related livelihood activities. Men will also benefit through improved agricultural and fisheries productivity, reduced climate-related livelihood losses, and participation in restoration and maintenance activities.
Water security and household responsibilities	Women are primarily responsible for household water collection where piped water is unavailable. During droughts, women and girls may travel long distances, including at night, to collect water, creating personal safety risks and reducing opportunities for economic participation[36].	Restoration of Thona networks, irrigation tanks and saltwater-intrusion bund will improve water security, reduce prolonged inundation/salinity impacts and reduce the need for unsafe water collection journeys.
Early warning and disaster preparedness	Women are often excluded from disaster management. Early warnings may reach men who are away for work, through mobile alerts, while women responsible for children, older persons and household preparedness have delayed access to alerts.	Establish 30 women-led early-warning/disaster-response groups, link women's groups directly to the real-time climate information system and strengthen their role within VDMCs. Multiple dissemination channels and community focal points will ensure that early warnings reach women and men directly and in sufficient time for preparedness and evacuation, particularly where men are away from home for work and women are responsible for children, older persons and household preparedness.
Evacuation and safety	Women carry a disproportionate caregiving burden during disasters. In Muruthanai GN Division, recurrent flooding associated with the Pondukalchani causeway inundates over 10,500 acres of paddy land and forces approximately 550 families, many from indigenous backgrounds, to relocate to evacuation centers for periods of up to 30 days	Improved drainage, culverts/bridges, early warning and community preparedness will reduce exposure and improve timely evacuation. Indigenous women and other vulnerable groups will be prioritized in consultations, training and community response mechanisms.
Participation and decision-making	Women reported exclusion from disaster management and community-level DRR decision-making. Existing participation is reported at below 30% in many community governance systems.	The project will maintain at least 40% female participation in implementation and co-management of NbS/DRR activities, strengthen women-led groups, and work towards ≥50% women's participation in local DRR and planning structures.
Access to project resources and opportunities	Women, particularly WHHs, rural women and indigenous women, face constraints in access to productive resources, livelihood diversification, technical support and decision-making.	Direct community agreements and contracting with women-led groups will provide access to project resources and financial benefits. Targeted NbS/co-management training will prioritize women, WHHs, youth and indigenous groups.

31 Household Income and Expenditure Survey, 2019, Department of Statistics, Sri Lanka.

32 Labour Force Survey Annual Bulletin-2021, Department of Census and Statistics, Sri Lanka

33 Statistical Information – 2021, Ministry of Agriculture, Eastern Provincial Council, Sri Lanka

34 There is no day that we don't have work or worry … We have to do the housework, and when there is no more money, we (the women) only have to think about what to do … It is not their worry (for the men) … Only we go into the kitchen so only we know what is there or not there … We need to find a way to manage right?
FGD participant in Batticaloa
https://www.iwmi.org/blogs/climate-change-and-a-national-economic-crisis-are-overworking-rural-women/

35 10.1.pdf

36 Climate Vulnerability Risk Assessment in Eastern Province and Guidance for Capacity Development of Local Governments on Assessing Climate Change Vulnerability, 2023, UNDP Sri Lanka.

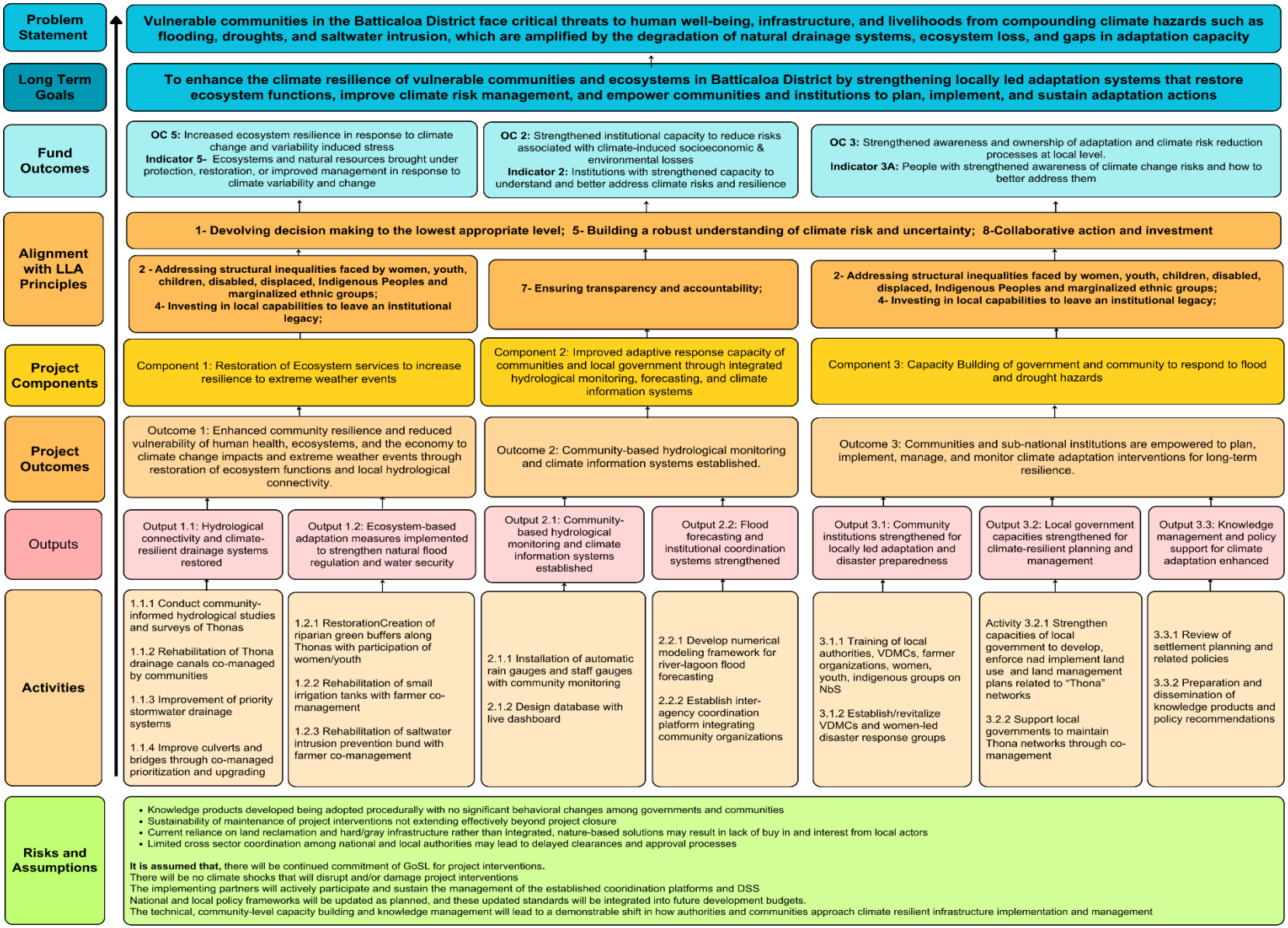
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42. The project will therefore move beyond treating women as vulnerable beneficiaries and position them as active adaptation actors and decision-makers. Women and women-led groups will receive direct opportunities to participate in community contracting, ecosystem restoration, early warning, monitoring and co-management. The project will target at least 40% female participation and 30% youth participation in implementation and co-management, establish 30 women-led disaster-response/early-warning groups, and provide targeted capacity development, with priority given to women, WHHs, indigenous groups and youth. Sex-disaggregated participation and beneficiary data will be collected across training, livelihood, early-warning, restoration and governance activities to assess whether women and men are accessing project benefits equitably.

43. The gender analysis demonstrates that climate vulnerability in Batticaloa is not determined by exposure to hazards alone, but also by gendered roles, unequal access to income and decision-making, responsibility for water and care, and differentiated safety and evacuation risks. The project's gender-responsive design therefore combines physical adaptation measures with direct participation, access to project resources, climate information, skills development and leadership opportunities for women, while ensuring that indigenous and other vulnerable groups are included through culturally appropriate and locally led mechanisms. Addressing gender inequalities and actively engaging women in disaster preparedness and climate adaptation is essential to reduce their vulnerability and strengthen the resilience of households and communities in Batticaloa. By enabling women to co-lead planning and implementation, access resources, and make decisions, the project will transform how communities prepare for and respond to climate risks, ensuring locally owned and sustainable solutions.

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Theory of Change



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44. The project's **goal** is to contribute to enhanced climate resilience of vulnerable communities, ecosystems and local institutions in Batticaloa District. To achieve this, the project will implement a set of activities focused on combining ecosystem and hydrological restoration, climate-resilient NbS/hybrid infrastructure, integrated hydrological monitoring and forecasting, and strengthened community and institutional capacity. These **activities** will restore Thona drainage networks, irrigation tanks, saltwater intrusion bunds and riparian buffers, build economic resilience; establish community-based climate information, monitoring and flood forecasting systems; and strengthen local governments, VDMCs, women-led groups and other community institutions to plan, implement, monitor and maintain adaptation measures thereby embedding ownership, accountability and transparency and will draw on technical expertise, climate and hydrological information, and local and indigenous knowledge.

45. These inputs and activities will generate outputs that are expected to increase hydrological connectivity through improved ecosystem services and water security, EbA measures, strengthened institutional use of climate information for planning and early response, and increase community capacity to define, prioritize, implement and monitor locally led adaptation actions. The project outcomes envisioned will reduce vulnerability to impacts of extreme weather events, community based hydrological monitoring and climate information systems and empowerment and capacitation of communities and national and sub-national institutions for long term resilience.

46. These **outputs and outcomes** will contribute directly to AF Outcomes, 5, 2 and 3. Outcome 5- Increased ecosystem resilience in response to climate change and variability-induced stress; through restoration through restoration and co-management of ecosystem and hydrological assets, Outcome 2- Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses through strengthened capacity of institutions to understand and better address climate risks and resilience, through operational monitoring, climate information, forecasting and coordination systems for climate risk planning and response; and Outcome 3- Strengthened awareness and ownership of adaptation and climate risk reduction processes at the local level, through strengthened community institutions, local government capacities, knowledge products and co-management arrangements.

47. The project will apply **LLA principles** throughout these pathways by devolving adaptation decision-making to the lowest appropriate level, using local and Indigenous knowledge, addressing barriers faced by women, youth, indigenous peoples and other vulnerable groups, investing in local capabilities, and establishing transparent community–government co-management and collaborative action. These approaches will strengthen local ownership, accountability and sustainability while ensuring that adaptation investments respond to locally identified risks and priorities.

48. Together, these pathways will strengthen the capacity of communities and institutions to anticipate, plan for and respond to floods, droughts and saltwater intrusion, while restored ecosystems and hydrological systems reduce exposure and strengthen water and livelihood security. Over time, this will contribute to reduced climate-related losses, enhanced ecosystem and community resilience, and inclusive climate-resilient development across Batticaloa District. Key assumptions are continued institutional and community commitment, effective cross-sectoral coordination, and sustained maintenance and use of project systems and investments; key risks include climate shocks, inadequate post-project maintenance, limited uptake of knowledge products and institutional coordination or approval delays.

Project / Programme Objectives:

49. The overall objective of the project is to enhance the climate resilience of vulnerable communities and ecosystems in Batticaloa District by strengthening locally led adaptation systems that restore ecosystem functions, improve climate risk management, and empower communities and institutions to plan, implement, and sustain adaptation actions. The project will address increasing risks from floods, droughts, and saline intrusion by restoring ecosystem functions, improving hydrological connectivity, strengthening climate risk information and early warning systems, and enabling communities and local institutions to collaboratively plan, implement, and sustain adaptation actions.

50. **The project will achieve this through three interlinked outcomes:**

- 1. Enhanced community resilience and reduced vulnerability of human health, ecosystems, and the economy to climate change impacts and extreme weather events through restoration of ecosystem functions and local hydrological connectivity.
- 2. Improved adaptive response capacity of communities and local government through integrated hydrological monitoring, forecasting, and climate information systems.
- 3. Communities and sub-national institutions are empowered to plan, implement, manage, and monitor climate adaptation interventions for long-term resilience.

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Project / Programme Components and Financing[37]:

Table 4 Project Components and Financing

Project/ Programme Components	Expected Outcomes	Expected Concrete Outputs	Amount (US$)
Component 1: Restoration of Ecosystem services to increase resilience to extreme weather events	1. Enhanced community resilience and reduced vulnerability of human health, ecosystems, and the economy to climate change impacts and extreme weather events through restoration of ecosystem functions and local hydrological connectivity.	1.1 Hydrological connectivity and climate-resilient drainage systems restored (30 Thona drainage systems, 3 km of stormwater drainage, and 5 priority culverts/bridges rehabilitated, directly benefitting 100,000 people (51% women) across five DS Divisions)	**2,700,000**
		1.2 Ecosystem-based adaptation measures implemented to strengthen natural flood regulation and water security. (Four riparian green buffers, 10 irrigation tanks, and 10 km of saltwater intrusion prevention bunds restored and co-managed by communities, benefiting approximately 2,500 farming households (~10,000 people), including at least 40% women and 30% youth participation in implementation and maintenance)	**900,000**
Component 2: Reduced Exposure to Flood Hazards and building technical resources	2.Improved adaptive response capacity of communities and local government through integrated hydrological monitoring, forecasting, and climate information systems	2.1 Community-based hydrological monitoring and climate information systems established. (10 automatic rain gauges, staff gauges, and a real-time climate information dashboard, providing climate information services to approximately 100,000 direct beneficiaries and supporting disaster risk management across the wider project area	**170,000**
		2.2 A river–lagoon flood forecasting model and multi-agency coordination platform established and operational	**175,507**
Component 3: Capacity Building of government and community to respond to flood and drought hazards	3.Communities and sub-national institutions are empowered to plan, implement, and monitor adaptation interventions for long-term resilience.	3.1 Community institutions strengthened for locally led adaptation and disaster preparedness. (30 women-led disaster response groups strengthened, benefiting at least 900 people (50% women and 30% youth participation)	**135,000**
		3.2 Climate-responsive planning and co-management systems established in Batticaloa Municipal Council and two Urban Councils, integrating Thona network management into local planning, operation, and maintenance systems (~180 local government officials and community representatives).	**45,000**
		3.3 One policy review, three knowledge products, and practical guidance on climate-resilient settlement planning prepared and disseminated to support replication and integration into district and local government planning processes (~150 government planners and technical officers).	**45,000**
6. Project/Programme Execution cost			**437,788**
7. Total Project/Programme Cost			**4,608,295**
8. Project/Programme Cycle Management Fee charged by the Implementing Entity (if applicable)			**391,705**
Amount of Financing Requested			**5,000,000**

[37] IE and EE fees calculator: https://www.adaptation-fund.org/document/ie-and-ee-fees-calculator/

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Projected Calendar:

Table 5 Tentative Project Calendar

Milestones	Expected Dates
Start of Project/Programme Implementation	01.06.2027
Project/Programme Closing	30.06.2030
Project Completion Report (within six (6) months project completion)	31.12.2030
Terminal Evaluation (within nine (9) months after project completion	30.09.2031

PART II: PROJECT / PROGRAMME JUSTIFICATION

A. Project / Programme Components

51. The proposed project, "Batticaloa Climate Smart Adaptation and Resilience through Ecosystems (B-CARE)", aims to strengthen climate resilience in Batticaloa District, Sri Lanka, through integrated adaptation interventions that combine ecosystem restoration, NbS, hybrid hydrological infrastructure improvements, and climate information systems.

COMPONENT 1: Restoration of Ecosystem Services to Increase Resilience to Extreme Weather Events
Outcome 1: Enhanced community resilience and reduced vulnerability of human health, ecosystems, and the economy to climate change impacts and extreme weather events through restoration of ecosystem functions and local hydrological connectivity.

52. This component forms the foundation of the project by restoring ecosystem functions and reconnecting degraded local hydrological systems that regulate flood flows, retain water during droughts, and reduce saline intrusion. The project adopts an integrated adaptation approach combining ecosystem-based, nature-based, and hybrid interventions, recognizing that climate resilience in the project area depends on restoring both natural ecosystems and climate-resilient water management infrastructure.

53. Building on community consultations undertaken during project preparation, hydrological studies, GIS analysis, and participatory planning will refine the prioritization of interventions to ensure that investments respond to climate risks while maximizing ecosystem functionality and local hydrological connectivity. Rather than implementing isolated infrastructure rehabilitation, interventions will restore the functional relationship between Thona drainage systems, wetlands, irrigation tanks, stormwater drainage, culverts, bridges, and lagoon-edge protection systems so they function together as an integrated adaptation system.

Output 1.1 Hydrological connectivity and climate-resilient drainage systems restored:

54. This output focuses on restoring degraded ecosystem functions and improving local hydrological connectivity through ecosystem-based and hybrid interventions. Over time, the natural connectivity between Thona drainage networks, wetlands, irrigation tanks, stormwater systems and lagoon environments has been disrupted due to sedimentation, inadequate maintenance, encroachment and fragmented management. This has reduced the capacity of these interconnected systems to regulate water flows, retain water during dry periods, drain excess water during extreme rainfall events, and limit saline intrusion. These interventions are informed by community consultations and technical hydrological assessments and are designed to address flood, drought, and saline intrusion risks in an integrated manner. The restored systems form the physical foundation for climate information services, forecasting, and early warning systems developed under Component 2, while also enabling long-term sustainability through institutional arrangements strengthened under Component 3.

Activity 1.1.1: Conduct community-informed hydrological studies, GIS analysis and participatory mapping-

55. Co-led by Irrigation Department and LAs with technical support from UN-Habitat. Communities, CBOs, and farmer groups actively participate in data collection, participatory mapping, and validation of flood hotspots. While technical agencies lead analysis, community inputs directly shape prioritization of investments. Community representatives also participate in validation workshops that inform allocation of project resources for subsequent interventions.

Activity 1.1.2: Rehabilitation of Thona drainage canals co-managed by communities.

56. Implementation will follow a co-management and community contracting model, where LAs receive

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project funds and implement major works, while Community-Based Organizations are contracted for selected site-level activities such as vegetation clearance, minor canal rehabilitation, turfing, and routine maintenance. Community groups will identify priority canal sections, co-define design options, and oversee implementation quality. This dual delivery mechanism ensures both institutional oversight and direct community access to project financing and employment-based implementation roles. In addition, community groups will take responsibility for routine upkeep of natural drainage channels, including prevention of dumping, clearing of blockages, and maintenance of flow paths to ensure uninterrupted drainage connectivity. A community-based monitoring system will be established to regularly track canal conditions and trigger timely maintenance actions, strengthening local ownership and sustaining flood mitigation benefits over time. Figure 4 provides the existing Thona system in the Batticaloa District and Figure 5 shows the current conditions of a degraded Thona in one of the projects identified areas.



Figure 4- Existing Thona. Source- UN-Habitat

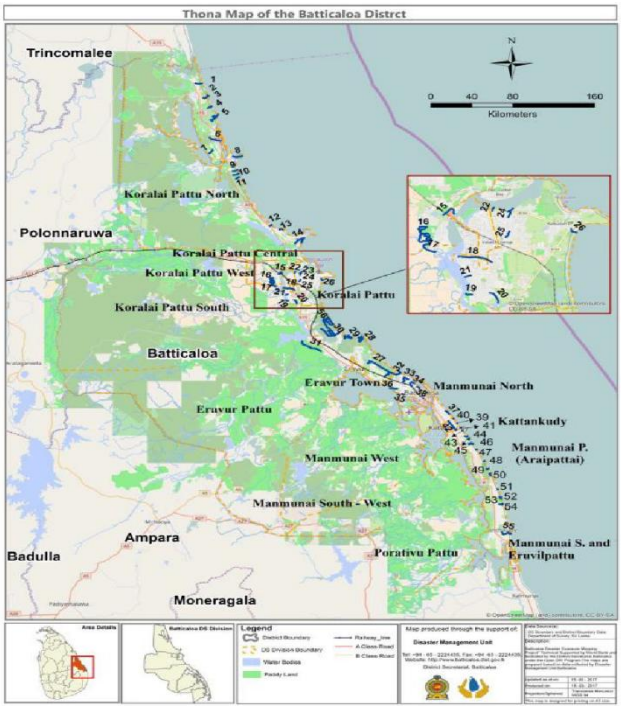


Figure 5- Thona drainage system map

Table 6 Field Visits

Image	Explanation
 *Figure 6- UN Habitat Filed visit 2025/06/18)*	Identified activities during field assessments by the UN-Habitat technical team, in consultation with local stakeholders, include issues of siltation, partial blockage, and sections requiring urgent desilting and rehabilitation

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 *Figure 7- Thona in Thiraimadu covered by invasive plant speicies (Data source: UN Habitat Filed visit 2025/06/18)*	Identified activities during field assessments by the UN-Habitat technical team, in consultation with local stakeholders, include issues of siltation, invasive vegetation, partial blockage, and sections requiring urgent desilting and rehabilitation.

