Project Administration Manual

PUBLIC

Project Number: 57002-001 Loan Number: Loan 4531-MLD Grant Number 0988-MLD Grant Number 0989-MLD Grant Number 9244-MLD TA Number 10378-MLD October 2024

Republic of Maldives: Enhancing Climate Resilience and Food Security Project

ABBREVIATIONS

ADB – Asian Development Bank
EMR – environment monitoring report
FMA – financial management assessment
GRM – grievance redress mechanism

IA _ implementing agency

HAC – Hanimaadhoo Agriculture Center KCC – Kulhudhuffushi City Council MMS – Maldives Meteorological Service

MOAAW – Ministry of Agriculture and Animal Welfare

MOCCEE – Ministry of Climate Change, Environment and Energy

PAM – project administration manual
PIU – project implementation unit
PMU – project management unit
RFQ – request for quotation
SMR – social monitoring report
SOE – statement of expenditures
SPS – Safeguard Policy Statement

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Project Administration Manual Purpose and Process

The project administration manual (PAM) describes the essential administrative and management requirements to implement the project on time, within budget, and following the policies and procedures of the government and the Asian Development Bank (ADB). The PAM should reference all available templates and instructions either by linking to relevant URLs or by directly incorporating them in the PAM.

The purposes of the PAM are to (i) share the project status with ADB's and the government's project teams, (ii) identify the contact persons to facilitate communication and coordination between ADB and the government, and (iii) facilitate preparation of the project completion report. The PAM will be useful for new project members to understand the project status easily and communicate effectively with other members.

The Ministry of Finance (MOF), Ministry of Agriculture and Animal Welfare (MOAAW), Ministry of Climate Change, Environment and Energy (MOCCEE) are wholly responsible for implementing the ADB-financed project, as agreed jointly between the borrower and ADB, and following the policies and procedures of the government and ADB. ADB staff is responsible for supporting implementation, including monitoring compliance by MOF, MOAAW and MOCEE of their obligations and responsibilities for project implementation following ADB policies and procedures and the loan and grant agreements.

At loan and grant negotiations, the borrower and ADB shall agree to the PAM and ensure consistency with the loan and grant agreements. Such agreements shall be reflected in the minutes of the loan and grant negotiations. In case of any discrepancy or contradiction between the PAM and the loan and grant agreements, the provisions of the loan and grant agreements shall prevail.

After ADB Board approval of the project's report and recommendation of the President (RRP), changes in implementation arrangements are subject to agreement and approval pursuant to relevant government and ADB administrative procedures (including the project administration instructions) and upon such approval, they will be subsequently incorporated in the PAM.

I. PROJECT DESCRIPTION

- 1. The project will support Maldives' efforts to reduce the vulnerability of island communities to climate risks by (i) improving institutional and community capacities for climate change adaptation; (ii) implementing effective flood and coastal protection with nature-based solutions; (iii) introducing climate-smart technologies and practices in agri-food systems; and (iv) promoting climate adaptation businesses and services, and urban farming. Over the long term, the project will contribute to improving the country's climate and disaster resilience, and food and nutrition security, as outlined in its updated nationally determined contribution (NDC).¹
- 2. The project is aligned with the following impact: climate and disaster resilience and long-term food and nutrition security improved (footnote 1). It will have the following outcome: Vulnerability of island communities to climate risks reduced.² It is expected that the project will be instrumental in forging women empowerment approaches to adaptation and addressing inequality that may widen due to climate change through (i) investing in activities where women and youth can play major roles; and (ii) targeting women, youth, and vulnerable remote island communities in northern and southern regions (where climate impacts are most severe in the country).
- 3. Output 1: Institutional and community capacity for climate adaptation improved. To strengthen the climate resilience of Haa Dhaalu and Addu atolls, the project team will help improve climate and disaster risk-informed advisory and early warning systems by (i) installing a new radar system at Addu weather station; (ii) repairing the existing weather radar system in Malé; (iii) providing MMS with integrated data processing and analysis systems for real-time monitoring, forecasting, and early warning; (iv) piloting agro-climate advisories on selected agricultural islands; and (v) designing and delivering a capacity building program on weather monitoring, forecasting, and early warning and communication to encourage communities to adopt climate change adaptation measures. Community preparedness for managing extreme events will be strengthened through inclusive planning for disaster response and recovery, awareness raising of communities, and behavioral change campaigns. These activities will incorporate gender-responsive and inclusive elements.³
- 4. Output 2: Effective flood and coastal protection with nature-based solutions implemented. The project will implement infrastructure and nature-based solutions for pluvial flood mitigation, coastal protection, and mangrove restoration on Kulhudhuffushi Island, which is the most populous island in the northern region. Stormwater drainage and filtration systems, and nature-based solutions such as bioswales will be constructed for inland flood protection. Offshore and nearshore coastal protection structures will be improved to prevent overtopping and erosion. The island's long-term protection and resilience will be supported through the development of a drainage management plan and a mangrove restoration and management plan. The project team will reduce the climate and disaster risks of the island by (i) conducting environmental and hydraulic modeling studies, (ii) preparing detailed designs of pluvial flood and coastal protection investment subprojects, and (iii) carrying out integrated flood risk management measures through those investment subprojects. The output will include subprojects that cover (i) construction or upgrades of stormwater drainage infrastructure; (ii) coastal protection measures on the eastern

¹ Government of Maldives, Ministry of Environment. 2020. <u>Update of Nationally Determined Contribution of Maldives</u>. The document reflects the country's adaptation policy as supported by the Maldives Climate Emergency Act (09/2021) and Maldives Climate Change Policy Framework.

² The design and monitoring framework is in the Appendix 1.

³ For example, gender-responsive and inclusive training modules and materials on climate change adaptation, disaster response, and recovery planning will be designed; integrated in electronic communication tools and platforms of MMS, women's development committees (WDCs), and local councils; and made accessible to communities, particularly women, to advise on potential climate risks and adaptation measures.

shoreline; and (iii) nature-based solutions such as the rejuvenation of wetlands and urban greeneries to increase infiltration and flood retention capacity.

- 5. Output 3: Climate-smart technologies and practices in agri-food systems promoted. To overcome the constraints of limited topsoil and fresh water, the project will promote water-efficient and resilient urban farming, mainly in Haa Dhaalu and Addu atolls, through (i) the construction of a multipurpose building to house a training facility, a simple laboratory for soil and pathogen testing, and an office space for the Hanimaadhoo Agriculture Center (HAC); (ii) training programs, extension advisory services, and associated capacity building support for urban home gardeners, farmers, cooperatives, women's development committees (WDCs), civil society organizations (CSOs), and women and young agribusiness entrepreneurs; (iii) technical advice on preparing and implementing urban farming and agribusiness proposals, including the creation of market links and adoption of climate-smart horticultural technologies for better profit and income generation; and (iv) project management activities.
- 6. **Output 4: Climate adaptation businesses and services, and urban farming implemented.** The project will support the long-term growth of adaptation-related businesses by providing matching grants to trained beneficiaries of output 3 and other individuals; farmer groups; WDCs; CSOs; and micro, small, and medium-sized enterprises in Maldives. The grants will be awarded based on a set of qualification and selection criteria detailed in the project administration manual (PAM). The project team will (i) finalize the operational guidelines for the matching grants and launch the grant scheme; (ii) evaluate and approve grant proposals; and (iii) monitor the implementation of the grant-supported projects. SME Development Finance Corporation (SDFC), which is experienced in supporting the development of micro, small, and medium-sized enterprises with concessional credit lines, will administer the identification, evaluation, selection, and approval process of the grant proposals. The grants will finance the full cost of capital expenditures of eligible adaptation business proposals, particularly ones proposed by women and youth-led enterprises, and will be matched by beneficiaries' contributions that cover the operating costs.

II. IMPLEMENTATION PLANS

A. Project Readiness Activities

Table 1: Project Readiness Activities

Indicative Activities				2024	Responsible Agency/Government			
	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Advance contracting actions ^a								MOCCEE
Retroactive financing actions								MOCCEE
Establish PMU and complete								MOCCEE and MOAAW
staffing								
ADB Board approval								ADB
Loan and grant signing								ADB and MOF
Government legal opinion								MOF
provided								
Government budget inclusion								MOF
Loan and grant effectiveness		·						ADB

ADB = Asian Development Bank, MOAAW = Ministry of Agriculture and Animal Welfare, MOCCEE = Ministry of Climate Change, Environment and Energy, MOF = Ministry of Finance, PMU = project management unit.

Includes preparation and advertisement of bidding documents for G01 - Design, Supply and Installation of Radar System; G03 - Double cab vehicles; G04 and CW01 - Malé Radar Refurbishment; CW02 - Design-build upgrading of HAC facilities; CS01 - Construction Supervision Consultant.

Table 2: Advance Actions

Date	Project	•										
	Processing Milestone (ADB)	PMU Consultants	Output 1	Output 2 ^a	Output 3	Output 4						
May-Jun 2024	Fact-finding mission: prepare MOU and preliminary PAM	Prepare TORs and obtain required approvals	Prepare bidding documents for goods and works	Prepare TOR for modelling and design studies	Prepare bidding documents for HAC design and construction; and	Prepare and approve matching grant						
Jul-Aug 2024	RRP review and clearance				RFQ for vehicles	operational guidelines						
Sep 2024	RRP and loan agreement sent to the Government of Maldives	Appoint project Director		Advertise CSRN for modelling and design firm selection								
	Loan negotiations											
Oct 2024	Management approval		Invite bids for radar system packages	Issue RFP	Invite bids for HAC; issue RFQ for vehicles							
Nov 2024	Board approval	Call for EOI for key government-	-	Complete technical	Evaluate quotes for vehicles package;	-						
	Loan signing	contracted staff		proposal evaluation	approve contract award							
Dec 2024	Loan effectiveness	Onboard PMU staff	Submit technical evaluation	Open and evaluate financial proposals	Submit technical evaluation for HAC package							
Jan 2025	Inception mission		Open and evaluate financial proposals; submit financial evaluation	Award contract; firm/s to commence services	Open and evaluate financial proposals Submit financial evaluation	Initiate grant scheme orientation workshops						

ADB = Asian Development Bank, EOI = expression of interest, HAC = Hanimaadhoo Agriculture Centre, PAM = Project Administration Manual, RFP = Request for Proposals, RRP = report and recommendation of the President, RFQ = request for quotes.

a Environmental and hydraulic modeling studies are to be carried out under the attached technical assistance; ADB will recruit the

Source: ADB

consultants.

Table 3: Overall Project Implementation Plan

		2024 2025					2026 2027									2028				2029				2030			
No	Activities	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	Institutional and community cap	acity	on c	limate	adap	tatio	n im	orove	d																		
1.1	Procure civil works to install weather radar system in Addu (Q4 2024–Q2 2025)																										
1.2	Undertake civil works to install weather radar system in Addu (Q2 2025–Q3 2027)																										
	Procure civil works to repair the existing weather radar system in Male (Q4 2024–Q2 2025)																										
	Undertake civil works to repair the existing weather radar system in Male (Q2 2025–Q4 2026)																										
1.5	Design and deliver a capacity building program to strengthen the capacity of MMS on weather monitoring, forecasting and early warning (Q4 2026–Q4 2029)																										
2.	Output 2: Effective flood and coa	astal	prote	ction	with	natur	e-bas	sed s	olutio	ons ir	mpler	nente	d														
2.1	Conduct environmental and hydraulic modeling studies on marine, coastal and groundwater hydrology (Q3 2025–Q1 2026)																										
2.2	Conduct detailed designs of pluvial flood and coastal protection investments undertaken (Q1–Q3 2026)																										
2.3	Procure and award works for the selected subprojects (Q4 2026–Q4 2027)																										
	Carry out flood prevention and coastal management civil works (Q4 2027–Q3 2030)																										
3.	Output 3: Climate-smart technol	ogies	and	pract	ices i	n agr	i-foo	d sys	tem p	orom	oted																
3.1	Design and procure construction of a multipurpose building to house a training facility, a simple lab for soil and pathogen testing, and an office space for HAC (Q4 2025–Q4 2026)																										

	2024 2025				2026 2027									2028					2029				2030				
No	Activities	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
3.2	Carry out training programs, extension advisory and associated capacity building support for urban home gardeners, farmers, cooperatives, women development committee, civil societies, and women and young agribusiness entrepreneurs; (Q2 2025–Q4 2030)																										
	Provide technical advisory for urban farming and agribusiness proposal development and implementation, including market linkage development and adoption of climate-smart horticultural technologies for increased profit and income generation (Q2 2025–Q2 2030)																										
4.	Climate adaptation businesses a	and s	ervice	es, an	d urb	an fa	rming	g imp	leme	nted																	
	Finalize the matching grant operational guidelines (Q3–Q4 2025)																										
4.2	Evaluate and approve grant proposals (Q1 2026–Q4 2029)																										
	Monitor the implementation of the matching grant-supported projects (Q4 2026–Q4 2030)																										
Proj	ect Management Activities																										
for Ir	blish PMU, the Project Committee hter-Ministerial coordination and uit PMU staff (Q1 2025)																										
imple Q1 2																											
supe 2026																											
Q4 2																											
semi	ement the EMP and submit annual environmental monitoring rts to ADB (2025–2030)																										

6

	2024 2025					202	26			202	27			202	28		2029				2030					
No. Activities	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Implement the gender action plan (2025–2030)																										
Prepare quarterly and annual progress reports (2025–2030)																										
Semiannual and midterm reviews																			•							

DMF = design and monitoring framework, EMP = Environmental Management Plan, HAC = Hanimaadhoo Agriculture Centre, PIC = project implementation consultants, Q = quarter.