Activity 1.1.3 Improve priority stormwater drainage systems:

57. Implementation will be led by LAs with community consultation and validation of priority flood locations. Selected community groups will be engaged through community contracts for supporting works such as clearing drainage pathways, minor upgrades, connecting household stormwater to main drainage systems, and routine maintenance activities. This approach ensures partial direct financial engagement of local groups, while major infrastructure upgrades remain under municipal execution.

Activity 1.1.4 Improve culverts and bridges through co-managed prioritization and upgrading:

58. Many existing culverts and bridges within the Batticaloa watershed are undersized, blocked, or poorly connected to natural drainage pathways due to sedimentation, encroachment, and changing land-use patterns. These constraints disrupt natural water flow, increase localized flooding, damage transport access, and reduce the hydrological connectivity between wetlands, drainage canals, and the lagoon system. Therefore, targeted upgrading of culverts and bridges is required to restore efficient flood conveyance, improve drainage connectivity, and reduce climate-induced flood risks for vulnerable communities. Implementation will be led by LAs with technical oversight. Community groups will validate priority locations and participate in monitoring. Where feasible, community-based contracts will support supporting works such as approach road improvements, clearing of drainage obstructions, and post-construction maintenance support. Prioritization of interventions will be guided through hydrological assessments, flood forecasting outputs under Component 2.



Figure 8- Site inspection to a local culvert. Source: UN-Habitat field visits

Output 1.2 Ecosystem-based adaptation measures implemented to strengthen natural flood regulation and water security.

59. This output focuses on protecting and enhancing adaptive capacities of existing hydrological networks against floods, droughts and salinity intrusion. While EbA activities under this output will contribute to restoring ecosystems, increase water security and flood regulation, will also support livelihood opportunities for women and youth. The interventions will be implemented through community agreements, and community-based monitoring and co-management systems will be established to ensure sustainability.

Activity 1.2.1: Restoration of mangroves and creation of riparian green buffers along the lagoon, tanks and Thonas:

60. Implementation will be through community contracting arrangements, led by women and youth groups supported by CBOs. These groups will receive direct project financing to undertake mangrove nursery

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development, restoration, and planting and maintenance of riparian buffers using native species. LAs provide technical supervision and validation. The species for green canopies will be selected in consultation with the provincial Agriculture Department and Forest Department during full proposal development stage to ensure no invasive and/dangerous species are introduced. The locations for mangrove restorations will also be identified in consultation with the Forest Department, and the Mangrove Expert Committee to ensure that soil conditions are suitable for reforestation. Communities will jointly decide buffer locations and manage long-term maintenance, ensuring both ecological ownership and direct financial participation.

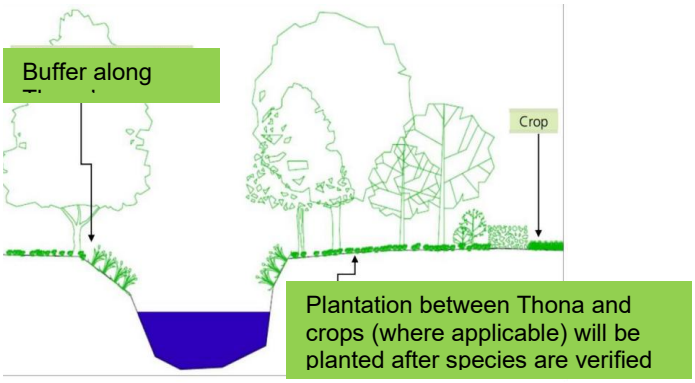


Figure 9- Conceptual Design

Activity 1.2.2 Rehabilitation of small irrigation tanks with farmer co-management:

61. The project identified, through vulnerability assessments and stakeholder consultations, the rehabilitation of 10 small and medium irrigation tanks as a priority intervention to restore ecosystem services, reduce flood risk, and improve water retention and storage, thereby enhancing community resilience. Farmer Organizations will directly receive project funds through community contracts to implement rehabilitation works, including desilting, bund strengthening, canal repairs, and turfing. The Irrigation Department and the Department of Agrarian Development will provide technical design approval, supervise works, and directly implement critical hydraulic and water regulation structures, including spillways, sluices, and other control infrastructure.



Figure 10: List of Tanks and Details

Activity 1.2.3 Rehabilitation of saltwater intrusion prevention bund with farmer co-management:

62. The proposed repairs and restoration of a saltwater intrusion prevention earth bund to reduce effects of rising lagoon water levels has been identified through extensive consultations with technical government agencies such as the Coast Conservation and Resource Management Department, Batticaloa District Government Agent, Irrigation Department and also communities. These stakeholders confirmed the proposed activities are in line with national plans and priority actions. The proposed repairs and restoration of a saltwater intrusion prevention earth bund to reduce effects of rising lagoon water levels has been identified through extensive consultations with technical government agencies such as the Coast Conservation and Resource Management Department, Batticaloa District Government Agent, Irrigation Department and

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also communities. These stakeholders confirmed the proposed activities are in line with national plans and priority actions. The scope of this intervention includes repairs and restoration of a 10 km saltwater intrusion prevention bund including drainage structures bordering the Batticaloa lagoon Kaluthavalai, Paluhamam, Mahaloor, Kumalamunai, and Thuraineevanai GN Divisions to reduce impact of rising lagoon water levels. Implementation will be carried through Farmer Organization–led community contracting, where farmer groups receive direct funding to carry out earth bund rehabilitation, strengthening, and eco-stabilization works. Technical agencies provide design and safety oversight. Communities identify critical bund sections and manage implementation and maintenance. This approach ensures direct financial transfer to local actors for nature-based and hybrid adaptation works, strengthening long-term stewardship of coastal protection systems.

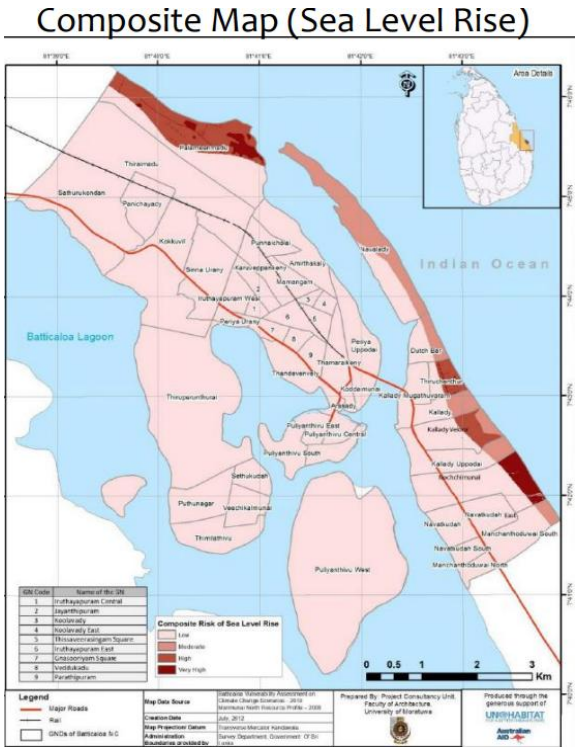


Figure 11- Composite map of Sea Level Rise. Source: University of Moratuwa

Table 7- Summary of Activities, Beneficiaries and Implementation Approach

Activity	Target area/Beneficiaries	Implementation Approach
Activity 1.1.1 Conduct community-informed hydrological studies and surveys of Thonas	This will target approximately 220,000 people in urban, peri-urban, and surrounding interface areas across five Divisional Secretariat (DS) Divisions that are hydrologically connected through the four lagoons, Thona drainage networks, and associated water bodies. This represents the overall indirect beneficiary population benefiting from improved climate risk planning and flood management.	Led by UN-Habitat, the Irrigation Department and LAs, with active participation of Community-Based Organizations (CBOs), farmer organizations, women's groups and local communities. Hydrological assessments, GIS analysis and participatory mapping will combine scientific evidence with local and indigenous knowledge to jointly identify, validate and prioritize interventions. Community representatives will participate in validating priority Thonas, drainage bottlenecks and restoration sites through local planning workshops before final technical approval.
Activity 1.1.2 Rehabilitation of 30 nos. Thona drainage canals co-managed by communities	Flood-prone communities in selected GN Divisions of Koralai Pattu North (Vaharai), Koralai Pattu South (Kiran), Eravur Town, Manmunai North, and Kattankudy DS Divisions will be supported through the project, contributing to flood-risk reduction for approximately 80,000 direct beneficiaries within the overall project target population. (contributes to the overall 100,000 direct beneficiaries; not additional).	Implemented by LAs and the Irrigation Department through community co-management arrangements. Community organizations will participate in confirming priority Thonas, implementation scheduling, monitoring construction quality, and routine maintenance. Community feedback will be incorporated into implementation through regular review meetings.
Activity 1.1.3	Urban communities in the Eravur Town,	Implemented by LAs with technical support from relevant agencies.

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Improvement of 3km priority stormwater drainage systems	Manmunai North, and Kattankudy DS Divisions are affected by inland flooding, with approximately 20,000 people from selected GN Divisions expected to benefit from the project (subset of the 100,000 direct beneficiaries; overlaps with other drainage interventions).	Interventions will be guided by community consultations, field assessments, and a review of existing planning documents (including the 2012 master plan) to identify outdated drainage assumptions and current flood risks. Priority actions will be jointly validated with communities before final design. During implementation, community monitoring groups will provide feedback to support adaptive adjustments and ensure proper functioning of drainage and ecosystem systems. To ensure long-term sustainability, Local Authorities (MC and UC) will integrate routine operation and maintenance of the upgraded drainage systems into their annual maintenance programmes, while community monitoring groups will continue reporting blockages and maintenance needs through established coordination mechanisms.
Activity 1.1.4 Improve culverts and bridges through co-managed prioritization and upgrading in 5 locations	Communities in Koralai Pattu South (Kiran) and Manmunai SouthWest DS Divisions, with approximately 50,000 people (Subset of Output 1.1 direct beneficiaries, overlapping coverage within the overall beneficiary estimate) from selected GN Divisions expected to benefit. These areas face disrupted drainage and increased localized flooding within the Batticaloa watershed. Reduces economic losses (affects 14 GN divisions, and 49,000 acres of paddy), and facilitates access to resources/services	Implemented by LAs using hydrological assessment results and community consultations. Community representatives will assist in prioritizing crossing locations based on local flood experience, while implementation will be coordinated with ongoing restoration of drainage systems under Component 1. Following construction, Local Authorities (MC and UC) will incorporate inspection and maintenance of the upgraded structures into their routine asset management programmes, supported by community reporting and periodic monitoring to maintain drainage connectivity and functionality.
Activity 1.2.1 Restoration of mangroves and creation of riparian green buffers along the lagoon, tanks and Thonas with participation of women/youth in 4 locations	Women, youth and community organizations (15 CBOs). Target 10 ha- Restoration of mangroves and creation of riparian green buffers	Implemented jointly by LAs, Forest Department and CBOs. Communities, particularly women and youth groups, will be supported to establish nurseries, select suitable native species, participate in planting and maintenance, and monitor vegetation survival through community stewardship arrangements. A business model will be adopted to ensure continued engagement and economic resilience beyond the implementation period.
1.2.2 Rehabilitation of 10 small irrigation tanks with farmer co-management	Farming communities (10 Farmer Organizations). This intervention will benefit over 3,000 acres of agricultural land and directly support more than 500 farming households (included within the overall direct beneficiary estimate).	Implemented by the Irrigation Department together with Farmer Organizations. Farmers will participate in confirming priority tanks, implementation planning, supervision, operation and long-term maintenance through existing farmer management committees. The project will strengthen the technical and organizational capacity of Farmer Organizations to undertake routine operation and maintenance, while the Irrigation Department will provide periodic technical oversight to ensure the long-term functionality and climate resilience of the rehabilitated tanks.
Activity 1.2.3 Rehabilitation of 10km saltwater intrusion prevention bund with farmer co-management	Coastal communities in Manmunai Southwest DS Division (Lagoon Interface Zone) This intervention will benefit over 5000 acres of agricultural land and directly support more than 700 farming households. (included within the overall direct beneficiary estimate).	Implemented by the Irrigation Department and LAs with Farmer Organizations. Communities will participate in identifying priority bund sections, monitoring implementation, and supporting long-term maintenance through community-government co-management arrangements.

COMPONENT 2: Reduced Exposure to Flood Hazards and Building Technical Resources

Outcome 2: Improved adaptive response capacity of communities and local government through integrated hydrological monitoring, forecasting, and climate information systems.

63. Building upon the restored ecosystem functions and local hydrological connectivity established under Component 1, this component strengthens the technical systems required to anticipate and respond to climate-induced flood and drought risks. Rather than establishing parallel systems, the project enhances existing national forecasting systems by integrating community-supported rainfall monitoring, hydrological observations, and localized climate information into decision-making processes.

64. Hydrological modelling will analyse how restored drainage systems, wetlands, irrigation tanks, and lagoon systems function together, enabling more accurate flood forecasting and improved understanding of

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climate risks. Early warning information will be disseminated through locally appropriate communication mechanisms, ensuring that communities receive timely and actionable information.

Output 2.1 Community-based hydrological monitoring and climate information systems established.

65. This output strengthens the technical foundation for climate risk anticipation by establishing community-based hydrological monitoring integrated with national systems. Rainfall and water level monitoring stations will be installed in priority catchments, building on hydrological conditions restored under Component 1. A real-time climate data platform and Decision Support System (DSS), hosted within government systems under DMC leadership will provide LAs and community focal persons with direct access to information for planning and preparedness.

Activity 2.1.1 Installation of 10 nos. automatic rain gauges and staff gauges with community monitoring:

66. Rainfall and water level monitoring stations including additional automated rain gauges and radar type water-level gauges will be installed in priority lagoon and river catchments identified through hydrological assessment, flood history mapping, and participatory community validation. The proposed monitoring network will complement the existing RiverNet[38] and national meteorological and hydrological monitoring systems, rather than duplicate existing infrastructure. Additional gauges will be located where significant spatial or temporal monitoring gaps are identified, particularly in upstream of major catchments, which receives significant amount of rainfall yet, presently ungauged, smaller and interconnected catchments, Thona drainage systems, coastal and urban cities, wetlands and lagoon areas that are not adequately represented by the existing network. The number and locations of additional gauges will be determined based on existing station coverage, catchment characteristics, rainfall variability, hydrological connectivity, flood risk and the requirements of hydrological assessment and early warning, taking into account relevant World Meteorological Organization (WMO) guidelines and in consultation with responsible national agencies. The enhanced monitoring network will provide improved ground-level observations to support localized flood assessment, hydrological modelling, early warning and community preparedness.

Activity 2.1.2: Design one database with live dashboard, accessible to government and community representatives.

67. A real-time climate data platform and DSS will be established and hosted within national and sub-national government systems, led by DMC in coordination with Irrigation Department and LAs. The system will integrate community-generated monitoring data with national meteorological and hydrological datasets to improve forecasting accuracy and decision relevance at district and local levels. Local Authority officers and designated community focal persons will access system outputs for planning, emergency preparedness, and response coordination. To address the identified vulnerability of women receiving delayed early warning information, the system will support timely dissemination of alerts through Local Authorities, VDMCs, and women-led community groups, ensuring women have equitable and timely access to climate and disaster information for preparedness and response. The DSS will function as a shared information backbone linking national forecasting systems with local decision-making processes, enabling transparent, evidence-based climate risk management across institutions.

Output 2.2 A river–lagoon flood forecasting model and multi-agency coordination platform established and operational

68. This output translates monitoring data into actionable flood forecasts and coordinated institutional response. An inter-agency coordination platform led by the District Secretariat will bring together DMC, technical departments, LAs, and community representatives to enable coordinated decision-making on flood response and drought management, linking national forecasting systems with local governance and early warning dissemination.

Activity 2.2.1 Develop one numerical modeling framework for river-lagoon flood forecasting:

69. This activity will develop a hydrological modelling framework to improve flood forecasting and monitoring in the river–lagoon system. The current lack of timely and reliable climate and hydrological information limits the ability of LAs and communities to anticipate floods and droughts. The modelling framework will strengthen decision-making by providing early and more accurate information on flood risks, helping communities and LAs prepare in advance, reduce losses, and adjust livelihoods and water management practices. The model will integrate available technical data with community observations and historical local knowledge, ensuring that local experiences of past floods and droughts are reflected in the analysis. Community members will also support validation of model outputs and help share early warning information at the local level. The modelling will identify

38 https://rivernet.lk/

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flood and drought hotspot areas, drainage constraints, and vulnerable low-lying zones, as well as assess how changes in drainage systems and surface water flows affect local water retention and flood behavior. This evidence base will guide the prioritization and sequencing of interventions, ensuring that investments under the project are directed to the most vulnerable and climate-affected locations in the project area.

Activity 2.2.2 Establish inter-agency coordination platform for flood and drought management integrating community organizations

70. An inter-agency coordination platform will be established at district level under the leadership of the District Secretariat, with participation from DMC, Irrigation Department, Meteorological Department, LAs, and community representatives including VDMCs and women-led early warning groups. The platform will enable coordinated decision-making on flood response, drought management, water regulation, and emergency preparedness based on real-time forecasts and community observations. Community representatives will contribute field-level information and feedback, ensuring that operational decisions reflect local conditions and vulnerabilities.

71. The mechanism strengthens integration between national forecasting systems and local governance structures, improving responsiveness and accountability in climate risk management while reinforcing community-linked early warning dissemination.

Table 8- Summary of Activities, Beneficiaries and Implementation Approach

Activity	Key stakeholder/ Beneficiaries	Implementation Approach
Activity 2.1.1 Installation of 10 nos. automatic rain gauges and staff gauges with community monitoring	The intervention will directly benefit around 100,000 vulnerable flood-prone people in Batticaloa's lagoon and river catchment areas by improving early warning, preparedness, and climate resilience through community-based and national forecasting system integration. This represents the main direct beneficiary group under Component 2.	Implemented by Department of Meteorology and Disaster Management Centre (DMC) and Irrigation Department with technical support from UN-Habitat and LAs. Rain gauges and staff gauges will be installed at priority hydrological locations identified through participatory mapping and hydrological assessment. Community groups will co-manage monitoring stations, including routine readings, basic maintenance, and local reporting. Community representatives will also validate monitoring locations and contribute to interpretation of local rainfall and flood conditions. Data will be integrated into national forecasting systems to improve last-mile early warning accuracy.
Activity 2.1.2 Design one database with live dashboard	Irrigation Department, DMC, Meteorology Department	Establishment of an integrated real-time climate information platform managed by relevant government agencies. Community monitoring data will be incorporated alongside national datasets to improve localized forecasting. LAs and selected community representatives will have access to dashboard outputs for planning, emergency preparedness, and response coordination. The DSS will support transparent and shared decision-making on flood and drought risk management.
Activity 2.2.1 Develop one numerical modeling framework for river-lagoon flood forecasting	Irrigation Department, DMC, Meteorology Department. The intervention will benefit around 100,000 vulnerable flood-prone people in Batticaloa's lagoon and river catchment areas linked to Act 2.1.1	Led by national technical agencies with support from UN-Habitat. A simplified hydrological and flood forecasting model will be developed for the river–lagoon system using available technical datasets combined with community observations and historical flood knowledge. Communities will support validation of flood patterns and hotspot mapping. Model outputs will be used jointly by national and LAs to support early warning decisions and prioritization of adaptation actions, including linking with Component 1 interventions.
Activity 2.2.2 Establish inter-agency coordination platform integrating community organizations	Local government agencies with community representatives	Implementation of a coordinated multi-agency and community-led early warning system linking meteorological, irrigation, disaster management, and LAs with CBOs. Community focal groups (including women-led early warning groups and VDMCs) will disseminate alerts through local communication channels and support last-mile outreach. The mechanism ensures joint decision-making on risk communication, flood response actions, and coordination of preparedness measures at community level.

72. **Beneficiary calculation note:** The beneficiary figures presented in Tables 7 and 8 represent activity-level estimates of populations benefiting from individual interventions. These figures include overlapping geographical areas and beneficiary groups. The consolidated project beneficiary estimate is approximately 100,000 direct beneficiaries and 220,000 indirect beneficiaries, as presented in paragraph 93.

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COMPONENT 3: Capacity Building of Government and Communities to Respond to Flood and Drought Hazards

Outcome 3 Communities and sub-national institutions are empowered to plan, implement, manage, and monitor climate adaptation interventions for long-term resilience.

73. This component ensures the sustainability of investments made under Components 1 and 2 by strengthening institutional capacity, community leadership, and governance systems. Capacity building is undertaken throughout project implementation to enable government agencies and communities to participate in planning, implementation, operation, monitoring, and long-term maintenance of restored ecosystems, hydrological systems, and climate information services.

74. The component institutionalizes co-management arrangements, strengthens local planning systems, integrates climate resilience into land-use planning, and supports Village Disaster Management Committees, farmer organizations, women's groups, and other local stakeholders to sustain adaptation investments beyond the project lifetime.

Output 3.1 Community institutions strengthened for locally led adaptation and disaster preparedness.

75. This output focuses on strengthening institutional, technical, and community capacities to ensure long-term sustainability of adaptation investments. It supports co-management of restored ecosystem and hydrological systems, strengthens local governance structures, and institutionalizes the use of climate information and early warning systems in decision-making. It ensures that both ecosystem restoration under Component 1 and climate information systems under Component 2 are effectively maintained, operated, and embedded within local planning and disaster risk management systems.

Activity 3.1.1 Conduct 15 training for local authorities, VDMCs, farmer organizations, women, youth, indigenous groups on NbS.

76. Training of LAs, VDMCs, farmer organizations, women, youth, and indigenous groups on NbS planning, implementation, and monitoring. Training covers NbS planning, practical implementation techniques, and monitoring to ensure adaptive management. Emphasis is placed on co-management, enabling communities to actively participate alongside government agencies in decision-making, operation, and maintenance of interventions. Gender-inclusive and participatory approaches ensure broad engagement. The training strengthens technical skills, fosters local ownership, and enhances the sustainability and effectiveness of ecosystem restoration, flood control, and water management interventions under Components 1 and 2.

Activity 3.1.2 Establish/revitalize VDMCs and women-led disaster response groups:

77. VDMC and 30 women-led early warning groups will be strengthened to operationalize early warning dissemination systems developed under Component 2. Building community disaster management and response capacities are crucial to build resilience, increasing survival rates and reducing injuries as communities are first responders during disasters. Considering the unique cultural context and its implications on women as outlined in the context analysis, building capacities of women led organizations including Self Help Groups (SHG) in disaster response is critical for timely and orderly evacuations, particularly during floods. VDMCs are mandated to be established at GN level in the Disaster Management Act of 2005. Building capacities of existing VDMCs and establishing VDMCs in other locations including training programmes and provision of critical lifesaving equipment will ensure adequate capacity to prevent loss of life and injuries due to timely response to disasters. This establishes a community-led first responder system that enhances survival, reduces losses, and improves the effectiveness of early warning and climate risk management systems.

Output 3.2: Climate-responsive planning and co-management systems established in Batticaloa Municipal Council and two Urban Councils, integrating Thona network management into local planning, operation, and maintenance systems.

78. This output strengthens the legal, regulatory, and technical capacity of local governments to protect and sustain drainage infrastructure and restoration investments made under Component 1. It integrates participatory mapping and community validation processes into formal land-use planning instruments, enabling Local Authorities to enforce protection of Thona networks against encroachment. By embedding co-management arrangements between LAs and communities, the output ensures that climate resilience is mainstreamed into statutory planning systems, providing the regulatory foundation needed to sustain project interventions beyond the project lifetime

Activity 3.2.1 Strengthen capacities of local government to develop, enforce and implement land use and land management plans related to "Thona" networks.

79. Strengthen the capacities of local government and communities to develop and enforce land use management plans related to Thona networks. Participatory mapping and community validation processes from Component 1 will be integrated into formal planning instruments, ensuring protection of drainage corridors and

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restoration investments from encroachment and land-use pressure. It is proposed to prepare land use plans and development plans incorporating DRR including maintenance and enhancement of the Thona networks through NbS by providing support to the selected Municipal Council/Urban Councils and LAs, and District Officers (DOs).

80. Strengthening local governments' capacity to identify urban planning gaps, regulatory issues, and integrate gender-responsive climate resilience is essential for sustainable and scalable interventions. Without robust legal and regulatory frameworks climate investments risk remaining fragmented, limiting adaptation outcomes to be unsustainable beyond this project, and defeats the overall aim of achieving climate adaptation goals not only at district level but also at national level. Application of tools and process of UN-Habitat such as Urban Planning Law for Climate Smart Cities, Planning Law Assessment Framework will meet the global standards of the processes applied in the project ensuring coherence and long-term impact.

Activity 3.2.2 Support local governments to maintain Thona networks through community-government co-management arrangements.

81. LAs and communities will co-manage the process, including surveying and demarcating Thonas, marking boundaries, and piloting local land use plans that integrate Thona networks. Moreover, the LAs will be supported to pass localized regulation (by-laws/ resolutions) to legally protect Thonas from encroachment. UN-Habitat field tested tools such as The Enabling Meaningful Public Participation in Spatial Planning toolkit, Housing Land and Propoerty Urban Law Tool for Conflict Prevention could be used to enhance capacities and improve skills of the staff in local government bodies. LAs will lead technical oversight and enforcement of by-laws for protection of drainage corridors, while community groups will be engaged through community contracts for eligible maintenance works. Communities will also support routine monitoring of Thona conditions, including reporting blockages, dumping, and damage, ensuring timely maintenance and sustained drainage functionality.

Output 3.3: One policy review, three knowledge products, and practical guidance on climate-resilient settlement planning prepared and disseminated to support replication and integration into district and local government planning processes.

82. This output consolidates lessons and evidence generated across the project into actionable policy and planning tools. It addresses gaps in existing settlement planning frameworks and ensures that climate resilience considerations generated through Components 1 and 2 are captured, documented, and translated into policy recommendations. By systematizing knowledge products and disseminating them to relevant institutions, this output supports practical guidance on resilient planning and the replication and scale-up of project approaches at district and national levels.

Activity 3.3.1 Review of settlement planning and related policies:

83. This activity reviews existing settlement planning processes and associated policies to identify regulatory gaps that constrain the integration of climate resilience into urban and rural development. Findings will inform the preparation of targeted knowledge products that promote climate-resilient city and settlement planning. The review will support efforts to establish climate resilience as a mandatory component of settlement planning, providing a stronger regulatory basis for sustaining NbS and drainage protection measures introduced under the project.

Activity 3.3.2 Preparation and dissemination of knowledge products and policy recommendations.

84. This activity captures implementation processes and lessons learned throughout the project through structured knowledge management activities. Case studies and policy briefs documenting project approaches, outcomes, and challenges will be prepared and disseminated to government agencies, LAs, and other stakeholders. This ensures that successful approaches to ecosystem restoration, community-based monitoring, and institutional coordination are documented and made accessible for replication and policy uptake beyond the project's geographic scope.

Table 9- Summary of Activities, Beneficiaries and Implementation Approach

Activity	Key stakeholders/Beneficiaries	Implementation Approach
Activity 3.1.1: Conduct 15 training for local authorities, VDMCs, farmer organizations, women, youth, indigenous groups on NbS.	LAs, VDMCs, farmer organizations, women, youth, and indigenous groups. Direct trainees: ~600 trainees	Training will be delivered by LAs with technical support from project partners through participatory workshops and field demonstrations. Sessions will focus on practical skills in ecosystem restoration, climate risk management, and shared operation and maintenance of interventions under Components 1 and 2.
Activity 3.1.2: Establish/revitalize VDMCs and women-	Communities in flood-prone areas. The activity will directly benefit approximately 300 members of VDMCs	Disaster Management institutions and LAs will organize training and operational support for VDMCs and women-led groups on early warning dissemination, preparedness, and emergency

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led disaster response groups	and women-led disaster response groups (those 300 are part of the 600 trainees).	response procedures linked to Component 2 systems.
Activity 3.2.1 Strengthen capacities of local government to develop, enforce and implement land use and land management plans related to "Thona" networks	The activity will directly strengthen approximately 100 local government officials in Municipal and Urban Councils and technical staff.	Municipal and Urban Councils will lead institutional strengthening activities with technical support. This includes applying planning tools and guidance to integrate climate risk considerations into development planning and regulatory processes. LAs, supported by district agencies, will conduct participatory planning processes with communities to map, demarcate, and integrate Thona drainage networks into land-use plans
Activity 3.2.2 Support local governments to maintain Thona networks through community-government co-management arrangements.	The activity will directly benefit approximately 80 local government staff and community representatives	LAs and community-based organizations will jointly define roles and responsibilities for maintenance, monitoring, and protection of restored systems. Co-management agreements and local bylaws will be developed through participatory consultations.
Activity 3.3.1 Review of settlement planning and related policies:	The activity will directly benefit approximately 50 local government and planning officials,	The implementing agency, in coordination with government counterparts, will conduct policy reviews and document lessons learned. Outputs will be prepared as policy briefs and case studies for dissemination to relevant institutions.
Activity 3.3.2 Preparation and dissemination of knowledge products and policy recommendations.	Government agencies, local authorities, and other stakeholders across Batticaloa District and beyond. The activity will directly benefit approximately 100 government officials, local authorities, and practitioners through access to knowledge products and policy recommendations.	The implementing agency will consolidate implementation processes and lessons learned throughout the project into case studies and policy briefs. These knowledge products will be prepared in coordination with government counterparts and disseminated to national and sub-national institutions, supporting replication and policy uptake of successful ecosystem restoration, community-based monitoring, and institutional coordination approaches beyond the project's geographic scope.

B. Economic, Social and Environmental Benefits

85. Urban and peri-urban flood-prone areas in Batticaloa District are increasingly exposed to intensified monsoonal rainfall, lagoon backflow, and progressive degradation of natural drainage systems, particularly Thona networks, wetlands, and irrigation cascades. Climate variability has led to more frequent and severe flood events alongside seasonal water scarcity, reflecting a growing hydrological imbalance across the lagoon–river–coastal system.

86. Recent flood events (2018, 2021, 2024–2025) demonstrate a rising trend in exposure and impacts, with displacement in high-risk GN divisions increasing from approximately 5% to 45% over the period39. Hydrological and community-based studies confirm that drainage blockage, unplanned urban expansion, and inadequate maintenance of Thona systems are primary drivers of flood amplification, alongside limited early warning reach and institutional coordination gaps.

Economic Benefits

87. The project is expected to generate significant economic benefits by reducing recurrent climate-induced losses and strengthening productivity in key sectors such as agriculture, and fisheries. This is particularly relevant in Batticaloa District, where frequent flooding, drought, and salinity intrusion continuously disrupt economic activities, damage infrastructure, and force households and public authorities to bear repeated recovery costs. Local Authorities estimate that recurrent flooding currently results in annual public expenditures of approximately USD 67,000 in Eravur Urban Council and USD 133,000 in Kattankudy Urban Council for drainage clearance, emergency repairs and flood response. In addition, annual economic losses to businesses, households and local industries are estimated at approximately USD 100,000 in Eravur and USD 333,000 in Kattankudy, while major flood events have displaced up to 3,000 families in affected urban areas. Batticaloa Municipal Council also incurs significant costs for drainage clearance, emergency operations, and disaster response, with estimated requirements of around USD 200,000 annually. By restoring ecosystem functions, improving drainage connectivity and strengthening community-based early warning systems, the project will significantly reduce these recurring losses while enhancing long-term economic resilience.

39 District Disaster Management data, 2024

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88. At present, flood-related economic losses in the district are estimated at approximately USD 11 million per major flood event (DMC, 2025). By restoring Thona drainage systems, rehabilitating key irrigation infrastructure, and strengthening early warning systems, the project is expected to reduce these climate-related losses by around 20–30%, in line with global evidence from Early Warning for All (EW4All) initiatives[40]. Applying this range to Batticaloa suggests potential avoided losses of approximately USD 2.2–3.3 million per major flood event. In addition, the project will reduce recurring public expenditure on drainage maintenance and emergency response by restoring natural hydrological connectivity rather than relying on repeated reactive interventions.

89. In the agricultural sector, improved water regulation, rehabilitation of irrigation tanks and restoration of the saltwater intrusion prevention bund are expected to increase cropping intensity from 1.0 to 1.4–1.5, benefiting approximately 55,000 acres of agricultural land. The Provincial Irrigation Department currently estimates annual expenditures of approximately USD 167,000 for tank bund strengthening and rehabilitation works, while Department of Agrarian Development spends an additional USD 33,000 annually on ad hoc repairs to associated water-control structures. The proposed climate-resilient rehabilitation will reduce the need for these repetitive emergency repairs while improving agricultural productivity, stabilizing farm and fisher incomes, reducing salinity impacts and protecting access to markets and services. Compared with conventional grey infrastructure, ecosystem-based adaptation is also expected to reduce long-term operation and maintenance costs by 30–50%, while providing additional ecosystem services and livelihood benefits.

Environmental Benefits

90. The project enhances ecosystem functionality by restoring degraded hydrological systems that underpin Batticaloa's natural climate resilience framework, including Thona drainage networks, wetlands, lagoons, and irrigation tanks improving habitats for aquatic species, mangroves, grazing land for livestock and wildlife, with desilting and removal of invasive species. Currently, approximately 55 Thona-type drainage systems are partially or fully degraded, reducing natural flood regulation capacity and increasing urban flood exposure. Restoration of these systems will improve hydrological connectivity across lagoon–wetland–tank networks, enhancing flood attenuation and water retention functions. Catchment and wetland restoration covering approximately 10ha of degraded ecosystems will improve groundwater recharge, reduce surface runoff velocity, and strengthen dry-season water availability. These interventions directly address ecosystem degradation identified as a key driver of vulnerability in the background. Coastal ecosystem restoration, including mangrove and riparian buffer rehabilitation, will reduce saline intrusion impacts affecting an estimated 5,000 acres of agricultural land, while also enhancing biodiversity and fish nursery habitats in lagoon systems enhancing alternative livelihoods, particularly for women. Overall, these ecosystem-based interventions restore critical regulating services such as flood control, water purification, soil stabilization, and climate regulation, thereby strengthening long-term resilience of both rural and urban systems.

Social Benefits

91. The project addresses key structural social vulnerabilities identified in the background, particularly 61.9% of the population with limited adaptive capacity41 and the disproportionate exposure of women, older persons, persons with disabilities, and low-income households to climate risks. These groups are consistently the most affected during floods and droughts due to limited access to resources, services, and decision-making processes.

92. Social benefits are generated through strengthened inclusive governance, improved access to early warning systems, and enhanced community-based disaster preparedness. The establishment and revitalization of VDMCs, Thona co-management structures, and community-based organizations, including women-led groups and farmer organizations, will strengthen local institutional capacity and resilience. As a result, women's participation in local disaster risk reduction and planning processes is expected to increase to at least 50%, compared to a current baseline of below 30% in many community-level governance systems.

93. The project will strengthen last-mile early warning coverage for approximately 100,000 direct beneficiaries in flood-prone communities through improved climate information, monitoring, and preparedness systems. Wider benefits will extend to approximately 220,000 people through enhanced flood risk management, drainage improvements, and climate-resilient planning. The beneficiary figures presented in Tables 7 and 8 are activity-level estimates and include overlapping geographic areas; therefore, they are not cumulative. The consolidated beneficiary figures above represent the total project reach and avoid double counting of beneficiaries who may benefit from multiple activities. National estimates indicate that Sri Lanka incurs approximately USD 19 million annually in health-related costs linked to floods and droughts, mainly due to waterborne and climate-sensitive diseases. By improving drainage and environmental conditions, the project will help reduce these preventable health burdens.

94. The project also supports livelihood resilience by reducing agricultural losses from climate shocks and

40 https://library.wmo.int/records/item/58209-early-warnings-for-all

41 Multidimensional Vulnerability Index, UNDP 2023

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promoting EbA approaches that enable fisheries, wetland-based livelihoods, and other nature-based income opportunities. These measures will strengthen income stability and long-term resilience of vulnerable households.

95. All project interventions will be implemented in accordance with the Adaptation Fund Environmental and Social Policy (AF ESP) and Gender Policy. Environmental and social screening, inclusive stakeholder engagement, culturally appropriate consultation processes, grievance redress mechanisms and monitoring of gender and social inclusion indicators will ensure that project benefits are equitably distributed while minimizing potential adverse environmental and social impacts.

Table 10- Summary of benefits

Dimension	Baseline	Expected Project Outcome	Direct & Indirect Beneficiaries	Evidence Source
Economic	High exposure to floods, droughts, and salinity intrusion; degraded Thona drainage systems and irrigation infrastructure; recurrent disruption of agriculture, fisheries, and urban economic activities. Estimated ~USD 11 million loss per major flood event; ~55,000 acres of agricultural land affected; low cropping intensity (~1.0).	20–30% (USD 2.2–3.3 million) reduction in climate-induced economic losses; cropping intensity increased from 1.0 to 1.4–1.5; 30–60% increase in agricultural incomes; improved productivity across ~55,000 acres through reduced flood damage, nature-based livelihood opportunities, improved water regulation, facilitates access to resources/services, and salinity control; reduced household and public recovery expenditures.	Direct: ~80,000 farming households, high-value mangrove fishers, and small enterprises in flood-affected areas. Indirect: Approximately 140,000 residents across Batticaloa District benefiting from reduced disruption to markets, transport, public services, and strengthened local economic resilience.	DMC Sri Lanka (2025); Department of Agrarian Development; Provincial Irrigation Department; Eravur UC; Kattankudy UC, EW4All global evidence; World Bank & UNEP NbS literature
Environmental	Degradation of ~55 Thona drainage systems; fragmented wetland– mangrove -lagoon–tank connectivity; increasing salinity intrusion affecting coastal and lagoon-adjacent systems. ~125 ha of degraded ecosystems and ~35,000-45,000 Ha exposed to salinity risk. Local authorities currently spend approximately USD 400,000/year on drainage maintenance, emergency repairs and flood management (Eravur and Kattankudy UC and Batticaloa MC). Provincial Irrigation Department spends approximately USD 167,000/year on tank rehabilitation, with an additional USD 33,000/year spent by Department of Agrarian Development on ad hoc repairs.	Restoration of hydrological connectivity across Thona–wetland–lagoon–tank systems; rehabilitation of ~10 ha ecosystems; improved flood attenuation, groundwater recharge, and dry-season water retention; reduced salinity intrusion.	Direct: ~70,000 people in restoration and high-risk ecological zones. Indirect: ~220,000 people benefiting from improved micro watershed regulation, reduced flood risk, and enhanced ecosystem services.	DMC GIS mapping; Irrigation Department Sri Lanka; University of Peradeniya soil salinity studies; SLJOL research
Social	61.9% of population with low adaptive capacity; high exposure of women and WHH, older persons with disabilities, indigenous populations and low-income households; women's participation in DRR governance <30%; limited early warning access and preparedness capacity.	≥50% women participation in DRR and local planning structures; strengthened VDMCs and community institutions (including women-led groups); improved last-mile early warning coverage for ~240,000 people; reduced exposure to flood-related waterborne diseases; enhanced livelihood resilience through EbA and diversified income opportunities.	~100,000 people benefit from improved early warning and preparedness systems; high-risk vulnerable groups (women-headed households, elderly persons, persons with disabilities, indigenous populations) benefit through targeted inclusion mechanisms. Indirect: ≈220,000 people benefiting from improved climate information and resilient planning systems.	UNDP Multidimensional Vulnerability Index (2023); Department of Census and Statistics Sri Lanka; DMC Sri Lanka; WHO / national health burden estimates

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C. Cost-effectiveness

96. Cost-effectiveness rationale for the specific interventions identified is summarized in Table 11 below. In summary, the proposed project demonstrates cost-effectiveness through its integrated components, utilization of low-cost small infrastructure, smart technology, community based/participatory approach and incorporation of NbS. Rather than replacing natural systems with high-cost engineered infrastructure, the project adopts a ecosystem-based approach that combines NbS with targeted climate-resilient ("green-grey") infrastructure where required. Furthermore, the complete project design process at full proposal stage will involve conducting a thorough cost-benefit analysis of all components and activities, together with an analysis of alternative solutions for ensuring cost efficiency.