Source: Asian Development Bank.

III. PROJECT MANAGEMENT ARRANGEMENTS

A. Project Implementation Organizations: Roles and Responsibilities

Table 4: Project Management Roles and Responsibilities

	Project Management Roles and Responsibilities
Project Implementation Organization	Management Roles and Responsibilities
Executing agency Ministry of Finance (MOF)	 Guide and monitor overall project execution, responsible for timely execution of the project Provide financial oversight; ensure flow of funds to the implementing agency and timely availability of counterpart funding; ensure adequate budget for successful implementation of the project and operation and maintenance of the facilities Monitor compliance with project legal agreements Open advance accounts for the project Responsible for approving procurement for contracts above MVR 2.5 million; reviews and coordinates evaluation of bids for works, goods, and consultant services Reviews and signs withdrawal applications before submitting to Asian Development Bank (ADB)
Project steering committee (Chair: Minister, Ministry of Climate Change, Environment and Energy or senior official designated by the Minister [MOCCEE]) ^a	 Provide policy direction to facilitate project implementation Advise on and facilitate resolution of technical issues, as required Meet quarterly (or as needed) to review project performance and resolve issues Ensure collaboration among central level agencies
Ministry of Climate Change, Environment and Energy – implementing agency 1	 Overall day-to-day project management, monitoring, and evaluation Establish PMU Procure goods and works below MVR 5 million Ensure timely decisions for efficient procurement and contract management Sign all procurement contracts under the project Prepare withdrawal applications Maintain project accounts and complete loan financial records Prepare financial statements and ensure timely conduct of audit Sign MOU with island councils targeted under the different outputs Provide technical and institutional capacity building support Report to ADB and issue quarterly and annual progress reports on project implementation Ensure system for sustainable operation and maintenance (O&M) of project facilities Coordinate with ADB and other development partners to synchronize, plan and mobilize resources for climate resilience and food security
Ministry of Agriculture and Animal Welfare – implementing agency 2	 Support day-to-day project management, monitoring, and evaluation pertaining to Output 3 and partially for Output 4 (agriculture-related grants) Support PMU in procurement of goods and works under Output 3 Provide technical and institutional capacity building support linked to Output 3 Support PMU project progress reports and all other reporting Ensure system for sustainable operation and maintenance (O&M) of project facilities supported under Output 3

Project Implementation Organization	Management Roles and Responsibilities
Maldives Meteorological Service	 Support day-to-day project management, monitoring, and evaluation under Output 1 Support PMU in procurement of goods and works under Output 1 Provide technical and institutional capacity building support linked to Output 1 Support PMU with preparing project progress reports and other reports Ensure system for sustainable operation and maintenance (O&M) of project facilities supported under Output 1
PMU in MOCCEE	 Responsible for overall project management, implementation and monitoring Monitor and ensure the compliance of covenants, particularly timely submission of audited project accounts and compliance with safeguard requirements Maintain project accounts and project financial records Review the reports submitted by project implementation consultants with respect to detailed design, costs, safeguards, financial, economic, and social viability Prepare, with the support of individual technical experts, bidding documents, request for proposals, and bid/proposal evaluation reports Serve as point of contact of ADB, maintain project documents, and submit timely reports (quarterly progress reports and project completion report) to ADB by consolidating relevant inputs from the other project implementation agencies Consolidate expenditures and prepare withdrawal applications for direct payment, reimbursement and use of advance accounts Open and manage advance accounts Open and manage advance accounts Organize project orientation for participating island councils by elaborating scope of the project Establish and maintain project website by disclosing progress reports, safeguard monitoring reports and design reports Collect supporting documents and submit withdrawal applications to ADB via MOF
SME Development Finance Corporation ^b	 Receive, screen and review grant applications under Output 4 Submit screened applications, including all documents, to the MOCCEE grant committee Receive invoices, bank statements and physical outputs from grantees
Kulhudhuffushi City Council	 Provide local coordination and technical support to all activities and subprojects under Output 2 Be responsible for management and O&M of infrastructure Co-lead the Output 2 activities on knowledge management on drainage management plan, mangrove management plan and related activities
ADB	 Conduct project review missions, midterm review mission and project completion review mission to assess implementation progress of all outputs, compliance with loan and grant covenants including actions required in terms of safeguards (environmental impacts and social mitigation measures applicable); timeliness of budgetary allocations and counterpart funding; project expenditures; progress with procurement and disbursement; and the likelihood of attaining the project's immediate development objective Post on ADB website updated project information, audit reports, and safeguards documents as per ADB's disclosure policy Review submissions for procurement of goods, equipment, works and services, and provide comments and no objection on the submissions

Project Implementation Organization		Management Roles and Responsibilities
	•	Audit Statement of Expenditure on sampling basis
	•	Process withdrawal applications for loan and grant disbursements

ADB = Asian Development Bank, MOAAW = Ministry of Agriculture and Animal Welfare, MOCCEE = Ministry of Climate Change, Environment and Energy, MOF = Ministry of Finance, PMU = project management unit.

- ^a The Project Steering Committee is composed of representatives from MOF, Environmental Protection Agency, MOAAW, MOECC, SME Development Finance Corporation.
- ^b Subject to execution of a memorandum of understanding. Source: ADB.
- 7. An attached technical assistance is proposed to support (i) project implementation through capacity development of implementing agencies on procurement; (ii) a modeling study to estimate dynamic changes in coastal ecosystem, identify the most effective set of flood mitigation investments in an island landscape, and better prepare for future climate change under Output 2; and (iii) development and implementation of a matching grant scheme, including evaluation of functions and capacity of the SME Development Finance Corporation (SDFC) for SME financing under Output 4. The TA will facilitate development of a blended finance product to support increased climate investments of SMEs under Output 4. The TA financing amount is \$1.5 million, of which (i) \$0.5 million will be financed on a grant basis by ADB's Technical Assistance Special Fund (TASF 7), and (ii) \$1.0 million will be financed on a grant basis by the Ocean Resilience and Coastal Adaptation Trust Fund (ORCATF). The TA is expected to be implemented over the 3 years and administered by ADB. The government will provide counterpart support in the form of counterpart staff, office, office supplies, secretarial assistance, and other in-kind contributions.
- 8. The project will engage project implementation consultants, construction supervision consultants, and technical consultants who will be tasked with the following roles and responsibilities (Table 5).

Table 5: Consultant Roles and Responsibilities

Consultant	Primary Roles and Responsibilities
Project implementation consultants	Support the executing and the implementing agencies in (i) planning and coordination of project implementation; (ii) project management and control, including administration; (iii) procurement, including contract management; (iv) troubleshooting of project implementation problems; (v) progress reporting; (vi) management of project management software, such as Microsoft Project or its equivalent; (vii) training of key staff of the executing and the implementing agencies on statistical data processing and visualization; and (viii) various capacity development activities, such as preparing an operations manual and standard operating procedure
Construction supervision consultants	Manage and supervise the construction of all civil works under the project, and ensure compliance with the Maldivian regulations (National and Local) including Construction Law, Building Code, Structural, Electrical, Mechanical, Sanitary and Social & Environmental and Occupational Health and Safety (OHS), and requirements ADB's Safeguard Policy Statement.

Source: Asian Development Bank.

B. Key Persons Involved in Implementation

Executing Agency

Ministry of Finance Officer's Name: Dr. Mohamed Yammai

Position: Chief Resource Mobilization Executive

Telephone No.: +960-3349200

Email address: mohamed.yammai@finance.gov.mv

Office address: Ameenee Magu, Block 379, Male', Republic of

Maldives

Ministry of Climate Change, Environment and Energy Officer's Name: Mr. Ajwad Musthafa

Position: Permanent Secretary and Project Director Email address: ajwad.musthafa@environment.gov.mv Office address: Green Building, Handhuvaree Hingun,

Maafannu, Male', 20392, Republic of Maldives

Ministry of Agriculture and Animal

Welfare

Officer's Name: TBC

Position: Email address: Office address:

Asian Development Bank

Emerging Areas Team, Food, Nature, and Rural Development Sector Office

(SG-AFNR)

Takeshi Ueda Director

Telephone No.: +63 2 8632 6973 E-mail address: taueda@adb.org

Project Team Leader Michiko Katagami

Principal Natural Resource and Agriculture Specialist

Telephone No.: +63 2 8632 6834 E-mail address: mkatagami@adb.org

Co-Project Team Leader Kamal Dahanayake

Senior Project Officer (Urban and Water Supply-Sanitation)

Telephone No.: +94777286401

E-mail address: kdahanayake@adb.org

Implementation Team Mikael Andersson, Financial Management Specialist

Gertrude Anne Diones, Senior Operations Assistant

Punjima C. Ekanayake, Counsel

Puri Philina Gamon, Social Development Officer (Gender) Leonard Leung, Natural Resources and Agriculture Economist

Princess Lubag, Operations Officer

Kyla Matias, Associate Climate Change Officer

Jocelyn Mendoza, Associate Social Development Officer

(Safequards)

Deepak Bahadur Singh, Senior Environment Officer

Yangzom, Procurement Specialist

C. Project Organization Structure

9. MOF is the executing agency. MOAAW and MOCCEE are the implementing agencies. The MOCCEE will establish a project management unit (PMU) in its Climate Change Department. The PMU will work closely with MOAAW, MMS, SDFC and island councils during project

implementation. A project steering committee chaired by Minister, MOCCEE will provide overall policy and strategic guidance to the project.

- 10. Individual consultants and consulting firms will be recruited under the project to support project management, engineering designs, supervision, capacity building, and community awareness. The outline terms of reference are in Appendix 11. Recruitment method will be through quality- and cost-based (90:10) selection, quality- based selection, and individual consultant selection. All consultants will be recruited in accordance with ADB's ADB Procurement Policy (2017, as amended from time to time) and the Procurement Regulations for ADB Borrowers (2017, as amended from time to time).
- 11. The PMU will comprise the following staff: (i) project director (part-time), (ii) project manager, (iii) civil/environmental engineer; (iv) procurement specialist (MOCCEE staff); (v) urban agriculture specialist (MOAAW staff); (vi) finance management specialist, (vii) environmental safeguards specialist, (viii) social safeguards specialist; (ix) gender expert; (x) communication/behavioral change specialist, (xi) secretary and (xii) office assistant. The Project Director is empowered to take official decisions. Full-time PMU staff will be recruited from the market. The PMU will be supported by the MMS and MOAAW's project implementation consultants for project management, capacity building, monitoring, technical design and supervision support.
- 12. The flow chart of the project organization will be as shown in Figure 1.

Figure 1: Organizational Structure Ministry of Finance (Executing Agency) **Project Steering Committee** Ministry of Climate Change. Ministry of Agriculture **Environment and Energy** and Animal Welfare (Implementing Agency 1) (Implementing Agency 2) **Project Management Unit Project Implementation Consultants** (headed by PMU Director, MOCCEE) Output 1: Proiect Manager Weather Observatory Specialist Civil/Environmental Engineer Agrometeorologist **Procurement Specialist** Output 2: Finance Management Specialist Civil Works Supervision Consulting Firm* Urban Agriculture Expert Coastal/Environmental Engineer Environmental Safeguards Mangrove Ecologist Specialist Output 3: Social Safeguards Civil Works Supervision Consulting Firm* Gender Expert Urban Agriculture Expert Communication/behavioral change specialist Secretary *One construction supervision firm will be hired for Office assistant all civil works.

D. Implementation Plan for Output 1 (Radar Systems)

13. Output 1 will strengthen the country's institutional capacity for weather monitoring, forecasting and early warning by improving infrastructure, software and capacities in real-time weather monitoring, forecasting and early warning. A Doppler S-band weather radar and ancillary equipment will be installed in Addu City to improve real-time weather monitoring over the south of the country. The existing Male radar will be refurbished. An advanced data processing and analysis system will be put in place to ensure the interoperability of the various instruments and systems. The development and use of agro-climate forecasts and advisories will also be piloted. Lastly, capacity building and behavioral change activities will be conducted to maximize the effectiveness of the monitoring and early warning systems at both institutional and community levels.