97. The proposed investments are consistent with national and sub-national priorities including direct development plan for climate adaptation, ensuring institutional support, routine maintenance and budget allocations after project completion. Operation and maintenance responsibilities will be incorporated within the statutory mandates of the responsible government agencies, complemented by community co-management arrangements and routine monitoring, thereby improving the equitable access to benefits and enhancing cost-effectiveness of the investments.

98. Alternative technical options, including conventional grey infrastructure and different monitoring technologies, will be assessed during the full proposal preparation to confirm that the selected interventions provide the most appropriate balance between adaptation effectiveness, lifecycle costs, environmental sustainability and operational feasibility.

Table 11 Project Cost-Effectiveness

Proposed Action	Cost-effectiveness rationale	Estimated losses avoided / gains obtained (USD)	Alternative adaptation option	Why less cost-effective	Sustainability perspective
Rehabilitation and restoration of Thona canals, riparian buffers and improved stormwater drainage connectivity	**Future climate cost reduction:** Reduces recurrent community flooding, protects infrastructure, restores ecosystem services and improves drainage capacity. **Project efficiency:** Uses existing canal networks and natural drainage systems requiring less complex engineering solutions and lower capital investment. **Community involvement:** Local authorities, community groups and affected residents participate in identifying priority drainage issues and restoration activities. **Cost/Feasibility:** Low-cost, high-benefit intervention with potential ecosystem service benefits from restored wetlands, mangroves and community-managed green areas. **Safeguards:** Protects biodiversity and improves ecosystem functions.	Eravur UC estimates **USD 67,000/year** spent on drainage maintenance and approximately **USD 100,000/year** economic losses due to flooding. Kattankudy UC estimates **USD 133,000/year** for flood response and approximately **USD 333,000/year** annual economic losses, increasing up to **USD 1 million** during severe events. Approximately **800 families are displaced annually**, with major events affecting around **3,000 families**. Batticaloa Municipal Council incurs approximately **USD 200,000 annually** for drainage clearance, emergency operations, and disaster response. The project will help reduce these recurring costs through improved drainage, ecosystem restoration, and early warning systems.	Concrete-lined canals and contractor-driven drainage systems	Higher construction and maintenance costs; requires repeated repairs due to sedimentation and blockage; reduces ecological functions; provides limited flexibility under changing climate conditions; weak community ownership increases long-term costs.	Decision-making is devolved to local authorities and communities through participatory identification of drainage priorities. Local communities contribute traditional knowledge on flood pathways and seasonal risks. Community groups can support monitoring and maintenance, creating local ownership and reducing future operational costs. Restored wetlands and mangroves provide community benefits including improved livelihoods, biodiversity conservation and ecosystem services.
Repair and restoration of approximately 10 km saltwater intrusion earth bund with drainage	**Future climate cost reduction:** Protects agricultural lands from salinity intrusion and stabilizes farming productivity. **Project efficiency:** Uses simple, nature-compatible control structures with high benefits compared with hard coastal protection. Moves from repeated reactive maintenance to a planned,	Approximately **USD 33,000/yea**r is currently spent by Provincial Irrigation Department on periodic ad hoc repairs and emergency strengthening of saltwater intrusion control structures following damage and deterioration. These recurring expenditures mainly address	Concrete seawalls, revetments and other hard coastal protection	High capital and maintenance costs; potential ecological damage; disruption of sediment	Farmer organizations and local communities participate in design, prioritization and maintenance decisions. Builds local capacity for managing water resources and salinity risks. Supports equitable

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improvements	climate-resilient rehabilitation approach that improves structural performance, reduces future repair requirements and provides long-term protection for agricultural areas. **Community involvement:** Implemented with participation of farmer organizations and local labour, strengthening ownership. **Cost/Feasibility:** Affordable, locally maintainable and lower cost over the long term. **Safeguards:** Minimizes disruption to lagoon ecosystems and maintains natural processes.	immediate failures rather than improving long-term climate resilience. Protects more than **5,000 acres of farmland**, reducing livelihood losses associated with salinity and declining agricultural productivity.	structures	movement; less adaptable to future sea-level rise and changing coastal conditions.	benefits for smallholder farmers and strengthens community resilience through locally managed solutions while improving food security..
Rehabilitation of 10 small and medium irrigation tanks	**Future climate cost reduction:** Improves drought and flood resilience, stabilizes agricultural production and supports inland fisheries. **Project efficiency:** Improves existing assets rather than creating new infrastructure. Shifts from repeated reactive rehabilitation of damaged irrigation assets to planned climate-resilient upgrading of existing infrastructure, extending asset lifespan and reducing long-term maintenance costs. **Community involvement:** Farmer organizations support operation and maintenance responsibilities. **Cost/Feasibility:** Low-cost upgrades with rapid implementation and high livelihood benefits. **Safeguards:** Avoids land acquisition, displacement and major environmental impacts.	The Provincial Irrigation Department estimates that approximately **USD 167,000/**year is currently required for periodic repairs, bund strengthening, downstream improvements and rehabilitation of existing irrigation tanks affected by climate-related stresses. In addition, local institutions spend approximately **USD 33,000/year** on upgrading associated irrigation structures. These expenditures largely represent recurring corrective maintenance to address deterioration and damage rather than comprehensive climate-resilient upgrading	Construction of new medium and large reservoirs	High capital costs, lengthy approval processes, land acquisition, displacement risks and greater environmental impacts.	Decision-making is transferred closer to farmers through farmer organizations and local water user groups. Strengthens local O&M capacity, builds institutional legacy and ensures investments respond to community priorities. Local knowledge is combined with technical assessments for adaptive water management.
Improvement of culverts and bridges to enhance flood conveyance, connectivity and climate resilience	**Future climate cost reduction:** Reduces economic losses affecting **14 GN Divisions and 49,000 acres of paddy land**, while maintaining access to services and markets. **Project efficiency:** Uses targeted local interventions with ready-to-implement designs. **Community involvement:** Prioritized through consultation with farmers, communities and affected stakeholders. **Cost/Feasibility:** Quick implementation with lower cost compared with large-scale flood infrastructure. **Safeguards:** Avoids large-scale environmental and social disruption.	Reduces repeated repair costs, agricultural losses, transport disruption and emergency response costs associated with flood events.	Large upstream flood control structures	High capital investment, longer implementation period, potential displacement and ecological impacts; less suitable for localized drainage problems.	Communities help identify critical connectivity gaps and prioritize interventions. Local authorities and users participate in monitoring performance and maintenance. Ensures adaptation investments respond to actual community needs.
Installation of flood sensors, gauges and Decision Support System (DSS)	**Future climate cost reduction:** Enables real-time flood response and reduces disaster impacts. **Project efficiency:** Scalable and automated climate information system. **Community involvement:** Linked with DMC, local authorities and community-based monitoring mechanisms. **Cost/Feasibility:** Affordable digital infrastructure with low physical footprint. **Safeguards:** Minimal environmental impact.	Avoids flood-related losses through improved early warning, faster emergency response and better decision-making.	Manual flood monitoring systems	Delayed information, higher labour costs, inconsistent data and increased risk due to late warnings.	Improves local access to climate information and supports informed community decision-making. Builds local capacity to understand climate risks and supports transparent, accountable adaptation planning.

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Integrated ecosystem-based and hydrological systems planning approach guiding all investments	**Future climate resilience:** Restores connectivity between wetlands, Thona canals, lagoons, drainage systems and irrigation networks, addressing multiple risks including floods, droughts and salinity intrusion. **Project efficiency:** Uses GIS analysis, hydrological modelling, climate risk assessment and community validation to prioritize investments. **Cost/Feasibility:** Builds on existing natural and engineered systems, reducing capital and long-term maintenance costs. **Community involvement:** Combines scientific analysis with local knowledge.	Improves efficiency of all project investments by avoiding maladaptation and directing resources to the highest-risk locations.	Isolated sector-based infrastructure interventions	Fragmented investments, duplication of resources, higher maintenance costs and reduced resilience benefits.	Establishes collaborative decision-making between communities, government institutions and technical partners. Supports flexible programming, learning and adaptive management. Strengthens transparency, accountability and long-term institutional capacity while reducing maladaptation risks.

D. Consistence with National, Sub-national and Local Sustainable Development Strategies

99. The project is aligned with the priority water resources, ecosystem and biodiversity, and human settlements sector objectives of Sri Lanka's last National Adaptation Plan[42](NAP 2016–2025), builds on its climate resilience priorities as the country transitions to a follow-on adaptation framework, and will be designed to align with the forthcoming 2025–2034 NAP[43] and the recently launched National Climate Finance Strategy of Sri Lanka (2025–2030)[44] to support effective financing and implementation of climate adaptation at scale. Furthermore, it also aligns with the NDC adaptation sector targets (2021) agriculture (NDC target 5 and 6), fisheries (NDC target 2), water sector (NDC target 5 and 7), biodiversity (NDC target 5) and human settlements sectors (NDC Target 1,2,3,and 4)[45].

100. The project translates these national priorities into locally led adaptation actions through three complementary components. Component 1 contributes to national priorities on integrated water resources management, ecosystem restoration and resilient human settlements by restoring Thona networks and strategically selected irrigation tanks using climate-informed planning and NbS. Component 2 supports national priorities for climate information and disaster risk management by strengthening flood forecasting, early warning systems and decision-support tools for adaptive water management. Component 3 contributes to institutional strengthening by enhancing the capacities of LAs, CBOs and technical agencies to integrate climate risk into land-use planning, disaster preparedness, watershed management and local development planning, thereby supporting long-term implementation of national adaptation priorities.

101. The project interventions also align with GoSL's flagship "Clean Sri Lanka" Programme (Environment pillar)[46] through environmental restoration and improvement of natural assets, eco system services and biodiversity through rehabilitation of the Thona network and connected wetlands and small and medium irrigation tanks. The Project also aligns with the Batticaloa Five-Year District Development Plan (2024 – 2028).

102. Implementation will be undertaken in close coordination with the District Secretariat, Divisional Secretariats, LAs and relevant technical agencies to ensure that investments respond to locally identified priorities and are integrated into existing district and local development processes. Consistent with Locally Led Adaptation (LLA) principles, project interventions will be prioritized through participatory planning processes. The project will be guided by UN-Habitat's Gender Policy and Plan 2020-2025 and Environment and Social Safety standards which align with the relevant AF Environmental and Social Policy (AF ESP) and results framework. standards.

[42] https://unfccc.int/sites/default/files/resource/NAP-Sri-Lanka-2016.pdf

[43] https://slcs.chamber.lk/wp-content/uploads/presentation/day2/Sonali_Senaratna_Sellamuttu2_Climate_Resilience_and_Adaptation.pdf

[44] https://www.treasury.gov.lk/api/file/ef2dff2b-8a19-4bc8-9936-10c3e17a9264

[45] Updated Nationally Determined Contributions (NDCs) to the United Nations Framework Convention on Climate Change (UNFCCC), 2021, Ministry of Environment, Sri Lanka.

[46] https://cleansrilanka.gov.lk/

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Table 12- Alignment with National and Sub-national Strategies

Policy / Strategy	Specific Clause / Target / Sector	Project Alignment	Component & Key Activities	Alignment with LLA Principles
National Adaptation Plan (NAP 2016–2025)	Water Resources Sector – Strategy 1: Integrated water resources management, restoration of drainage systems and catchment protection	Restores Thona drainage network, improves hydrological connectivity, and rehabilitates irrigation tanks to reduce flood and drought risks in lagoon–river systems	**C1 (1.1.1-1.1.3, 1.2.2)**	**Principle 1:** Devolving decision-making – Local authorities, farmer organizations and communities participate in prioritization of Thona and irrigation interventions. **Principle 5:** Building understanding of climate risk – Community knowledge is combined with hydrological studies and GIS analysis.
	Ecosystems & Biodiversity Sector – Strategy 6: Restoration of degraded ecosystems and strengthening ecosystem services for disaster risk reduction	Rehabilitation of wetlands, riparian buffers, and lagoon-linked ecosystems to restore natural flood regulation and salinity control functions	**C1 (1.2.1, 1.2.3)**	**Principle 2:** Addressing structural inequalities – Women, youth and vulnerable groups participate in ecosystem restoration activities. **Principle 4:** Investing in local capabilities – Community groups are supported for long-term ecosystem stewardship and maintenance.
	Human Settlements Sector – Strategy 2: Climate-resilient urban drainage and flood risk reduction	Improvement of stormwater drainage, culverts, and urban Thona systems in flood-prone urban/peri-urban areas	**C1 (1.1.2-1.1.4)**	**Principle 1:** Devolving decision-making – Local Authorities and affected communities identify priority drainage problems. **Principle 8:** Collaborative action and investment – Implementation involves Local Authorities, technical agencies and communities.
	Disaster Risk Reduction Sector – Strategy 3: Early warning systems and risk-informed planning	Hydrological modelling, real-time flood forecasting, and early warning dissemination systems for community-level response	**C2 (2.1.1-2.1.2) C3 (3.1.2)**	**Principle 5:** Building understanding of climate risk – Local monitoring improves understanding of flood behavior. **Principle 7:** Transparency and accountability – Shared climate information supports informed decisions by communities and institutions.
NDC 3.0 (Sri Lanka Adaptation Component)	Agriculture – Target 5: Climate-resilient agricultural practices and sustainable land & water management	Improves irrigation efficiency, cropping intensity, and salinity control through tank and watershed restoration	**C1 all activities**	**Principle 1:** Devolving decision-making – Farmer organizations participate in selecting and managing irrigation interventions.
	Agriculture – Target 6: Strengthening climate-resilient water management for agriculture	Enhances water availability and reduces crop losses through integrated watershed and drainage rehabilitation	**C1 all activities**	**Principle 4:** Investing in local capabilities – Farmer groups strengthen operation and maintenance capacity.
	Water Sector – Target 5: Integrated water resource management and climate-resilient infrastructure	Restores interconnected lagoon–Thona–tank hydrological systems and improves drainage connectivity	**C1 all activities**	**Principle 5:** Building understanding of climate risk and uncertainty – Hydrological assessment guides investments.
	Water Sector – Target 7: Strengthening early warning and disaster risk management systems	Establishes real-time monitoring, flood forecasting, and decision-support systems	**C2 all activities**	**Principle 1:** Devolving decision-making – Communities participate in monitoring and dissemination of warnings. **Principle 7:** Transparency and accountability – Climate information is shared through accessible systems. **Principle 5:** Building understanding of climate risk- risk informed climate development planning
	Human Settlements – Targets 1–4: Climate-resilient urban infrastructure and risk-informed planning	Upgrades flood-prone urban drainage systems and integrates risk into local development planning	**C1 and C3**	
National Climate Change Policy (2012)	Objective 2: Minimize adverse impacts of climate change on livelihoods and ecosystems	EbA reduces floods, droughts, and salinity impacts on agriculture and settlements	**C1 all activities**	**Principle 4:** Investing in local capabilities – Strengthens institutional capacity of Local Authorities and communities. **Principle 8:** Collaborative action and investment – Implementation involves Local Authorities, technical agencies and communities.
	Objective 4: Mainstream climate change into development planning	Integrates climate risk into VDMCs, local authority planning, and watershed governance systems	**C3 all activities**	
National Climate Finance Strategy (2025–2030)	Priority Area: Scaling adaptation finance in water and agriculture sectors using blended and ecosystem-based approaches	Demonstrates investable NbS model through co-managed drainage and irrigation systems	**C1 (1.1.2, 1.1.3, 1.2.2)**	**Principle 3:** Providing patient and predictable funding – Supports long-term community-based adaptation investments. **Principle 8:** Collaborative action and investment – Promotes government-community partnerships.

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Clean Sri Lanka Programme	Environmental Pillar: Restoration of natural ecosystems, water bodies, and biodiversity corridors	Rehabilitation of Thona systems, wetlands, and irrigation tanks to restore ecosystem services	**C1 all components**	**Principle 4:** Investing in local capabilities – Builds community ownership for ecosystem management. **Principle 8:** Collaborative action and investment – Implementation involves Local Authorities, technical agencies and communities.
National Disaster Management Plan (2023–2030)	Operational Strategy 4: Strengthening early warning systems and community preparedness	Establishes hydrological monitoring, forecasting systems, and VDMC-based response mechanisms	**C1 (1.1.1)** **C2 (all)** **C3 (3.1.2)**	**Principle 1:** Devolving decision-making – VDMCs and communities participate in preparedness actions. **Principle 2:** Addressing inequalities – Women-led disaster groups and vulnerable groups are prioritized. **Principle 5:** Building understanding of climate risk-monitoring and forecasting enables robust understanding of climate risk **Principle 7:** Transparency and accountability – Shared climate information supports informed decisions by communities and institutions.
Eastern Province / Batticaloa District Development Plan (2024–2028)	Priority Area: Flood and drought risk reduction, climate-resilient livelihoods, infrastructure rehabilitation	Direct implementation of district priority interventions through watershed restoration and urban drainage upgrades	**All Components (C1–C3)**	**Principle 1:** Devolving decision-making – Priorities identified through district and community consultations. **Principle 8:** Collaborative action and investment – Strengthens coordination among government, communities and partners.
Coastal Zone Management Plan (2024–2029)	Coastal Ecosystem Management: Lagoon restoration, salinity control, and coastal protection	Reduces salinity intrusion through bund rehabilitation and restores lagoon hydrological balance	**C1 (1.2.1, 1.2.3)**	**Principle 2:** Addressing inequalities – Supports vulnerable coastal livelihood groups including fishers and small farmers. **Principle 4:** Investing in local capabilities – Community groups support restoration and maintenance. **Principle 8:** Collaborative action and investment – Implementation involves Local Authorities, technical agencies and communities.

E. Compliance with Relevant National Technical Standards and the Environmental and Social Policy of the Adaptation Fund.

103. The proposed project will be implemented in accordance with the Government of Sri Lanka laws and regulations, and in compliance with national technical standards and relevant legislation. The project was selected for submission to the Adaptation Fund through a national and sub-national consultation process with mandatory stakeholders. These obligations align with the principles of Adaptation Fund.

104. National technical standards and operational guidelines that will be adhered to are issued by the Irrigation Department, Department of Agrarian Development, Urban Development Authority (UDA), DMC, Road Development Authority (RDA), Central Environmental Authority (CEA), National Building Research Institute and other relevant agencies and include Environmental and Construction standards and internationally accepted building code. Technical standards for interventions will be incorporated into project design, procurement, construction, supervision and long-term operation and maintenance.