E. Implementation Plan for Output 2 (Flood Mitigation)

- 14. Output 2 will implement infrastructure and nature-based solutions for pluvial flood mitigation, coastal protection and mangrove restoration in Kulhudhuffushi Island. Stormwater drainage and filtration systems and nature-based solutions such as bioswales will be constructed for inland flood protection. Offshore and nearshore coastal protection structures will be improved to prevent overtopping and erosion. The island's long-term protection and resilience will be supported through the development of a drainage management plan and management plan.
- 15. Modeling and detailed design studies are required as a first step to ensure appropriate designs are prepared, which are suitable for the complex ecosystems on Kulhudhuffushi island. The main objective of the studies are to ensure (i) an improved understanding of the current and future behavior of the hydrological and coastal dynamics flow and circulation in and around the island across all seasons, and (ii) inform and carry out detailed designs based on the initial concepts provided as part of the technical assistance for the project preparation to improve its ability to address and adapt to the future climate risks. The results of the assessment will provide baseline information critical for the formulation of rehabilitation, restoration, conservation, and management designs and plans.
- 16. The indicative timeline for the Output 2 activities is as follows:
 - Y1-Y2 (1st to 15th month): modeling and design studies
 - Y2 (12th to 18th month): initiation of the environmental screening and assessment for the selected subprojects as per the project EARF and environmental requirements of Maldives.
 - Y2 (15th to 24th month): procure and award works for the selected subprojects
 - Y3-Y5: construction and commissioning of works

F. Implementation Plan for Output 3 (Hanimaadhoo Agriculture Centre Infrastructure Investment)

17. The Hanimaadhoo Agriculture Centre (HAC) was established under the Training, Extension and Adaptive Research Section of the Ministry of Agriculture and Animal Welfare (MOAAW) with the goal that it would play a central role as an agriculture advisory center for knowledge generation and dissemination. It has also been the main residence of most of the agriculture training and extension personnel, particularly to farmers from the northern atolls who have direct access to the services of HAC.

- 18. The main tasks of the HAC are to provide agricultural information to farmers, testing of varieties and new agricultural technologies, production of forestry and fruit trees for various island greening programs, and support for agriculture projects. The vision for the HAC is to become a centre of excellence for agricultural research and technology that contributes to a prosperous Maldives.
- 19. The HAC has been developed gradually on an ad hoc basis depending largely on the availability of funding from the Government of Maldives (GoM) and donor programmes, and has not been linked to long-term sector policies. This has led to inefficient land use and lack of cohesion between the resources. There is no predictable annual budget for operations of HAC.² While current activities are aligned to demonstrating a limited range of technology and farming practices, the HAC does not have the infrastructure and facilities needed to support activities that will assist in developing 'home grown' solutions to climate change adaptation and to increasing food security.
- 20. Based on consultations with MOAAW officials, HAC staff, and farmers, as well as the SDP and the LUP, the investment project proposes to support HAC with capital works, equipment and capacity building. The proposed outcomes of this investment are:
 - (i) HAC has the resources to undertake research that will contribute to developing technology to improve the resilience of the agriculture sector to climate change events.
 - (ii) HAC has the capacity to develop and deliver relevant agriculture training programs to farmers, communities and schools, which will contribute towards enhancing food security.
 - (iii) HAC develops linkages with regional and global partner organizations and participates in climate smart agriculture research.
- 21. A knowledge platform will be established at HAC with the objective of working with stakeholders to identify site-specific problems, generating solutions to problems using an adaptive research approach, and for disseminating knowledge.
- 22. The capacity of HAC research staff will be developed to (i) enhance community understanding of food security, food production systems, water and waste management (ii) undertake adaptive research through working with farmers and extension staff, identify and prioritize problems, conduct field trials, synthesize and simplify information generated by research, into a form that can be effectively used by farmers (iii) facilitate farmer field schools.
- 23. The course content will comprise community training (schools, Island Councils) and adaptive research. Community training will cover irrigation and water management, ground water monitoring, asset management, and systems thinking. Adaptive research will focus on identifying problems that are specific to the Maldives environment and developing site-specific technology packages for increasing agricultural production. The process will involve (i) technology identification and screening for increasing production and reducing the impact of climate change (ii) assessment of technology and techniques in field locations (iii) development of technology packages that are contextually relevant to the agro-ecological, socio-economic, cultural and institutional conditions of each site.

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¹ Government of Maldives, Ministry of Fisheries, Marine Resources and Agriculture and MAP. 2023. *Strategic Development Plan Hanimaadhoo Agriculture Centre*. Malé.

² Footnote 1.

24. Training will include use of rapid rural appraisals to identify and prioritize research topics; identification of technology; scientist-led designing of field trials; data analysis; selection of technologies; farmer led trials and workshops for presentations of results.

G. Implementation Plan for Output 4 (Matching Grant)

- 25. To encourage climate adaptation business and services development over the long term, a national matching grant program will be developed. The grant will be administered by SME Development Finance Corporation (SDFC) with the technical support of PMU, MOCCEE, MOAAW, and other relevant institutions including BCC, Agro National Corporation, Bank of Maldives, and sponsoring private companies. Administration arrangements for the matching grant program will be laid out in a memorandum of understanding (MOU) between MOCCEE, MOAAW and SDFC.³ SDFC will not administer the grant proceeds. MOCCEE will disburse the grant proceeds following the fund flow in Figure 2. SDFC will advertise calls for proposals and collect applications online through its website, undertake due diligence on the proposals and grant applicants; and facilitate the process for grant approvals and awarding by the Grant Committee, guided by PMU. Details of the matching grant administration will be developed during the first year of the project. Consultants will be hired under the attached technical assistance for this purpose.
- 26. The matching grants are nonreimbursable transfers to selected project beneficiaries with innovative business ideas for adaptation services and urban farming and agribusiness, particularly women and young entrepreneurs with promising business ideas and aspirations. In addition to urban farming and agribusiness proposals of various scales, it is expected that adaptation service proposals such as on digital climate information and flood warning services, weather forecasting and farming advisory, community-oriented mangrove planting may be proposed.
- 27. The matching grant support will be provided, based on a set of qualification and selection criteria, to individuals, farmer groups, women development committees of island councils, CSOs and MSMEs, particularly women and youth-led agribusiness and adaptation service enterprises. Applications will be invited nationwide through calls for proposals for (i) small-scale grants category for individuals; (ii) sustainable urban farming and agribusiness category; and (iii) innovative adaptation businesses and services category for MSMEs. The grant program will finance (i) 100% of the proposals for small grants category; (ii) 100% support for the capex costs of urban farming systems of various scale (applicants will cover operation costs of the proposed farming and business); and (iii) 100% support for the capex costs of MSME seed proposals. The matching grant will follow the implementation arrangements outlined in Table 6.

Table 6: Matching Grant Implementation Arrangements and Approval Process

Responsible	Activity	Timeline
Unit/Agency		
PMU	Lead and be responsible for implementing the matching grant	From Q1 2025
	program	
	Facilitate the development of a memorandum of agreement between the government and SDFC regarding the administrative services that SDFC will provide	Q1-Q2 2025

³ SDFC is a state-owned entity. It is a specialized financial institution focused on providing financial products and services to micro, small and medium enterprises (MSMEs) and entrepreneurial start-ups in Maldives, and it collaborates with various government ministries to support priority sectors such as tourism, agriculture, and fisheries.

Responsible Unit/Agency	Activity	Timeline
omargency	Oversee screening and due diligence of subproject proposals under Output 2 for matching grants based on eligibility criteria.	From Q1 2026
	Report the findings and recommendations of SDFC to the Project Committee, and convene a grant committee to approve grant proposals	From Q2 2026
	Be responsible for disbursement of matching grants to approved proposals	From Q2/Q3 2026
SDFC	Manage the matching grant program on behalf of the Project	Q3 2025
	Plan the waves of call for proposals for each beneficiary category in consultation with the Grant Committee	Q4 2025
	Advertise the call for proposals and collect applications (thru the SDFC's online platform)	From Q4 2025
	Connect potential applicants with technical specialists (PMU) for advisory services on eligible and feasible grant proposals	From Q1 2026
	Organize pitch events ^a or advertisement campaigns (through SDFC website, Gov.mv, NGOs, sponsors) and reach out to potential applicants in order to collect substantial number of quality proposals	From Q3 2025
	Undertake screening and due diligence of matching grant proposals based on the selection criteria listed in para. 28 of this PAM.	From Q1/Q2 2026
	Report to PMU on the results of the proposal evaluation, and propose eligible applications to the Grant Committee for funding	From Q1/Q2 2026
Grant committee	Evaluate the proposals based on the SDFC advisory, and award funding to successful proposals	From Q1/Q2 2026
MOCCEE and MOAAW	Technically support identification, application preparation, evaluation, and implementation of the proposals	From Q1/Q2 2026

^a ADB can help organize pitch events for women and young entrepreneurs category at ADB challenge (https://challenges.adb.org/en/challenges) or together with other ADB events.

28. The grant support will follow the following selection criteria.

- (i) Proposals should be technically sound and financially viable.
- (ii) Proposals must adhere to ADB's environmental and social safeguards and should exclude any activities that adversely impact the environment and people. All compliances/ permissions/ documentation/ clearances/ No Objection Certificates etc. as required by the concerned departments/authorities of the government against industrial norms, registrar of companies (ROC), etc.
- (iii) Projects shall conform to the national and local industrial development plans and shall not include projects that are restricted or prohibited.
- (iv) Relevant land use approval from Land title in the name of the applicant or land lease, duly registered with the competent authority, will be required.
- (v) Preference will be given to projects possessing Change in Land Use permission provided by a competent authority.
- (vi) Preference will be given to projects utilizing sustainable, nature-based, and innovative technologies, and those which promote gender, inclusion and transformative agenda.
- (vii) At least 30% of the proposals approved and extended matching grants are for women or youth-groups.
- (viii) Grants will be extended only for selected projects of eligible organizations; and will be primarily extended to women entrepreneurs or women-led organizations.

(ix) Not more than one application from the same applicant / company will be entertained. An application will be considered as a second proposal if there are cross holdings of the promoter(s) / partner(s) between two applicants / entities.

MCCEE Grant committee - Sanctioning of Sanctioned grants Screened grants applications (amounts & grantees) **SDFC** MCCEE/PMU -Screening, & Inspection Disbursement of service charge Inspection of invoices, bank statement, & physical output Disbursement of grant proceeds Submission of Applications Grant applicants Grantees

Figure 2: Grant Program Document and Fund Flow

IV. COSTS AND FINANCING

A. Cost Estimates Preparation and Revisions

Table 7: Summary Cost Estimates

(\$ million)

Item	Amount ^a	%
A. Base Cost ^b		
Institutional and community capacity for climate adaptation improved	5.80	20.8
2. Effective flood and coastal protection with nature-based solutions		
implemented	12.93	46.3
3. Climate-smart technologies and practices in agri-food system promoted	2.87	10.3
4. Climate adaptation businesses and services, and urban farming		
implemented	1.50	5.4
Project management	1.70	6.0
Subtotal (A)	24.80	88.8
B. Contingencies ^c	2.89	10.4
C. Financial Charges During Implementation ^d	0.23	0.8
Total (A+B+C)	27.92	100.0

^a Includes taxes and duties of \$1.97 million. The government will finance taxes and duties through cash contribution.

- 29. The government has requested (i) a grant not exceeding \$17.95 million from ADB's Special Fund resources (Asian Development Fund) and (ii) a concessional loan of \$4 million from ADB's ordinary capital resources to help finance the project. The loan will have an interest charge at the rate of 1.0% per year; a term of 40 years, including a grace period of 10 years; repayment of principal at 2% per year for the first 10 years after the grace period and 4% per year thereafter; and such other terms and conditions set forth in the draft loan agreement.
- 30. The summary financing plan is in Table 8. ADB will finance the eligible expenditures in relation to works, goods, consulting services, the matching grant scheme for urban farming, and contingencies under outputs 1, 2 and 4. Japan Fund for Prosperous and Resilient Asia and the Pacific's (JFPR) grant cofinancing of up to \$3 million will finance HAC and related capacity building activities under output 3. Up to \$1 million of nature-based solutions activities under output 2 will be financed on a grant basis by ORCATF⁴ under the Ocean Resilience and Coastal Adaptation Financing Partnership Facility. ADB will administer both the JFPR and ORCATF grants. The government will provide \$1.97 million for incremental administration costs, taxes and duties through cash contribution, and financing charges. The government has assured ADB that it will cover any shortfall in financing required to meet the agreed outputs.

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^b Base costs in Q2 2024 prices.

^c Physical contingencies computed at 10% for all expenditure categories; price contingencies computed at 1.8% for 2024 and 2025, and 2.0% thereafter for foreign currency costs; and 3.2% for 2024 and 2.5% thereafter for local currency costs; conversion between currencies assumes purchasing power parity.

^d Includes interest during implementation, which has been computed at 2.5% per year for the concessional OCR loan Source: Asian Development Bank.

⁴ Financing partner: Nordic Development Fund.

Table 8: Summary Financing Plan

Source	Amount (\$ million)	Share of Total (%)
Asian Development Bank	,	, ,
Special Funds resources (Asian Development Fund grant) ^a	17.95	64.4
Ordinary capital resources (concessional loan)	4.00	14.3
Japan Fund for Prosperous and Resilient Asia and the Pacific (grant) ^b Ocean Resilience and Coastal Adaptation Trust Fund ^c under	3.00	10.7
the Ocean Resilience and Coastal Adaptation Financing		
Partnership Facility (grant)	1.00	3.6
Government of Maldives d	1.97	7.0
Total	27.92	100.0

^a Includes a \$15 million grant from the Asian Development Fund (ADF) 13 thematic pool's disaster risk reduction and climate adaptation strategic area, and \$2.95 million from ADF 13 country allocation from savings and cancellations.