105. The project will also fully comply with the AF ESP and Gender Policy. Environmental and social screening will be undertaken for all interventions to ensure consistency with national environmental legislation while promoting ecosystem integrity, gender equality, participation of vulnerable groups, protection of biodiversity, public health and occupational safety. Capacity-building activities under Component 3 will strengthen the application of standards during planning, implementation, monitoring and maintenance, ensuring sustainability beyond the project period.

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Table 13: Alignment with National Technical Standards and AF ESP

Project Component / Activity	Applicable National Technical Standard / Regulation	Relevant AF ESP Principle(s)	Responsible Government Institution	Compliance Mechanism	Capacity-building Support
Component 1: Rehabilitation of Thona drainage systems, irrigation tanks and saltwater intrusion bunds	Irrigation Department Guidelines for Rehabilitation of Minor Irrigation Systems (2020); Agrarian Development Department Technical Guidelines	1, 2, 4, 9	Irrigation Department; Department of Agrarian Development	Hydrological investigations; engineering design approval; technical review; construction supervision; final certification	Training of LAs, Farmer Organizations and community groups on operation, maintenance and climate-resilient water management
Component 1: Stormwater drainage improvements, culverts and bridges	UDA Zoning and Drainage Guidelines; Standard Specifications for Construction and Maintenance of Roads and Bridges (RDA/CIDA)	1, 2, 3, 4, 5, 9	UDA; RDA; Construction Industry Development Authority	Engineering design review; development permits; construction supervision; compliance inspections	Capacity building for LAs on climate-resilient urban drainage planning, infrastructure maintenance and asset management
Component 1: Wetland, riparian and ecosystem restoration	National Environmental Act; Fauna and Flora Protection Ordinance; Forest Ordinance	1, 9, 10, 11, 12	CEA; Department of Wildlife Conservation; Forest Department	Environmental screening; IEE/EIA where required; biodiversity safeguards; environmental monitoring	Training on ecosystem restoration, biodiversity conservation and environmental monitoring for community organizations and LAs
Component 2: Flood forecasting, hydrological monitoring, decision-support systems and early warning	Disaster Management Act No.13 of 2005; Disaster Management Centre technical protocols; National Spatial Data Infrastructure standards	1, 3, 5, 11, 13	DMC; Department of Meteorology; Survey Department	Integration with national forecasting systems; data quality assurance; operational protocols; inter-agency coordination	Capacity building for DMC, LAs and VDMC on monitoring, forecasting and early warning dissemination
Component 3: Climate-resilient land-use planning, ecosystem restoration governance and institutional strengthening	National Physical Planning Department (NPPD) Specifications; UDA Planning Standards; Local Authority Planning Regulations	1, 2, 3, 5, 6,9,10	NPPD; UDA; LAs	Integration of climate risk and ecosystem considerations into local development plans; technical review of planning instruments; compliance with planning and environmental regulations	Training for LAs, VDMCs and community organizations on climate risk screening, EbA, climate-resilient land-use planning, co-management of Thona networks, and enforcement of local planning regulations
Community-based implementation across all components	National Procurement Guidelines for Community-Based Organizations; Government Financial Regulations	1, 2, 5	Ministry of Finance; LAs; District Secretariat	Community procurement procedures; financial reporting; audits; contract monitoring	Training for community organizations in procurement, financial management, safeguards and reporting

F. Other Funding Sources,

106. The proposed project has been designed following a structured review of ongoing, approved, and pipeline climate resilience and development investments in Sri Lanka, supported by national consultations with relevant technical agencies and LAs in Batticaloa. The project is explicitly positioned within a distinct adaptation niche focused on ecosystem-based restoration of Thona drainage systems, lagoon–settlement hydrological connectivity, and community-scale flood and salinity risk reduction in Batticaloa. Existing and planned initiatives in Sri Lanka largely address sector-specific infrastructure (irrigation, flood control, agriculture productivity), basin-scale water resource management, or coastal/marine livelihoods, whereas this project targets the localized hydrological interface between ecosystems and settlements, which remains under-addressed in current programming.

107. Lessons from the Climate Resilience Improvement Project (CRIP) and the Integrated Watershed and Water Resources Management Project demonstrate that large-scale infrastructure is most effective when complemented by community-based ecosystem restoration, integrated watershed governance, and localized climate-risk planning. These lessons have informed the project's emphasis on integrating hybrid (grey-green) solutions, community co-management, and institutional coordination in Batticaloa. Accordingly, the project ensures full complementarity and no duplication through spatial targeting, functional differentiation, and institutional coordination mechanisms.

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Table 14: Other Funding Sources

Project Name	Donor and Project Period	Focus Area	Geographic Scope	Relationship to Proposed Project	Duplication Avoidance and Complementarity
Empowering Coastal Sri Lanka: Livelihoods and Preparedness for a Climate-Resilient Future (E-COAST Sri Lanka)	Adaptation Fund (Project period: 2027-2032) AF Pipeline	Coastal livelihoods, fisheries resilience, coastal disaster preparedness	Coastal districts including Batticaloa	Shares broad climate resilience objectives in coastal zones	No duplication. E-COAST focuses on marine and coastal livelihood systems, fisheries resilience, and coastal disaster preparedness, whereas the proposed project targets inland–lagoon–Thona drainage systems and buffers, wetland restoration, and settlement-scale flood pathways and preparedness for last mile outreach. Although geographically adjacent in Batticaloa District, the two interventions are functionally distinct across marine vs. inland hydrological systems, with coordination ensured through national and district climate governance platforms.
Mundeni Aru River Basin Development Project	AFD / EU / GoSL (Project period: long-term basin development programme- Planning stage Euro 172mn	Large-scale river basin development, irrigation infrastructure, flood risk modelling	Batticaloa and Ampara (Mundeni Aru Basin)	Provides basin-scale hydrological data	No duplication. Complementary at hydrological interface level. The proposed project does not intervene in major irrigation or basin infrastructure. Instead, it operates at micro-hydrological scale within Thona drainage networks and lagoon–settlement interfaces in Batticaloa. Basin-level flood hydrological datasets from this project will be used as inputs for localized adaptation planning and community early warning systems, ensuring vertical integration rather than duplication.
Climate Resilience Improvement Project (CRIP)	World Bank / GoSL (Project period: ongoing national infrastructure programme) USD 152mn	Flood control infrastructure, dam safety, hydromet systems	National (including Eastern Province)	National-scale flood forecasting and infrastructure strengthening	No duplication. Strong systems complementarity. CRIP focuses on macro-level flood infrastructure, dam safety, and forecasting systems, whereas the proposed project focuses on community-managed drainage restoration, EbA, and settlement-level flood mitigation in Batticaloa lagoon–Thona systems. Hydrometeorological data and forecasting outputs from CRIP will strengthen local decision-making without overlap in physical investments.
Integrated Watershed and Water Resources Management Project	World Bank / GoSL (Project period: 2022–2024) USD 75mn	Watershed governance, water resource planning, institutional strengthening	Mahaweli River Basin	Provides institutional and technical watershed management lessons	No duplication. Contextual and methodological complementarity. The project is geographically outside Batticaloa but provides transferable lessons on watershed governance, institutional coordination, and participatory water management. The proposed intervention applies these principles specifically to the lagoon–Thona micro-watershed system in Batticaloa, adapting methodologies rather than replicating investments.
Integrated Rural (Rurban) Development and Climate Resilience Programme	World Bank (Project period: 2025–2030) USD 120 mn	Rural livelihoods, climate-smart agriculture, value chains	Multi-district including Batticaloa, Ampara, Northern Province	Supports rural resilience and agricultural transformation	No duplication. Functional differentiation. While the Rurban programme focuses on agriculture productivity, rural infrastructure, and value chain development, the proposed project targets ecosystem restoration, flood-risk reduction, drainage rehabilitation, and hydrological resilience in settlement and lagoon systems. Overlap in geography is addressed through clear separation of sectoral mandates and coordination with district planning authorities.
UNDP / UN-Habitat / FAO Proposed Joint Programme (Integrated Community-Led Adaptation and Climate Risk Reduction Programme)	Under concept note / planning stage USD20mn	Climate-risk-informed planning, EbA, community resilience systems	National with pilot districts including Batticaloa	Potential strategic partner programme with thematic alignment in climate resilience	No duplication. Complementary at design stage; coordination to be ensured if approved. Both initiatives share common thematic areas such as EbA and climate-risk-informed planning; however, the proposed B-CARE intervention is focused specifically on Batticaloa's Thona–lagoon hydrological system and settlement-scale flood resilience, while the UNDP-led proposal is envisaged as a broader national framework for integrated climate-risk governance and poverty resilience systems. If both proceed, coordination mechanisms will be established to ensure geographic and functional differentiation, avoiding duplication while enabling mutual learning and scaling of EbA methodologies.

G. Learning and Knowledge Management

108. The project adopts a locally led adaptation approach, where communities are active contributors to knowledge generation, validation and application.

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Community members—including women, youth, fisher groups, farmer organizations, VDMCs, and other vulnerable groups—will participate in seasonal reflection meetings, participatory monitoring, and co-management reviews following flood and drought events. These forums will document local observations on Thona performance, flooding patterns, salinity intrusion, ecosystem recovery and the effectiveness of adaptation measures.

109. The findings will be jointly reviewed with LAs and technical agencies to adjust restoration priorities, maintenance schedules, annual work plans, community investments and operation and maintenance arrangements throughout implementation. Progress will be monitored through participation records, pre- and post-training assessments, community feedback surveys and annual learning reviews to ensure feedback loops to inform adaptative management and allow interventions to be adjusted where necessary.

110. Similarly, traditional and Indigenous knowledge relating to historical flood pathways, Thona management, lagoon hydrology, water-sharing practices and ecosystem stewardship will be documented through participatory consultations with the free, prior and informed consent of participating communities. Knowledge holders will be acknowledged, and information will be used only in accordance with agreed community protocols and the AF ESP. Local knowledge will complement hydrological modelling, ecosystem assessments and climate information services and will be periodically validated with communities and technical agencies before being incorporated into restoration planning, land-use planning and flood management decisions.

111. Learning generated through Component 3 demonstration activities—including ecosystem restoration, hydrological monitoring, co-management of Thona networks, climate-resilient land-use planning and community adaptation measures—will be translated into practical knowledge products, including technical guidelines, operational manuals, policy briefs, case studies, multimedia materials and training modules.

112. To ensure equitable access, knowledge products will be produced in Sinhala, Tamil and English, using printed materials, community meetings, local radio, demonstration sites, mobile information platforms and digital repositories. This blended approach ensures that communities with limited digital connectivity can equally access and use project knowledge.

113. Learning generated by the project will be institutionalized through existing government planning and coordination mechanisms. Lessons and technical guidance will be integrated into LA development planning, watershed management, NbS co-management arrangements, disaster preparedness planning and climate-resilient land-use planning processes. Regular learning exchanges involving the MoE, District Secretariat, UDA, NPPD, Department of Irrigation, Department of Agrarian Development and other technical agencies will review implementation experience and incorporate validated lessons into technical guidelines and future investment planning.

114. Annual learning forums and policy dialogues will disseminate evidence nationally, while partnerships with universities will support independent research, student internships and scientific documentation of adaptation outcomes, strengthening long-term national capacity for EbA.

Table 15: Summary of Knowledge Management Strategy

Learning & Knowledge Management Element	Project Strategy	How Learning is Used / Institutionalized	Monitoring & Feedback
Community participation in learning	Communities, including women, youth, farmers, fishers, VDMCs and vulnerable groups, participate in seasonal reflection meetings, participatory monitoring, NbS co-management reviews and ecosystem restoration assessments.	Community observations are used to revise restoration priorities, annual work plans, operation and maintenance arrangements, and local adaptation measures.	Participation records, community feedback surveys, seasonal learning reports and annual learning reviews.
Knowledge generation and adaptive management	Component 3 demonstration sites function as learning laboratories, generating evidence on ecosystem restoration, flood management, hydrological connectivity, and community adaptation.	Evidence is analyzed jointly by communities, LAs and technical agencies to improve implementation and guide future investments.	MEL reports, technical assessments, annual adaptive management reviews and Project Steering Committee meetings.
Traditional and Indigenous knowledge	Historical flood pathways, Thona management practices, lagoon ecology and traditional coping strategies are documented through participatory consultations with Free, Prior and Informed Consent (FPIC).	Traditional knowledge is validated alongside scientific evidence and incorporated into restoration design, land-use planning and climate adaptation guidance, while respecting community ownership and agreed protocols.	Community validation workshops, documentation records and periodic technical reviews.

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Knowledge products and accessibility	Technical guidelines, operational manuals, policy briefs, case studies, videos and awareness materials are prepared in Sinhala, Tamil and English using both digital and non-digital formats.	Knowledge products support planners, LAs and communities to replicate successful EbA practices beyond the project sites.	User feedback, distribution records, website analytics (where applicable) and stakeholder evaluations.
Institutionalization within government systems	Lessons are integrated into local authority planning, watershed management, disaster preparedness, Thona co-management arrangements and climate-resilient land-use planning processes.	Government agencies use project evidence to update technical guidance, planning procedures and future climate adaptation investments.	Policy dialogue outcomes, adoption of technical guidance, integration into local planning documents and institutional reporting.
Knowledge dissemination and scaling	National and district learning events, peer-to-peer exchanges, university partnerships and technical networks disseminate project lessons and best practices.	Successful approaches are promoted for replication in similar lagoon, wetland and flood-prone landscapes across Sri Lanka.	Learning event reports, knowledge-sharing statistics, research outputs and replication initiatives.

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H. Consultative process

115. A diverse range of stakeholders, including researchers from ICHARM (International Centre for Water Hazard and Risk Management under the auspices of UNESCO), and the University of Moratuwa have been consulted during the development of this concept note, while further inputs have been received from the District Disaster Management Unit, central and local government officials, CSOs, SMEs and livelihood groups, indigenous community representatives, women's organizations, farmer organizations and affected rural and urban communities. There will be further consultations with these stakeholders during further development of the full proposal keeping in mind GESI principles.

Table 16Stakeholders and Communities Engaged in Consultations

No	Name of People Participated	Date of Meeting	Key Points Agreed/ Discussed	How inputs informed project design
01	**Provincial Irrigation (Chenkalady): Eng. ASM Irsath,** Ms. Aziza (Deputy Country Programme Manager - DCPM, UN-Habitat) Eng. Aleem (National Project Manager - NPM, UN-Habitat)	17/06/2025	● Improve spillways of 4 medium-sized tanks to enhance climate resilience and reduce downstream flood risk ● Incorporate tanks into broader flood adaptation strategy. 	Recommendations on spillway improvements and hydrological connectivity informed Activities under component 1, prioritizing rehabilitation of strategically selected irrigation tanks as part of ecosystem-based restoration of the micro-hydrological (lagoon–Thona) system, rather than stand-alone infrastructure investments
02	**Eravur Urban Council: Chairman M.S. Naleem,** Ms. Aziza (DCPM, UN-Habitat) Eng. Aleem (NPM, UN-Habitat)	17/06/2025	● Restore Silted Thona system to reduce flood risks ● Master plan implementation expected to benefit approximately 18,500 families ● Ward offices with focal officers established to improve community responsiveness. ● Letter dated 07.07.2025 endorsing proposed B-CARE project and nominating focal point	Strong emphasis on restoring silted Thona networks informed Activities 1.1.1 and 1.1.2, while ward-level coordination mechanisms informed Activity under output 1.1 and 2.1 on community co-management, participatory implementation, and monitoring
03	**Women's Self-Help Group:** President and 6 members Ms. Aziza (DCPM, UN-Habitat) Eng. Aleem (NPM, UN-Habitat) Mr. Razeen (UN-Habitat)	18/06/2025	● Strengthen women's role in flood response and water management ● Reactivate village disaster committees ● Improve communication during evacuations ● Promote ecotourism and community-based resilience initiatives.  	Component 3 (Activities under output 3.1 strengthened to establish women-led early warning groups, strengthen VDMCs, promote women's participation in NbS co-management and ensure gender-responsive community capacity building. Community consultations also highlighted the need for livelihood opportunities linked to ecosystem restoration to be further developed during full proposal preparation.
04	**Deputy Director of Provincial Irrigation:** Eng. S. Subaharan Ms. Aziza (DCPM, UN-Habitat) Eng. Aleem (NPM, UN-Habitat) Mr. Razeen (UN-Habitat)	18/06/2025	● Establish River Basin and Lagoon Task Forces ● Enhance coordination between upstream and downstream flood management ● Restore irrigation tanks	The proposal incorporated integrated watershed management, hydrological planning, and coordination mechanisms linking upstream and downstream interventions. Community-based evacuation planning was integrated into

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			● Engage communities in evacuation planning. 	Component 2.
05	**Urban Council of Kattankudy:** SHM Asfar (Chairman) and 13 Council Members Ms. Aziza (DCPM, UN-Habitat) Eng. Aleem (NPM, UN-Habitat) Mr. Razeen (UN-Habitat)	18/06/2025	● Revise and implement drainage master plan ● Prioritize restoration of Thona and stormwater systems ● Develop early warning systems ● Strengthen urban flood mitigation and funding mobilization. ● Letter dated 07.07.2025 endorsing proposed B-CARE project. 	Confirmed prioritization of Thona restoration, climate-resilient drainage planning (Output 1.1) and localized early warning systems (Output 2.1)
06	**Director of Irrigation – Batticaloa:** Eng. M.I.M.Z. Ibrahim Ms. Aziza (DCPM, UN-Habitat) Eng. Aleem (NPM, UN-Habitat) Mr. Razeen (UN-Habitat)	18/06/2025	● Prioritize tank and bund upgrades (e.g., Kithul Tank) ● Renovate Munthani Aru basin and abandoned Thonas ● Conduct hydrological studies ● Develop evacuation infrastructure in Kiran and Santhiveli Consider implications of Mundeni Aru project – a loan extended by AFD which has been under development since 2017.	Hydrological modelling and watershed assessments were incorporated before final prioritization of investments. Existing and planned investments (including AFD-supported initiatives) were reviewed to avoid duplication and ensure complementarity. (Activity 1.1.1 and 2.2.1)
07	**Stakeholder Consultation Meeting (chaired by GA Batticaloa)**: Government Agent – Batticaloa, Department of Irrigation (Director and Provincial Deputy Director), Department of Agrarian Services, District Planning Unit and Assistant Commissioner Local Government (ACLG), Divisional Secretariats (Kiran, Vavunathivu, Oddamavadi), Disaster Management Centre (DMC), Pradeshiya Sabha Chairpersons, Chamber of Commerce, Kiran Farmer Organizations, Kalkudah Civil Society Organization, Batticaloa District Civil Society Collective, Wings of Women , Academia (University of Moratuwa, Eastern University), International partners -online (ICHARM Japan), and UN-Habitat (Ms. Aziza, Eng. Aleem)	18/06/2025	● Finalize concept note for submission to Adaptation Fund by August 2025 ● Select 40 Thonas and 15 tanks for intervention ● Construction of a saltwater intrusion prevention bund to mitigate the effects of rising lagoon water levels ● Emphasize early warning systems, equitable water access, strong inter agency coordination, and livelihood restoration.	The cross-sectoral consultation validated an integrated EbA approach combining restoration of Thona networks, rehabilitation of irrigation tanks, saltwater intrusion management, hydrological forecasting, and community governance, informing Components 1, 2 and 3. While stakeholders initially identified approximately 40 Thonas and 15 irrigation tanks for intervention, these were subsequently re-prioritized through technical assessment, climate-risk analysis, and available financing, resulting in the selection of 30 Thonas and 10 strategically important tanks. Proposals outside the Adaptation Fund's scope (e.g. major infrastructure investments) were referred to relevant government