- 31. Detailed cost tables prepared during project design are included as appendixes to support implementation and monitoring.
- 32. The cost estimates have been prepared based on the detailed feasibility studies prepared by the ADB project preparatory technical assistance team in consultation with MOCEE and MOAAW. The cost estimates will be updated during project implementation. Project costs may be revised during midterm review or special administration review missions.

B. Key Assumptions

- 33. The following key assumptions underpin the cost estimates and financing plan:
 - (i) Exchange rate: Rf15.46 = \$1.00 (as of 31 May 2024).
 - (ii) Price contingencies based on expected cumulative inflation during implementation are in Table 9.

Table 9: Escalation Rates for Price Contingency Calculation

Item	2024	2025	2026	2027	2028	2029	2030	Average
Foreign rate of price inflation	1.8%	1.8%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Domestic rate of price inflation	3.2%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%

Source(s): Asian Development Bank.

- (iii) In-kind contributions were calculated based on estimates on counterpart staff, office, office supplies, and secretarial assistance.
- (iv) Physical contingencies were calculated at 10% for all cost categories.

Output 3 will be financed on a grant basis by the Japan Fund for Prosperous and Resilient Asia and the Pacific and administered by ADB.

^c Financing partner: Nordic Development Fund. Administered by the Asian Development Bank..

^d The government will finance, interest, taxes and duties of \$1.97 million by cash contribution. Source: Asian Development Bank.

C. Allocation and Withdrawal of Loan and Grant Proceeds

Table 10: Allocation and Withdrawal of ADB Asian Development Fund Grant Proceeds

Category	ltem	Total Amount Allocated for ADB Financing (\$)	Basis for Withdrawal from the Grant Account
1	Works (others), Machinery, Equipment and Vehicles, Matching Grant, Capacity Development Program, Consulting Services, Recurring Costs	13,920, 000	100% of total expenditure claimed*
2	Civil Works (inland drainage network improvement)	2,080,000	100.0% of total expenditure claimed
	Unallocated	1,950,000	
	Total	17,950,000	

^{*} Exclusive of taxes and duties imposed within the territory of the Recipient.

Table 11: Allocation and Withdrawal of ADB Concessional Loan Proceeds

Category	ltem	Total Amount Allocated for ADB Financing (\$)	Basis for Withdrawal from the Loan Account
1	Works (inland drainage network improvement)	4,000,000	100.0% of total expenditure claimed*, [†]
		4,000,000	

^{*} Exclusive of taxes and duties imposed within the territory of the Borrower.

Table 12: Allocation and Withdrawal of Japan Fund for Prosperous and Resilient Asia and the Pacific Grant Proceeds

Category	ltem	Total Amount Allocated for JFPR Financing (\$)	Basis for Withdrawal from the Loan Account
1	Hanimaadhoo Agriculture Center (works, laboratory equipment, and capacity building)	3,000,000	100% of total expenditure claimed*
		3,000,000	

^{*} Exclusive of taxes and duties imposed within the territory of the Recipient.

[†] Expenditures will be front-loaded until the allocated amount is fully utilized.

[†] Expenditures to be paid after ADB Asian Development Fund grant proceeds have been fully utilized.

Table 13: Allocation and Withdrawal of Ocean Resilience and Coastal Adaptation Trust Fund Grant Proceeds

Category	ltem	Total Amount Allocated for ORCATF Financing (\$)	Basis for Withdrawal from the Loan Account
1	Works (nature-based solutions)	1,000,000	100% of total expenditure claimed*
		1,000,000	

^{*} Exclusive of taxes and duties imposed within the territory of the Recipient.

E. Contract and Disbursement S-Curve

Table 14: Projected Contract Awards and Disbursement – ADF
(\$ million)

(ψ 111111011)										
		Cor	ntract A	ward		Disbursement				
Year	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total
2025	0.00	0.27	0.54	0.54	1.36	0.00	0.14	0.14	0.27	0.54
2026	0.54	0.81	0.54	0.54	2.44	0.27	0.27	0.27	0.54	1.36
2027	1.63	0.83	0.62	0.83	3.92	0.81	0.54	0.54	1.63	3.52
2028	1.25	1.41	1.57	1.57	5.81	0.83	0.62	0.83	1.25	3.54
2029	0.91	0.91	1.21	0.41	3.43	2.20	2.36	2.12	0.91	7.58
2030	0.81	0.19	0.00	0.00	1.00	0.41	0.90	0.10	0.00	1.41
Total					17.95					17.95

ADF = Asian Development Fund. Q = quarter.

Source: Asian Development Bank.

Figure 3: Contract Award and Disbursement S-Curve for ADF (\$ million)

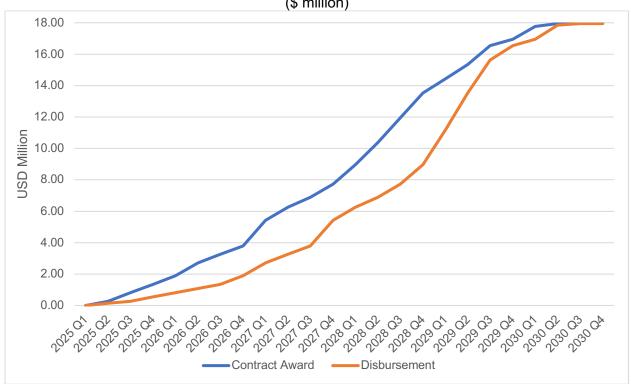


Table 15: Projected Contract Awards and Disbursement – JFPR (\$ million)

		Cont	ract A	•		Disbursement				
Year	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total
2025	0.00	0.13	0.26	0.26	0.66	0.00	0.07	0.07	0.13	0.26
2026	0.26	0.40	0.26	0.26	1.19	0.13	0.13	0.13	0.26	0.66
2027	0.79	0.01	0.01	0.01	0.83	0.40	0.26	0.26	0.79	1.72
2028	0.02	0.03	0.03	0.03	0.10	0.01	0.01	0.01	0.02	0.06
2029	0.02	0.02	0.03	0.03	0.10	0.04	0.04	0.05	0.02	0.16
2030	0.08	0.04	0.00	0.00	0.12	0.03	0.10	0.02	0.00	0.14
Total					3.00					3.00

JFPR = Japan Fund for Prosperous and Resilient Asia and the Pacific, Q = quarter. Source: Asian Development Bank.