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			● Letters dated 09.07.2025 and 15.10.2025 from GA recommending priority consideration and referencing consent of Chairman District Coordination Committee and Minister of Industry and Enterprise Development for the B-CARE proposal as a timely, holistic and transformative step towards long-term climate resilience.  	programmes. programmes.
08	**Vavunatheevu DS and PS:** Mrs. N. Sathyananthy (Divisional Secretary) Chairman, Pradeshiya Sabha Ms. Aziza (DCPM, UN-Habitat) Eng. Aleem (NPM, UN-Habitat) Razeen (UN-Habitat)	19/06/2025	● Prioritize water supply project for 3,500 families ● Establish treatment plant and distribution system ● Coordinate with National Water Supply & Drainage Board for connections ● Improve irrigation system to support 15,000 acres of cultivation. 	The proposed water supply scheme and treatment plant were identified as important development priorities but were not included because they fall outside the adaptation scope and financing envelopes of the project. However, concerns regarding water security informed inclusion of irrigation tank rehabilitation, watershed restoration and improved water management measures that contribute to climate resilience were included.
09	Indigenous community representatives and post-conflict returnee community representatives from Pondukalchenai (Kiran DS Division) facilitated by Kiran Divisional Secretariat, including Mr. S. Sivanesarasa, Assistant Director Planning (ADP), Kiran DS Division; Mr. Krishnapillai Pragash, President, Kiran Farmer Organization; and Mr. Ravi, Grama Niladhari (GN), Pondukalchenai	20,06 2025	  • Recurrent flooding and prolonged inundation severely affect Indigenous and returnee communities. • Blocked natural drainage systems, undersized culverts and inundated access roads restrict mobility and market access. • Flooding disrupts traditional livelihoods, including upland cultivation, small-scale paddy farming, fishing, honey collection, forest-based food gathering and seasonal labour. • While primary schools are available locally, students must travel to nearby towns for secondary education; flooding frequently disrupts road access and public transport, limiting access to schools, healthcare and other essential services.	The consultation directly informed the prioritization of Thona restoration, climate-resilient culvert and access improvements, and rehabilitation of hydrological connectivity under Component 1. It also strengthened the project's Locally Led Adaptation approach by integrating Indigenous Peoples and returnee communities into community-government co-management arrangements, participatory planning, monitoring, and decision-making processes. The consultation reinforced targeted inclusion measures for vulnerable groups, including Indigenous Peoples, returnee populations, women and other marginalized communities, consistent with the Adaptation Fund Gender Policy and Principle 2 of the Locally Led Adaptation Principles.
10	**Ministry of Rural Development, Social Security & Community**	28.07.2025	Endorsement of B-CARE proposal – Letter dated 20.07.2025	Reinforced the project's locally led adaptation approach and strengthened

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	Empowerment: Minister Upali Pannilage and Secretary (Acting) A.H.L.D. Gamini Wijesinghe **UN-Habitat:** Ms Harshini Halangode (Country Programme Manager), Ms Aziza Usoof (DCPM); Eng. Aleem (NPM)			institutional ownership for implementation through local government and community organizations.
11	**Ministry of Urban Development, Construction and Housing:** Minister Anura Karunathilaka; Secretary Ranjith Ariyarathna **UN-Habitat:** Ms Harshini Halangode (Country Programme Manager), Mr Laxman Perera (Snr Advisor), Ms Aziza Usoof (DCPM); Eng. Aleem (NPM)		Endorsement of B-CARE proposal – Letter dated 13.08.2025	Component 3 expanded to include identification of planning and regulatory gaps, climate-resilient land-use planning and preparation of knowledge products to support replication.
12	**Ministry of Finance – National Planning Department: UN-Habitat:** Ms Harshini Halangode (Country Programme Manager), Eng. Mohamed Aleem (NPM), Ms Tameez Bohoran (Project Architect)		Confirmation that activities are not duplicated and request for initiation of activities. Email dated 22.10.2025	Confirmed alignment with national development priorities and informed the preparation of complementarity with ongoing projects and programmes.

116. The project concept was developed through a consultation process involving national ministries, provincial and district government agencies, LAs, technical institutions, academia, civil society organizations, farmer organizations, women-led groups and community representatives. Consultations also included indigenous community representatives and returnee community representatives from Pondukalchenai (Kiran DS Division), facilitated through the respective Divisional Secretariats, Kiran Farmer Organization, and Eravur Urban Council. The returnee communities consulted are populations that returned to their original places of residence following the prolonged civil conflict and continue to face challenges associated with limited basic services, infrastructure gaps, and exposure to climate-related risks. Recent reporting in the local newspaper Thinakaran also highlights the continued challenges faced by indigenous families in Panichankerni (Koralai Pattu North – Vaharai DS Division), including poverty, limited access to sanitation, and fragile livelihoods, reinforcing the need to embed equity, inclusion and resilience in project interventions. Communities highlighted concerns related to recurrent flooding, access disruptions, and impacts on climate-sensitive livelihoods and essential services. These concerns informed the project's prioritization of restoring local hydrological systems, improving climate-resilient connectivity, and strengthening inclusive community participation and co-management mechanisms. The consultations contributed to the application of LLA Principle 2 by ensuring that the specific vulnerabilities of indigenous peoples, post-conflict returnee populations, and other marginalized groups were considered in project design and implementation arrangements Findings from preliminary consultations and focused discussions with key stakeholders were consolidated and presented during the district multi-stakeholder consultation chaired by the Government Agent, where priorities were validated and refined through cross-sectoral discussion. Comments received were systematically screened against the project's climate adaptation objectives, eligibility under the Adaptation Fund, technical feasibility while complementing existing investments. Priorities that fell outside the project scope (such as large-scale drinking water supply infrastructure) were referred to relevant government programmes, while adaptation priorities were incorporated into the project design. Particular efforts were made to engage women and community representatives, whose inputs informed the design of gender-responsive governance arrangements, women-led early warning groups and participatory monitoring approaches. During full proposal preparation, stakeholder engagement will be further expanded through a structured gender and social assessment to ensure meaningful participation of women, youth, indigenous peoples, persons with disabilities and other marginalized groups in project design, implementation, monitoring and benefit sharing.

I. Justification for Funding Requested

117. The sustainability of the project has been considered from the very early stage of design. The project targets highly climate-vulnerable and conflict-affected communities, including returnee populations, and aligns

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with national adaptation priorities and the Adaptation Fund results framework. It strengthens resilience through a locally led adaptation approach combining EbA, climate information systems, institutional strengthening, and community co-management.

118. Under the business-as-usual scenario, rehabilitation of drainage infrastructure, irrigation tanks and flood management systems is generally undertaken using limited government resources and focuses on restoring damaged assets to their original condition. Such investments rarely incorporate climate projections, hydrological modelling, ecosystem connectivity, watershed planning or participatory management, resulting in repeated damage, increasing maintenance costs and declining effectiveness under more frequent and intense climate events.

119. The requested Adaptation Fund financing is justified since the full cost of addressing climate risks cannot be met through business-as-usual (BAU) development investments. Existing government resources primarily finance restoration of damaged infrastructure to restore functionality but are insufficient to incorporate climate-resilient design, hydrological modelling, EbA, community co-management, and localized climate information systems required to address increasing flood and drought risks under future climate scenarios. The funding requested through this proposal is fully sufficient to cover the full costs of implementing the specified interventions to address climate risks that continue to prevail with BAU scenarios.

120. The project provides strong additionality by shifting from reactive infrastructure repair to system-based ecosystem adaptation informed by hydrological connectivity analysis, GIS-based risk mapping, and participatory vulnerability assessments at micro-level hotspots. This ensures that interventions respond to projected climate risks rather than historical damage.

121. The project will directly benefit approximately 100,000 people (51% women) in climate-vulnerable communities across five DS Divisions through ecosystem restoration, climate-resilient infrastructure, climate information services, and strengthened local capacities. A further 220,000 people will benefit indirectly through improved flood regulation, water security, ecosystem services, early warning systems, and climate-resilient planning enabled by restored interconnected hydrological systems.

122. The project also generates wider positive transformational impacts, including strengthened district planning systems, improved disaster preparedness, enhanced ecosystem services, and scalable adaptation models for replication. Sustainability is ensured through institutionalized community–government co-management of Thona networks, irrigation systems, and drainage infrastructure; strengthened capacities of VDMCs, farmer organizations, and women-led groups; and integration of climate-resilient planning tools into government systems.

123. The project allocates 79.9% of AF resources to Components 1 and 2, focusing on physical adaptation and climate information systems, while Component 3 ensures institutional embedding, knowledge management, and scaling.

Table 17: Summary of funding justification

Project Activity	BAU Scenario	Adaptation Fund (AF) Project Scenario
Rehabilitation of 30 Thona drainage canals	Periodic desilting or reactive repairs where budgets permit. No systematic prioritization or climate analysis.	Rehabilitation will be prioritized through hydrological assessments, GIS mapping and climate risk analysis to restore the connectivity of the Thona network, wetlands and lagoon system. Community co-management arrangements, operation and maintenance plans, and participatory monitoring will improve long-term sustainability while reducing flood duration and increasing resilience to future climate extremes.
Improvement of 3 km of priority stormwater drainage systems	Drainage improvements are generally implemented in response to localized flooding and focus on restoring existing capacity, with limited integration into broader watershed management or future climate projections.	Drainage improvements will be integrated with the wider Thona and watershed system using climate-informed design standards and hydraulic assessments. LAs and community committees will jointly manage operation and maintenance, ensuring long-term functionality under increasing rainfall intensity and urban flooding.
Repair and restoration of 10 km of saltwater intrusion prevention earth bunds	Existing bunds are repaired after damage occurs, with limited consideration of projected sea level rise, changing lagoon dynamics or long-term salinity risks. Maintenance is often constrained by limited financial resources.	Bund rehabilitation will incorporate climate risk assessments, hydrological modelling and community knowledge to reduce saline intrusion due to sea level rise into agricultural lands under future climate scenarios. Farmer organizations will participate in monitoring and maintenance, strengthening long-term protection of productive land and freshwater resources.
Rehabilitation of	Routine rehabilitation restores	Rehabilitation will restore water retention, flood attenuation and

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10 small and medium irrigation tanks	storage capacity but is generally undertaken as isolated infrastructure maintenance without considering ecosystem services, watershed connectivity or climate resilience.	ecosystem functions through an integrated ecosystem-based approach. Tank selection will be informed by hydrological modelling and vulnerability assessments, while farmer organizations will co-manage operation and maintenance to improve resilience to floods, droughts and changing rainfall patterns.
Creation of riparian green buffers along Thonas at four locations	Vegetation management is limited and undertaken on an ad hoc basis, with little emphasis on ecosystem restoration, biodiversity enhancement or community stewardship.	Native riparian vegetation will be restored to stabilize canal banks, reduce erosion and sedimentation and flooding, improve biodiversity and strengthen ecosystem services including revenue generation opportunities. Women and youth groups will participate in planting, maintenance and monitoring, promoting long-term stewardship and generating local knowledge on EbA.
Improve culverts and bridges at five community-identified locations	Repairs are generally undertaken following infrastructure damage and focus on restoring access, with limited consideration of future flood flows, drainage connectivity or community priorities.	Community-identified priority crossings will be upgraded using climate-resilient design informed by hydrological studies to improve flood conveyance, drainage connectivity and safe access during extreme weather events. LAs and communities will jointly monitor and maintain these assets to ensure continued performance under changing climate conditions.

J. Sustainability of the Project

124. The project delivers integrated economic, social, and environmental resilience benefits to highly vulnerable communities at the target locations, while directly addressing the underlying drivers of climate vulnerability identified in the project area, including degraded drainage systems, obstruction of natural hydrological pathways, and fragmented institutional responsibilities for climate risk management. It places particular emphasis on women, youth, persons with disabilities, and Indigenous groups. It strengthens climate-resilient livelihoods through EbA, hydrological connectivity restoration, and improved climate risk management systems, contributing to long-term adaptive capacity in a conflict-affected and climate-sensitive landscape. The project aligns with national adaptation priorities and the Adaptation Fund results framework, ensuring complementarity across components. It establishes an integrated system of ecosystem restoration, climate information services, institutional strengthening, and community co-management, enabling sustained resilience outcomes beyond project duration. Overall, the intervention shifts communities from reactive coping to proactive, planned adaptation, while strengthening institutional capacity to access and manage future climate finance.

125. **Economic Sustainability:** The project activities promote investing in the resilience of vulnerable communities, physical, natural and social assets and ecosystems to ensure economic sustainability from the perspective of increased crop yields, reduced crop destruction of crops due to flooding/drought and alternative livelihoods approach. Interventions will be designed using climate-informed hydrological assessments/analysis and EbA principles to improve long-term functionality under future climate scenarios. Community stewardship arrangements and locally appropriate ecosystem-based livelihood opportunities linked to restored Thona networks, and wetlands will strengthen incentives for communities to maintain ecosystem functions beyond the project period. This approach enhances overall wellbeing and the quality of life of vulnerable people, reducing health costs. Furthermore, learning and capacity building will contribute to avoiding future costs related to climate change and the impacts of extreme climate events or disasters. Reduced flood damage avoided losses from saline intrusion and improved water regulation will generate recurring economic benefits that justify continued government investment in maintenance. The lessons learnt on economic benefits and resilience can be integrated into national plans and policies to enable replication. The approach will also provide robust lessons and insights into future funding opportunities.

126. **Social Sustainability:** Community ownership will be strengthened through establishment or strengthening of Thona Co-management Committees, VDMCs, women-led early warning groups and farmer organizations, which will participate not only in implementation but also in monitoring, maintenance planning and periodic review of adaptation priorities. By fully engaging communities in all their diversities from the targeted settlements with a focus on women, PwDs, indigenous communities, youth and older persons and maintaining a gender balance, a gender responsive and human rights-based approach to social integration and inclusivity of the project outputs will be achieved. The participants are involved in development of plans/strategies, assessments, and monitoring of the project to ensure their interest, ownership, and understanding in adaptation in the medium and long term. The project will also strengthen intergenerational participation, preserve local, indigenous and traditional knowledge, and build local governance and social cohesion, supporting sustainable community decision-making and resilience. The awareness raising and capacity enhancement of the local actors will also lead to long-lasting change, including towards gender equality and women's empowerment. Most importantly the increased resilience of communities and their infrastructure will reduce community vulnerabilities in the long run. Once the benefits to local, vulnerable communities are shared nationally, it is likely that other

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district authorities will also welcome adaptation initiatives for their communities. This will facilitate the up-scaling/out-scaling of project activities to other areas for vulnerable communities.

127. **Institutional Sustainability:** The project will institutionalize climate adaptation knowledge and decision-support systems within government planning and operational processes. All generated models, geo-spatial data and databases, climate risk assessments, land-use planning tools, technical guidelines and training modules developed under the project will be transferred to relevant national and sub-national institutions with clear responsibilities for updating and application. The project will also address existing fragmentation among agencies responsible for flood management, irrigation, disaster management, land-use planning, and ecosystem management by strengthening coordination mechanisms among government institutions, local authorities, and community organizations. Multi-stakeholder learning forums coordinated by the District Secretariat will review implementation experience, incorporate lessons into district development planning, and facilitate replication in other climate-vulnerable districts. Universities and technical institutions will continue to support applied research, monitoring and periodic refinement of adaptation tools after project completion.

128. **Environmental Sustainability:** Ensuring environmental sustainability is central in planning of the project and is considered an integral and necessary condition. An eco-system-based adaptation approach based on natural resource management is essential in fragile habitats. Agriculture, including rain-fed farming, needs measures for soil and water conservation, especially in lands with high salinity. Flora and fauna protection and conservation will also be propagated through NbS. Home garden development practices will be considered. NbS will not be implemented as stand-alone restoration activities but as part of an integrated approach combining hydrological modelling, ecosystem restoration, climate-resilient engineering and community stewardship. Riparian vegetation, mangrove restoration, wetland rehabilitation and Thona restoration will reduce erosion, sedimentation, flooding and saltwater intrusion, thereby reducing long-term maintenance requirements and improving the durability of restored systems under increasing climate variability. The project will further strengthen the protection and long-term functionality of restored systems by supporting the identification, mapping, and integration of critical hydrological corridors, including Thona networks and drainage pathways, into local planning processes to reduce future obstruction and degradation caused by unplanned development. Periodic ecological monitoring undertaken jointly by communities and responsible government agencies will support adaptive management of restored ecosystems beyond the project period.

129. **Financial sustainability**: Financial sustainability is achieved through integration of climate resilience into existing public investment systems and agency Operation and Maintenance (O&M) frameworks, rather than creating parallel financing mechanisms. Operation and maintenance responsibilities are assigned to relevant agencies including the Department of Irrigation, Agrarian Development Department, LAs and Provincial Irrigation Authorities, with community co-management for routine monitoring and minor maintenance. Clear institutional roles and community-government co-management arrangements will reduce the risk of delayed maintenance and fragmented responsibility that have contributed to the degradation of existing drainage and water management systems. All infrastructure will be formally integrated into government O&M budgets prior to project closure, ensuring continuity of services and long-term functionality.

130. During full proposal preparation, operation and maintenance plans, including indicative annual maintenance requirements and responsible institutions, will be prepared for all major investments and incorporated into agency work programmes and budgets. All physical assets created or rehabilitated under the project will remain publicly owned and managed by the government institutions that hold the statutory mandate for their operation and maintenance. Rather than representing a simple transfer of assets at project completion, the project will establish community-government co-management arrangements whereby VDMC, Thona Co-management Committees, farmer organizations, women's groups and Indigenous representatives participate in monitoring, routine maintenance planning, reporting of maintenance needs and adaptive management. These arrangements will ensure that local knowledge, community oversight, and institutional responsibilities are combined to maintain restored drainage networks and ecosystem functions beyond the project period. O&M responsibilities, monitoring arrangements and indicative budget requirements will be agreed during implementation and incorporated into the routine work programmes of the agencies responsible, ensuring that locally led adaptation continues beyond the project period.

Replication and Scalability

131. The project has been designed as a replicable model for integrated EbA in Sri Lanka. Standardized technical guidelines, hydrological assessment methodologies, co-management arrangements, climate-resilient planning tools and knowledge products developed under the project will enable replication by provincial councils, district administrations and LAs using existing government development programmes and future nationally financed climate adaptation initiatives. Replication will therefore depend primarily on institutional uptake and integration into planning systems rather than future external financing alone.

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Table 18: Summary of Project Sustainability

Project Component/ Intervention	**Economic & Financial Sustainability**	**Social & Institutional Sustainability**	**Environmental Sustainability**	**Operation, Maintenance & Monitoring after Project Closure**
Component 1: Restoration of Thona networks, wetlands, and associated drainage systems to improve hydrological connectivity, flood management, and ecosystem resilience through co-managed, climate-resilient interventions (Activities 1.1.1 to 1.1.4 and 1.2.1).	Reduced floods and salinity losses reduce long-term recovery costs and protect agriculture, fisheries and urban livelihoods. Selected works implemented through community contracting (CBOs, farmer organizations, women/youth groups) ensuring local income generation and O&M incentives.	Thona Co-management Committees, VDMCs, Farmer Organizations, women-led groups, and Indigenous representatives participate in planning, monitoring, and routine maintenance. Farmer Organizations are also engaged through community contracting modalities as implementation partners, strengthening ownership, accountability, and local stewardship. Increased health and well-being co-benefits are also anticipated. Capacity strengthening is provided under Component 3.	Climate-informed restoration using hydrological assessments, native riparian vegetation and ecosystem-based approaches reduce erosion and sedimentation while improving watershed resilience and biodiversity.	**Lead:** Irrigation Department & LAs. **Community role:** routine canal upkeep, reporting blockages, vegetation management under co-management and community contracts. **Monitoring:** seasonal inspections + community monitoring system.
Component 1- Rehabilitation of medium irrigation tanks and saltwater exclusion bunds (Activity 1.2.2-1.2.3)	Protects productive agricultural land food and water security and reduces climate-related losses. Maintenance incorporated into responsible agency asset management programmes.	Farmer Organizations are engaged not only in consultation but as contracted implementation partners under a community contracting modality, participating in rehabilitation works, water management planning, and joint monitoring with government agencies. This strengthens ownership, accountability, and long-term stewardship.	Climate-resilient design based on hydrological modelling and future flood projections improves durability and reduces future repair requirements.	Lead: Provincial Irrigation Department & Department of Irrigation. Community role: Farmer Organizations contracted under community-based implementation arrangements for routine maintenance, minor repairs, and monitoring support, with oversight by government agencies. Monitoring: pre- and post-monsoon inspections, structural assessments, and participatory reporting mechanisms.
Component 2 – Flood forecasting, DSS and Early Warning System	Reduced disaster losses justify continued government investment in operation of forecasting systems. Data is integrated into existing government information systems.	Institutional integration of DMC, Irrigation Dept., Met Dept. and LAs with VDMCs and women-led early warning groups for last-mile dissemination and validation. ensures coordinated multi-stakeholder preparedness and response.	Continuous monitoring improves adaptive management of floods and ecosystems	Lead: DMC & Meteorological Dept. Community role: data collection (rain/river gauges), alert dissemination. Monitoring: system audits + community validation feedback loops.
Component 3 – Capacity building, knowledge management and climate-resilient planning	Improved institutional capacity enables LAs to access national climate finance and integrate adaptation into annual planning and budgeting processes.	Climate-resilient planning tools, land-use guidance, training modules and community monitoring systems institutionalized within District Secretariats, LAs and relevant ministries. Women, Indigenous persons, youth and persons with disabilities represented in governance structures and annual learning forums enable feedback loops and adjustments to interventions.	Knowledge generated through participatory monitoring supports adaptive ecosystem management and replication of EbA approaches.	Lead: District Secretariat, LAs and relevant national agencies. Monitoring: annual multi-stakeholder learning forums, periodic updating of planning tools and integration into district development plans.

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K. Environmental and Social Impacts and Risks

132. The project involves physical infrastructure interventions (Upgrading bridges and culverts, saltwater intrusion bund and rehabilitation of small irrigation tanks) carrying medium-level environmental and social risks, manageable through an Environmental and Social Management Plan (ESMP) and monitored via an E&S Monitoring Plan. Screening confirmed the project does not involve involuntary resettlement, impacts on critical/legally protected habitats, indigenous peoples, or cultural heritage sites, and does not require an environmental license. Category B is therefore confirmed as the appropriate classification. The project does not include Unidentified Sub-Projects (USPs), as all proposed interventions have been sufficiently defined in terms of their scope, nature, and target locations to allow environmental and social risks to be identified during project preparation. Any technical refinements during implementation will remain within the approved project framework and will be subject to ESMP screening and Adaptation Fund Environmental and Social Policy and Gender Policy requirements.

Table 19 Alignment with AF's Environmental & Social Policy

Checklist of environmental and social principles	No further assessment required for compliance	Potential impacts and risks – further assessment and management required for compliance
Compliance with the Law		**Low risk** of non-compliance with environmental, labour, land-use, and municipal regulations during small-scale works and ecosystem restoration, particularly during final site selection and design. This will be **mitigated** through mandatory ESP-based screening for all subprojects, securing all required statutory approvals (including National Environmental Act, provincial/municipal clearances, and sectoral technical approvals), and integrating compliance requirements into procurement, contracts, and community contracting agreements. A compliance log will be maintained by the DPMU with UN-Habitat oversight to ensure continuous monitoring and corrective action.
Access and Equity		**Moderate risk.** There could be a risk of unequal access to project benefits particularly for vulnerable and marginalized groups. **Mitigation:** The project aims at practicing inclusivity and nondiscrimination as accounted for by the country's constitution. A detailed stakeholder analysis and implementation of community consultations will be done to ensure fair distribution of project benefits among all groups. The project will pay special attention to women and youth for equitable access to the benefits of the project. Key issues have been considered through the initial gender assessment conducted at Concept Note stage. UN-Habitat's participatory process, (Peoples Process[47]) ensures inclusivity at all levels of the project. It is mandatory that UN-Habitat incorporates Grievance Redress Mechanisms (GRMs) into its projects to address complaints from stakeholders, ensuring transparency and accountability.
Marginalized and Vulnerable Groups		**Low risk.** Vulnerable groups identified through consultations and national poverty databases (Samurdhi and Aswesuma) will be re-verified during full proposal development. **Mitigation** measures include: (i) inclusive targeting and prioritization of women, youth, persons with disabilities, Indigenous and low-income households; (ii) mandatory representation in VDMCs, Thona committees, and co-management structures; (iii) engagement through community contracting for implementation and maintenance activities; and (iv) continuous monitoring of participation and benefit distribution to ensure equity and inclusion
Human Rights		**Low risk**. The project follows a rights-based approach aligned with national legal frameworks and UN principles on equality, non-discrimination, participation, and access to information. No adverse impacts on Adaptation Fund policies are anticipated. **Mitigation** measures include: (i) implementation of a Stakeholder Engagement Plan ensuring inclusive and meaningful participation; (ii) information disclosure in accessible formats and local languages; (iii) establishment of a multi-tier grievance redress mechanism; and (iv) continuous monitoring to identify and address exclusion, discrimination, or rights-related concerns in a timely manner
Gender Equality and Women's Empowerment		**Moderate risk**: Women's participation and benefits may be hindered by systemic (cultural) gender disparities in project areas. **Mitigation:** During the concept formulation, consultations at all levels, particularly in the field, ensured that adequate space for women voice has been created and encourage active participation. However, due to cultural aspect, continued focus should be made through out the project cycle to ensure women are part of the process. UN-Habitat will ensure GEDSI approach in capacity development with local government and community representatives who will contribute towards ensuring an enabling environment towards women's empowerment and gender equality within and beyond the project activities.

[47] Peoples Process is a is a bottom-up community development methodology that places residents at the heart of project planning and implementation

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Core Labour Rights		**Low risk**. Sri Lanka has ratified key International Labour Organization (ILO) conventions on core labour standards. The project will comply with national labour laws and UN-Habitat safeguards, ensuring protection of workers' rights across all project activities. **Mitigation** measures include implementation of Labour Management Procedures (LMP) and Occupational Health and Safety (OHS) requirements in line with national regulations and Adaptation Fund/UN standards; inclusion of contractor codes of conduct prohibiting child and forced labour; mandatory provision of personal protective equipment (PPE) and safety induction training; regular site supervision and reporting; and enforcement of corrective actions through contract management and compliance monitoring mechanisms.
Indigenous Peoples		**Moderate risks.** During the project conception formulation stage, presence of indigenous people were identified in a few locations of the target areas. **Mitigation:** Continued attention will be made through out the project cycle to ensure indigenous people are part of the process and have equal access to all project activities. UN-Habitat will ensure adequate consultations will be held with indigenous people in their diversity during full proposal preparation stage.
Involuntary Resettlement	**X**	No involuntary resettlement is foreseen as project activities do not involve large infrastructure or modification of tenure. The Peoples Process, the community centered approach, will be used in all project locations (on a voluntary basis). Therefore, no resettlements or even displacement to new locations is expected
Protection of Natural Habitats		**Low risk**. Project activities are unlikely to overlap with legally protected or high conservation value areas, though this will be confirmed during full proposal screening. **Mitigation** measures include biodiversity screening for all sites, avoidance of sensitive habitats, prioritization of degraded areas, use of native species, preparation of site-specific ESMPs for the risk works, and ecological monitoring during implementation
Conservation of Biological Diversity		**Low risk**. The project promotes ecosystem restoration through NbS and will not introduce invasive species. **Mitigation** measures include biodiversity screening during project preparation, use of only native or locally adapted non-invasive species, compliance with the Fauna and Flora Protection Ordinance and the National Invasive Alien Species (IAS) Policy, application of ESMPs for relevant activities, and regular biodiversity monitoring throughout implementation.
Climate Change		**Low risk.** The project promotes climate-resilient, NbS and does not involve large-scale construction or land conversion. **Mitigation measures** include application of climate-risk screening to all interventions, use of validated climate and hydrological data for planning and design, application of climate-resilient design standards, and technical review to ensure interventions remain robust under future climate scenarios.
Pollution Prevention and Resource Efficiency		**Low to Medium risk**. The risks may arise from construction waste, spoil, and disposal of invasive vegetation during rehabilitation works. **Mitigation** measures include implementation of ESMP-based waste management and pollution control measures, safe handling and disposal of waste and invasive species, contractor compliance with environmental requirements, coordination with LAs for disposal and recycling where feasible, and regular monitoring of pollution prevention and resource efficiency during implementation.
Public Health		Low risk. Temporary health and safety risks may arise during small-scale construction and ecosystem restoration activities. **Mitigation measures** include implementing community health and safety provisions through the ESMF/ESMPs, including site management, traffic management, dust and noise control, safe water measures, advance community notification of works, and monitoring of incidents and grievances through the project Grievance Redress Mechanism (GRM).
Physical and Cultural Heritage		**Low risk.** No known physical or cultural heritage sites are currently identified within project intervention areas, subject to confirmation during full proposal preparation through consultations with relevant authorities and local communities, including religious and cultural institutions. **Mitigation measures** include application of Chance Find Procedures under the ESMF, contractor and site supervisor training, and coordination with relevant authorities in accordance with the Antiquities Ordinance in the event of any accidental discoveries during excavation or earthworks.
Lands and Soil Conservation		**Low risk.** Project activities may cause localized soil disturbance, erosion, or sedimentation if not properly managed during restoration and small-scale works, particularly in drainage and watershed areas, with potential downstream impacts on waterways and irrigation systems. **Mitigation measures** include soil and slope stability screening during site selection and design, incorporation of soil conservation and bioengineering measures within ESMPs, seasonal phasing of works to avoid high rainfall periods, and ongoing monitoring of soil stability and drainage performance with corrective maintenance through responsible agencies and community co-management arrangements.

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PART III: IMPLEMENTATION ARRANGEMENTS

133. This project is designed and implemented in full alignment with the LLA principles of the Adaptation Fund, placing communities at the center of decision-making, implementation, and long-term stewardship. Adaptation priorities including the rehabilitation of Thona drainage networks, ecosystem restoration measures, and flood risk reduction infrastructure are identified and prioritized through community-informed assessments, participatory planning processes, and structured engagement with local institutions such as VDMCs, farmer organizations, women's groups, and youth groups. Indigenous knowledge and lived experience of flooding, saltwater intrusion, and drainage bottlenecks are systematically integrated into hydrological studies, design choices, and investment sequencing, ensuring that adaptation actions are context-specific and locally relevant.

134. In line with Enhanced Direct Access (EDA) principles, project funds are channeled directly to national and local actors (i.e., relevant EEs), through General Treasury of Sri Lanka, empowering them to decide how resources are allocated and utilized based on locally identified climate risks and priorities. Financing decisions for NbS, Thona rehabilitation, small-scale grey drainage improvements, and associated capacity-building activities are informed by community-led prioritization mechanisms and implemented through local institutions. The project adopts a co-management implementation model, where communities and local governments jointly plan, implement, operate, and maintain adaptation investments. Responsibilities for maintaining Thona networks, bunds, irrigation tanks, and riparian buffers are formalized through community–government arrangements, strengthening accountability, ownership, and sustainability beyond the project lifecycle. By embedding women, youth, and community-based organizations as active decision-makers rather than passive beneficiaries, the project ensures inclusive, flexible, and durable adaptation outcomes while contributing to national adaptation objectives.

135. The project will be implemented by the United Nations Human Settlements Programme (UN-Habitat), which will serve as the Implementing Entity (IE). UN-Habitat will provide overall project coordination and strategic oversight to ensure alignment with the Adaptation Fund's policies, EDA requirements, and national adaptation priorities. In addition, UN-Habitat will be responsible for fiduciary management, safeguards compliance, and results-based monitoring, ensuring transparent, accountable, and effective use of funds, while enabling national and local actors to lead decision-making and implementation on the ground.

Governance and Oversight – Project Steering Committee (PSC)

136. A Project Steering Committee (PSC) will be established at national level to provide strategic oversight, policy direction, and performance review. It will comprise the Ministry of Environment, Batticaloa District Secretariat, Department of Irrigation, Disaster Management Centre (DMC), and the Provincial Commissioner of Local Government. The PSC will meet biannually to review progress, address strategic issues, and ensure alignment with national adaptation priorities.

137. At district level, a District Project Management Unit (DPMU) will be established within the Batticaloa District Secretariat as the operational coordination platform for implementation. It will include relevant technical agencies, LAs, and nominated representatives from community institutions such as VDMCs, Farmer Organizations, and Thona Co-management Committees, ensuring direct linkage between field implementation and community priorities.

138. Consistent with LLA principles, a District Multi-Stakeholder Advisory Group (DMSAG) will be established, comprising representatives from VDMCs, Farmer Organizations, CBOs, women's groups, indigenous communities, youth, civil society, and technical agencies. The DMSAG will meet prior to each quarterly district coordination session to provide community feedback, identify risks, and recommend adaptive actions. The DMSAG feeds community priorities into the DPMU, which consolidates and integrates them into implementation planning and coordination. Key issues requiring strategic direction are escalated from the DPMU to the PSC, while PSC decisions are communicated back through the DPMU to local institutions. This establishes a continuous two-way feedback loop between community, district, and national levels, ensuring coordinated implementation, transparency, and adaptive decision-making throughout the project lifecycle.

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Alignment of the Project with the Results Framework of the Adaptation Fund

139. The proposed project's overall and specific objectives, as well as the anticipated project outcomes align closely with several Fund outcomes (2, 3, and 5) and outputs (2.1,3.2 and 5.1). Table 17 cross references the objectives and outcomes of the proposed project to the respective fund outcome and output, including the relevant project and fund indicators and the corresponding amount of funding requested.

Table 20 Project Alignment with Results Framework of Adaptation Fund

Project Outcome(s)	Project Outcome Indicator(s)	Fund Outcome	Fund Outcome Indicator	Grant Amount (USD)
Outcome 1: Enhanced community resilience, reduce the vulnerability of human and ecosystem health and economy to climate change impacts and extreme weather events through restoration of ecosystem functions and local hydrological connectivity	Indicator 1.1: No. and type of natural resource assets improved and maintained to reduce flood and drought risk Indicator 1.2: Number of people (sex and age disaggregated) benefiting from reduced flood, drought, and salinity impacts due to restored ecosystem services.	Outcome 5: Increased ecosystem resilience in response to climate change and variability induced stress	Indicator 5 (Core Indicator 4): Ecosystems and natural resources brought under protection, restoration, or improved management in response to climate variability and change [# of hectares, disaggregated by type of ecosystem / natural resource area and by protection, restoration, and management]	3,600,000
Outcome 2. Improved adaptive response capacity of communities and local government through integrated hydrological monitoring, forecasting, and climate information systems.	2.1: Number of institutions (LAs, district agencies) using climate and hydrological information for planning and emergency response. 2.2- Number of operational climate information and early warning tools (gauges, models, DSS/dashboard) used by target institutions and communities for flood and weather risk management.	Outcome 2: Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic & environmental losses	Indicator 2: Institutions with strengthened capacity to understand and better address climate risks and resilience	345,507
Outcome 3: Communities and sub-national institutions are empowered to plan, implement, manage, and monitor climate adaptation interventions for long-term resilience.	3.1: No. of VDMC (including sex disaggregated data on participation) and women-led organizations capacitated to minimize community exposure to climate change induced extreme flood events 3.2. No of local governments supported to implement and monitor adaptation activities 3.3 Number of local government areas where land use plans incorporate protection and management of Thona drainage networks. 3.4 Number of people, disaggregated by sex and vulnerable group, with strengthened awareness of climate risks and appropriate adaptation actions.	Outcome 3: Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level	Indicator 3A: People with strengthened awareness of climate change risks and how to better address them [# of people, disaggregated by sex, by vulnerable groups, and by sector]	225,000
Total outcome level grant amount				**4,170,507**
Project Outputs	**Project Output Indicator(s)**	**Fund Output**	**Fund Output Indicator**	**Grant Amount (USD)**

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1.1 Hydrological connectivity and climate-resilient drainage systems restored	1.1.1- No. of Thonas restored 1.1.2- No. of Km of drainage restored 1.1.3- No. of culverts/bridges restored	Output 5.1: Vulnerable ecosystem services and natural resource assets strengthened in response to climate change impacts, including variability	Output 5.1: Ecosystems and natural resources targeted by activities to improve protection, restoration, and/or management [# of resources, disaggregated by type of ecosystem / natural resource area and by protection, restoration, and management]	**2,700,000**
1.2 Ecosystem-based adaptation measures implemented to strengthen natural flood regulation and water security.	1.2.1- No. of EbA measures implemented 1.2.2- No. of households directly benefitting from EbA	Output 5.1: Vulnerable ecosystem services and natural resource assets strengthened in response to climate change impacts, including variability	Output 5.1: Ecosystems and natural resources targeted by activities to improve protection, restoration, and/or management [# of resources, disaggregated by type of ecosystem / natural resource area and by protection, restoration, and management]	**900,000**
2.1 Community-based hydrological monitoring and climate information systems established.	2.1.1- No. of rain gauges established 2.1.2- No. of people directly benefiting from risk management 2.1.3-No. of institutions supported to use hydrological and climate information for planning and emergency response.	Output 2.1: Strengthened capacity of institutions to understand and better address climate risks	Indicator 2.1: Institutions supported to strengthen capacity to understand and address climate risks and resilience [# of institutions, disaggregated by scale, by sector, and by type of institution]	**170,000**
2.2 A river–lagoon flood forecasting model and multi-agency coordination platform established and operational	2.2.1- No. of flood forecasting systems established and operational 2.2.2 No. of institutions using flood forecasting information for planning and emergency response.	Output 2.1: Strengthened capacity of institutions to understand and better address climate risks	Indicator 2.1: Institutions supported to strengthen capacity to understand and address climate risks and resilience [# of institutions, disaggregated by scale, by sector, and by type of institution]	**175,507**
3.1 Community institutions strengthened for locally led adaptation and disaster preparedness.	3.1.1- No of women-led disaster response groups strengthened 3.1.2- % of women directly benefitting 3.1.3- %. of youth directly benefitting 3.1.4 Number of people participating in climate-risk awareness and disaster-preparedness activities, disaggregated by sex and vulnerable group.	Output 3.1: Targeted population groups participating in adaptation and risk reduction awareness activities	Indicator 3.1: People participating in activities to improve awareness of climate risks and how to address them [# of people, disaggregated by sex and by vulnerable groups]	**135,000**
3.2 Climate-responsive planning and co-management systems established in Batticaloa Municipal Council and two Urban Councils, integrating Thona network management into local planning, operation, and maintenance systems	3.2.1- No. of government officials and community members benefitting from climate responsive planning and co-management 3.2.2 Number of local institutions and/or communities participating in decision-making on the definition, prioritization, design and implementation of adaptation solutions.	Output 3.3: Increased ownership of adaptation and climate risk reduction processes	Indicator 3.3: Number of local institutions and/ or communities responsible for decision-making over how adaptation solutions are defined, prioritized, designed, and/or implemented [# of local institutions and/or communities, disaggregated by institutions and communities]	**45,000**
3.3 One policy review, three knowledge products, and practical guidance on climate-resilient settlement planning prepared and disseminated to support replication and integration into district and local government planning processes	3.3.1 No. of climate resilience knowledge products/tools developed and shared; 3.3.2 No. of government planners and technical officials supported to use the knowledge products/tools.	Output 3.2: Strengthened capacity of national and subnational stakeholders and entities to capture and disseminate knowledge and learning	Indicator 3.2: Climate resilience knowledge products and/or tools developed and shared with stakeholders [# of products/tools, by sector]	**45,000**
Total output level grant amount				**4,170,507**

[1] The AF utilized OECD/DAC terminology for its results framework. Project proponents may use different terminology but the overall principle should still apply

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PART IV: ENDORSEMENT BY GOVERNMENT AND CERTIFICATION BY THE IMPLEMENTING ENTITY

A. Record of endorsement on behalf of the government[48]

(Enter Name, Position, Ministry) *Mr. K.R. Uduwawala* *Secretary* *Ministry of Environment* *No. 416/C/1 "Sobadam Piyasa" Robert Gunawardhana Mawatha, Battarmulla* *Sri Lanka* *Tel: +94 112034100 Fax: +94 11 287 944* *Email: info@env.gov.lk;* *Alternate emails: sec@env.gov.lk;*	Date*: (02.09.2026)*

B. Implementing Entity certification



Raf Tuts
Director, Global Solutions Division
UN-Habitat

Date: *February 9, 2026*	Tel. and email: +254-20-762-3736 Email: raf.tuts@un.org
Project Contact Person: Odicea Angelo Barrios, Programme Management Officer, Human Settlements, UN-Habitat Regional Office for Asia and the Pacific	
Tel. And Email: (81-92) 724-7121 And Email: odicea.angelobarrios1@un.org	

[48] Each Party shall designate and communicate to the secretariat the authority that will endorse on behalf of the national government the projects and programmes proposed by the implementing entities.

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சுற்றாடல் அமைச்சு
Ministry of Environment

"සොබාදම් පියස", අංක 416/සී/1, රොබට් ගුණවර්ධන මාවත, බත්තරමුල්ල, ශ්‍රී ලංකාව.
"சொபாதம் பியச", இல. 416/சீ/1, ரொபர்ட் குணவர்தன மாவத்தை, பத்தரமுல்லை, இலங்கை.
"Sobadam Piyasa", No. 416/C/1, Robert Gunawardana Mawatha, Battaramulla, Sri Lanka.

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මගේ අංකය / எனது இல / My No: Env/CC/04/04/02/01 – LLA Un Habitat

ඔබේ අංකය / உமது இல / Your No:

දිනය / திகதி / Date: 09.02.2026

The Chairman
The Adaptation Fund Board
c/o Adaptation Fund Board Secretariat

Letter of Endorsement by the Government of Sri Lanka
Locally Led Adaptation Project for Single Country
Batticaloa Climate Smart Adaptation & Resilience Through Ecosystem (B -CARE)

In my capacity as the designated authority for the Adaptation Fund in Sri Lanka, I confirm that the above- mentioned project is in accordance with the government's national priorities in implementing adaptation activities to reduce adverse impacts of, and risks, posed by climate change in Sri Lanka.

Accordingly, I am pleased to endorse the above project proposal with support from the Adaptation Fund. If approved, the project will be implemented by the country office of the United Nations Human Settlement Programme (UN Habitat) in Sri Lanka.

K. R. Uduwawala
Secretary

Revised PFG Submission Form[1] (additions in red)

Project Formulation Grant (PFG)

Submission Date:

Adaptation Fund Project ID:
Country/ies: Sri Lanka
Title of Project/Programme: **B**atticaloa **C**limate Smart **A**daptation & **R**esilience through **E**cosystems (**B-CARE**)

Type of IE (NIE/RIE/MIE): Multilateral Implementing Entity
Implementing Entity: United Nations Human Settlement Programme: **(**UN-Habitat)
Executing Entity/ies: UN-Habitat, Batticaloa Municipal Council (MC), Kattankudy Urban Council (UC) and Eravur Urban Council (UC),

A. Project Preparation Timeframe

Start date of PFG	01.12.2026
Completion date of PFG	31.05.2027

B. Proposed Project Preparation Activities ($)

List of Proposed Project Preparation Activities	Output of the PFG Activities	US$ Amount	Budget note[2] (linked to AF review comments)
Community-informed baseline assessments and participatory mapping	Survey and map *Thona* drainage networks, flood-prone zones, irrigation tanks, and bunds with active community participation	25,000	Combine GIS mapping, hydrological surveys, and participatory transect walks with communities Strengthens climate adaptation rationale (CR1–CR2) by integrating local knowledge with hydrological/ecosystem data; ensures interventions are

[1] As presented in AFB/PPRC.33/40 Annex 1.
[2] The proposal should include a detailed budget with budget notes indicating the break- down of costs at the activity level. It should also include a budget on the Implementing Entity management fee use.

			evidence-based and community-prioritized. (UN-Habitat to directly implement)
Participatory flood and drought mapping and scenario exercises	Communities map flood- and drought-prone areas, historical flood/drought events, and drainage/water retention bottlenecks; simplified visual flood and drought risk models co-developed with local authorities	20,000	Field mapping workshops, materials, local facilitation, community engagement; includes both flood and drought hazards. (CR4; supports systematic risk-informed planning and avoids maladaptation (UN-Habitat to directly implement)
Focus Group Discussions and participatory planning workshops	Community and multi-stakeholder workshops to review findings, validate priorities, and co-design adaptation interventions, defining roles of VDMCs, farmer groups, women-led committees	12,000	Convene VDMCs, farmer groups, and women-led committees to define roles in prioritization, budgeting, and monitoring. Builds local ownership, ensures interventions meet community needs, and enables consensus-driven decision-making. (CR7–CR8, CAR2); (Implemented by MC and UCs)
Gender and Environmental/Social Risk Analyses	Conduct analyses and develop Environmental and Social Management Plan (ESMP) and Gender Action Plan (GAP)	10,000	Conduct targeted interviews and surveys with women, Indigenous groups, disabled persons, and marginalized households. Ensures compliance with Adaptation Fund Environmental & Social Policy and mainstreams gender considerations in project design. (CR9, CAR4); (UN-Habitat to directly implement)

Identification of project indicators and development of M&E plan	Draft M&E framework and indicators for measuring project outcomes and progress	15,000	Provides tools for results tracking and accountability at community and project level (UN-Habitat to directly implement)
Assessing capacity of executing partners	Review and assessment of potential local executing entities	10,000	Review institutional structures, financial management systems, and technical capacity of local entities. Ensures local actors can manage funds and sustain interventions (CR7–CR8); supports long-term governance (UN-Habitat to directly implement)
Travel and coordination support for field engagement	Transport and logistics for project team to engage with communities and local authorities during assessments and workshops	20,000	Organize field visits, consultations, and validation workshops; document proceedings.
Technical support for proposal development	Consultant synthesizes community inputs and technical assessments into the proposal and produces accessible knowledge products	20,000	Engage consultant to synthesize scientific data, community inputs, and Indigenous knowledge into accessible formats. (UN-Habitat to directly implement)
		132,000	
Management fee- 8.5%		11,220	
Total Project Formulation Grant		**143,220**	

Please describe below each of the PFG activities and provide justifications for their need and for the amount of funding required:

For LLA Projects only:

If requesting additional funding for LLA projects to enable devolving decision making to the local level, please specify the activities that would directly serve to enable devolving decision making to the lowest

appropriate level and enable local actors to make informed decisions on how adaptation actions are defined, prioritized, designed, and implemented:

Please provide justifications for their need and for the amount of additional funding required:

C. Implementing Entity

This request has been prepared in accordance with the Adaptation Fund Board's procedures and meets the Adaptation Fund's criteria for project identification and formulation

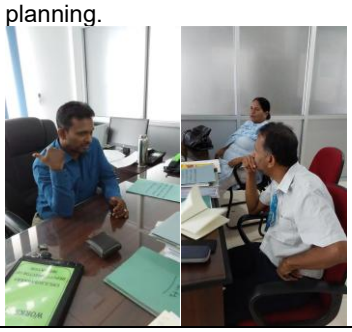
Implementing Entity Coordinator, IE Name	Signature	Date (Month, day, year)	Project Contact Person	Telephone	Email Address
Raf Tuts			Odicea Angelo Barrios	(81-92) 724-7121	odicea.angelobarrios1@un.org

Batticaloa Climate Smart Adaptation & Resilience through Ecosystems (B-CARE)

Initial Consultation Report

Stakeholders and Communities Engaged in Consultations

No	Name of People Participated	Date of Meeting	Key Points Agreed/ Discussed	How inputs informed project design
01	**Provincial Irrigation (Chenkalady): Eng. ASM Irsath,** Ms. Aziza (Deputy Country Programme Manager - DCPM, UN-Habitat) Eng. Aleem (National Project Manager - NPM, UN-Habitat)	17/06/2025	● Improve spillways of 4 medium-sized tanks to enhance climate resilience and reduce downstream flood risk ● Incorporate tanks into broader flood adaptation strategy. 	Recommendations on spillway improvements and hydrological connectivity informed Activities 1.1.1.1 and 1.1.1.6, prioritising rehabilitation of strategically selected irrigation tanks as part of ecosystem-based restoration of the micro-hydrological (lagoon–Thona) system, rather than stand-alone infrastructure investments
02	**Eravur Urban Council: Chairman M.S. Naleem,** Ms. Aziza (DCPM, UN-Habitat) Eng. Aleem (NPM, UN-Habitat)	17/06/2025	● Restore Silted Thona system to reduce flood risks ● Master plan implementation expected to benefit approximately 18,500 families ● Ward offices with focal officers established to improve community responsiveness. ● Letter dated 07.07.2025 endorsing proposed B-CARE project and nominating focal point	Strong emphasis on restoring silted Thona networks informed Activities 1.1.1.2 and 1.1.1.3, while ward-level coordination mechanisms informed Activity 3.1.1.4 on community co-management, participatory implementation, and monitoring

03	**Women's Self-Help Group:** President and 6 members Ms. Aziza (DCPM, UN-Habitat) Eng. Aleem (NPM, UN-Habitat) Razeen (UN-Habitat)	18/06/2025	• Strengthen women's role in flood response and water management • Reactivate village disaster committees • Improve communication during evacuations • Promote ecotourism and community-based resilience  initiatives.	Component 3 (Activities 3.1.1.4 and 3.1.1.6 strengthened to establish women-led early warning groups, strengthen Village Disaster Management Committees (VDMCs), promote women's participation in Thona co-management and ensure gender-responsive community capacity building. Community consultations also highlighted the need for livelihood opportunities linked to ecosystem restoration to be further developed during full proposal preparation.
04	**Deputy Director of Provincial Irrigation:** Eng. S. Subaharan Ms. Aziza (DCPM, UN-Habitat) Eng. Aleem (NPM, UN-Habitat) Mr. Razeen (UN-Habitat)	18/06/2025	• Establish River Basin and Lagoon Task Forces • Enhance coordination between upstream and downstream flood management • Restore irrigation tanks • Engage communities in evacuation planning.  •	The proposal incorporated integrated watershed management, hydrological planning, and coordination mechanisms linking upstream and downstream interventions. Community-based evacuation planning was integrated into Component 2 (Activities 2.1.1.2 and 2.1.1.1.4).
05	**Urban Council of Kattankudy:** SHM Asfar (Chairman) and 13 Council Members Ms. Aziza (DCPM, UN-Habitat) Eng. Aleem (NPM, UN-Habitat) Mr. Razeen (UN-Habitat)	18/06/2025	• Revise and implement drainage master plan • Prioritize restoration of Thona and stormwater systems • Develop early warning systems • Strengthen urban flood mitigation and funding mobilization. • Letter dated 07.07.2025 endorsing proposed B-CARE project. 	Confirmed prioritization of Thona restoration, climate-resilient drainage planning and localized early warning systems under Components 1 (Activities (1.1.1.2,1.1.1.3,1.1.1.4 and 3 (3.1.1.3 and3,1,1,4)

06	**Director of Irrigation – Batticaloa:** Eng. M.I.M.Z. Ibrahim Ms. Aziza (DCPM, UN-Habitat) Eng. Aleem (NPM, UN-Habitat) Mr. Razeen (UN-Habitat)	18/06/2025	● Prioritize tank and bund upgrades (e.g., Kithul Tank) ● Renovate Munthani Aru basin and abandoned Thonas ● Conduct hydrological studies ● Develop evacuation infrastructure in Kiran and Santhiveli ● Consider implications of Mundeni Aru project – a loan extended by AFD which has been under development since 2017.	Hydrological modelling and watershed assessments were incorporated before final prioritization of investments. Existing and planned investments (including AFD-supported initiatives) were reviewed to avoid duplication and ensure complementarity. (component 2)
07	**Stakeholder Consultation Meeting (chaired by GA Batticaloa)**: Government Agent – Batticaloa, Department of Irrigation (Director and Provincial Deputy Director), Department of Agrarian Services, District Planning Unit and Assistant Commissioner Local Government (ACLG), Divisional Secretariats (Kiran, Vavunathivu, Oddamavadi), Disaster Management Centre (DMC), Pradeshiya Sabha Chairpersons, Chamber of Commerce, Farmer Organizations, Civil Society Organizations, Academia (University of Moratuwa, Eastern University), International partners - online (ICHARM Japan), and UN-Habitat (Ms. Aziza, Eng. Aleem)	18/06/2025	● Finalize concept note for submission to Adaptation Fund by August 2025 ● Select 40 Thonas and 15 tanks for intervention ● Construction of a saltwater intrusion prevention bund to mitigate the effects of rising lagoon water levels ● Emphasize early warning systems, equitable water access, strong inter agency coordination, and livelihood restoration. ● Letters dated 09.07.2025 and 15.10.2025 from GA recommending priority consideration and referencing consent of Chairman District Coordination Committee and Minister of Industry and Enterprise Development for the B-CARE proposal as a timely, holistic and transformative step towards long-term climate resilience. 	The cross-sectoral consultation validated an integrated ecosystem-based adaptation approach combining restoration of Thona networks, rehabilitation of irrigation tanks, saltwater intrusion management, hydrological forecasting, and community governance, informing Components 1, 2 and 3. While stakeholders initially identified approximately 40 Thonas and 15 irrigation tanks for intervention, these were subsequently re-prioritised through technical assessment, climate-risk analysis, and available financing, resulting in the selection of 30 Thonas and 10 strategically important tanks. Proposals outside the Adaptation Fund's scope (e.g. major infrastructure investments) were referred to relevant government programmes. programmes.

08	**Vavunatheevu DS and PS:** Mrs. N. Sathyananthy (Divisional Secretary) Chairman, Pradeshiya Sabha Ms. Aziza (DCPM, UN-Habitat) Eng. Aleem (NPM, UN-Habitat) Razeen (UN-Habitat)	19/06/2025	● Prioritize water supply project for 3,500 families ● Establish treatment plant and distribution system ● Coordinate with National Water Supply & Drainage Board for connections ● Improve irrigation system to support 15,000 acres of cultivation. 	The proposed water supply scheme and treatment plant were identified as important development priorities but were not included because they fall outside the adaptation scope and financing envelope of the project. However, concerns regarding water security informed inclusion of irrigation tank rehabilitation, watershed restoration and improved water management measures that contribute to climate resilience were included.
09	**Ministry of Rural Development, Social Security & Community Empowerment:** Minister Upali Pannilage and Secretary (Acting) A.H.L.D. Gamini Wijesinghe **UN-Habitat:** Ms Harshini Halangode (Country Programme Manager), Ms Aziza Usoof (DCPM); Eng. Aleem (NPM)	28.07.2025	● Endorsement of B-CARE proposal – Letter dated 20.07.2025	Reinforced the project's locally led adaptation approach and strengthened institutional ownership for implementation through local government and community organizations.
10	**Ministry of Urban Development, Construction and Housing:** Minister Anura Karunathilaka; Secretary Ranjith Ariyarathna **UN-Habitat:** Ms Harshini Halangode (Country Programme Manager), Mr Laxman Perera (Snr Advisor), Ms Aziza Usoof (DCPM); Eng. Aleem (NPM)		● Endorsement of B-CARE proposal – Letter dated 13.08.2025	Component 3 expanded to include identification of planning and regulatory gaps, climate-resilient land-use planning and preparation of knowledge products to support replication.
11	**Ministry of Finance – National Planning Department:** **UN-Habitat:** Ms Harshini Halangode (Country Programme Manager), Eng. Mohamed Aleem (NPM), Ms Tameez Bohoran (Project Architect)		● Confirmation that activities are not duplicated and request for initiation of activities. Email dated 22.10.2025	Confirmed alignment with national development priorities and informed the preparation of complementarity with ongoing projects and programmes.

Batticaloa **C**limate Smart **A**daptation & **R**esilience through **E**cosystems (**B-CARE**)
Initial Gender Analysis

Gender Vulnerability

52.04% of the population of Batticaloa District in 2024 are women[1], while 71.3% live in rural settlements. Moreover, the district records the highest number of female headed households[2], a lasting impact of the civil war[3]. During extreme climate events, women are one of the most vulnerable segments of society to be impacted[4].

The female labour force participation rate is low (28.7%) in Batticaloa District5, as most women carry out unpaid domestic work within their homes, especially in the rural areas. During stakeholder consultations, women stated that they are excluded from disaster management, and that early warning messages are received by men who are often away from home on work. Therefore, there is a delay in receiving early warning alerts resulting in insufficient time for women to prepare for evacuation leaving them at further risk of death and injury.

Women face unique challenges due to their primary role as caretakers of the households. When disasters occur, women face the extra burden of having to care for the family. In most households, women fetch water from the well or tanks, particularly when pipe borne water services are not available. During the drought period, water shortages in many areas (even for shorter dry periods) is a common phenomenon6 with people having to rely on emergency water distribution. Therefore, women and girls are compelled to fetch water by travelling long distances, even at night, exposing themselves to further climate hazards or other sources of insecurity, and also spending time away from economically or educationally productive and/or care-giving activities. This vulnerability is even more acute among indigenous women, such as those in the Muruthanai GN Division, where the Pontukal Senai causeway contributes to severe and recurrent flooding. Over 10,500 acres of paddy land are regularly inundated, and approximately 550 families - many from indigenous backgrounds - are forced to relocate to evacuation centers for up to 30 days during each flood.

Batticaloa District has recorded 16.2% population below the official poverty line which is comparatively high in the country7. Approximately 30% of the households are engaged in agricultural activities as their main source of income in Batticaloa8 and over 45.5% of the district's land is used for agricultural activities9. Increased poverty among agricultural rural settlements of Batticaloa severely impact women as they are compelled to device coping mechanisms to meet the household's basic needs, including food10.

Addressing gender inequalities and actively engaging women in disaster preparedness and

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[1] District Population 2024, Department of Census, Sri Lanka

[2] FemaleHeadedHouseholdsBySector,ProvinceAndDistrict2016.pdf (2019)

[3] FemaleHeadedHouseholdsBySector,ProvinceAndDistrict2016.pdf (2019)

[4] https://www.iwmi.org/blogs/climate-change-and-a-national-economic-crisis-are-overworking-rural-women/

[5] LFS2023.pdf

[6] Climate Vulnerability Risk Assessment in Eastern Province and Guidance for Capacity Development of Local Governments on Assessing Climate Change Vulnerability, 2023, UNDP Sri Lanka.

[7] Household Income and Expenditure Survey, 2019, Department of Statistics, Sri Lanka.

[8] Labour Force Survey Annual Bulletin-2021, Department of Census and Statistics, Sri Lanka

[9] Statistical Information – 2021, Ministry of Agriculture, Eastern Provincial Council, Sri Lanka

[10] There is no day that we don't have work or worry … We have to do the housework, and when there is no more money, we (the women) only have to think about what to do … It is not their worry (for the men) … Only we go into the kitchen so only we know what is there or not there … We need to find a way to manage right?
FGD participant in Batticaloa
https://www.iwmi.org/blogs/climate-change-and-a-national-economic-crisis-are-overworking-rural-women/

climate adaptation is essential to reduce their vulnerability and strengthen the resilience of households and communities in Batticaloa. By enabling women to co-lead planning and implementation, access resources, and make decisions, the project will transform how communities prepare for and respond to climate risks, ensuring locally owned and sustainable solutions.