Figure 4: Contract Award and Disbursement S-Curve for JFPR

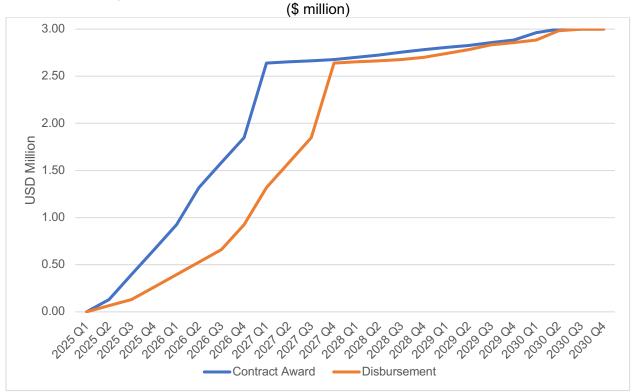


Table 16: Projected Contract Awards and Disbursement
- ADB Concessional Loan

(\$ million)

					(•					
Year		Co	ntract Av	vard		Disbursement				
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total
2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2027	0.00	0.00	2.00	2.00	4.00	0.00	0.00	0.00	0.20	0.20
2028	0.00	0.00	0.00	0.00	0.00	0.40	0.60	0.60	0.60	2.20
2029	0.00	0.00	0.00	0.00	0.00	0.80	0.80	0.00	0.00	1.60
2030	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total			•	•	4.00		•	•		4.00

Q = quarter.

Source: Asian Development Bank.

Figure 5: Contract Award and Disbursement S-Curve for Concessional OCR

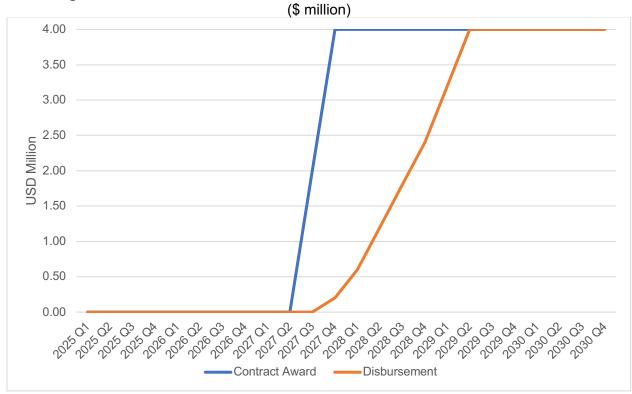


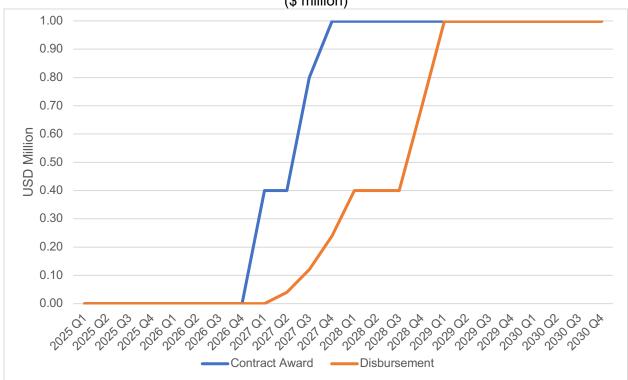
Table 17: Projected Contract Awards and Disbursements- ORCATF (\$ million)

					<u>(Ψ</u>					
Year	Contract Award					Disbursement				
Teal	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total
2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2027	0.40	0.00	0.40	0.20	1.00	0.00	0.04	0.08	0.12	0.24
2028	0.00	0.00	0.00	0.00	0.00	0.16	0.00	0.00	0.30	0.46
2029	0.00	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.30
2030	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total					1.00					1.00

ORCATF = Ocean Resilience and Coastal Adaptation Trust Fund, Q = quarter.

Source: Asian Development Bank.

Figure 6: Contract Award and Disbursement S-Curve for Ocean Fund (\$ million)



G. Fund Flow Diagram

34. Figure 7 shows how funds will flow from ADB, the cofinanciers, and the borrower to implement the project activities; and how documents for requests for disbursement will flow to ADB.

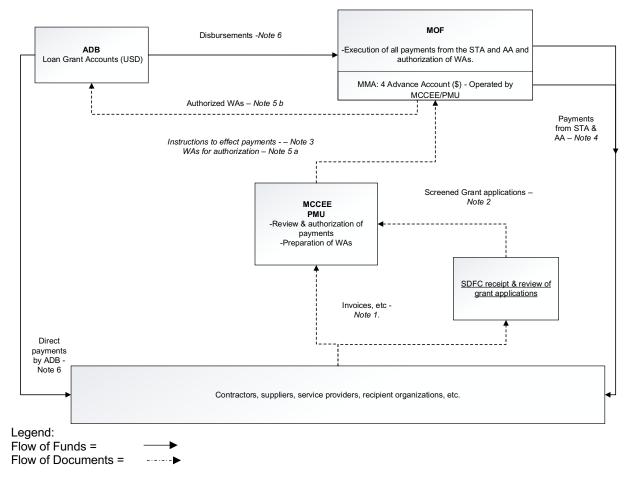


Figure 7: Fund Flow Diagram

ADB = Asian Development Bank, AA= Advance Account, MOCCEE = Ministry of Climate Change, Environment, and Energy, MMA = Maldives Monetary Authority, MOF = Ministry of Finance; PMU=Project Management Unit, SDFC= SME Development Finance Corporation, STA=Single Treasury account; WA=Withdrawal Application. Notes to the fund flow:

- Note 1: The Contractors, suppliers, service providers, consultant & recipient organizations submit invoices, etc. to MOCCEE/PMU in accordance with the terms and conditions of the contract, sub-grant agreement etc. As part of the matching grant scheme the applicants submit their grant applications to SDFC.
- ii. Note 2: SDFC screens the grant applications. Mathing grants are sanctioned by the MOCCEE grant committee.
- iii. Note 3: MOCCEE/PMU provides MOF the instructions to effect the payments from the Advance Accounts.
- iv. Note 4: MOF effects payments from the Advance account as Instructed by MOCCEE. The government counterpart share of each invoice is paid in accordance with the government rules and regulations against the respective budget line/subline.
- v. Note 5 a: MOCCEE/PMU prepares Withdrawal Applications (WAs) in accordance with ADB's loan disbursement handbook and submits them to MOF for final authorization. Note 5 b: Withdrawal applications, authorized by MOF are submitted to ADB using the Client Portal for Disbursement.

vi. Note 6: ADB disburses funds in accordance with the applicable disbursement procedure. Under the direct payment procedure, ADB makes the payment directly to the contractor, service provider, etc. against withdrawal applications authorized and submitted by MOF to ADB via the Client Portal for Disbursement

V. FINANCIAL MANAGEMENT

A. Financial Management Assessment

- 35. The financial management assessment (FMA) was conducted in June 2024 following ADB's guidance. The FMA assessed the financial management arrangements of the MOCCEE, including fund flow, staffing, accounting policies and procedures, financial reporting and monitoring, internal and external auditing arrangements and financial information systems, and the sufficiency of the financial management arrangements for implementing the project. The financial management arrangements will be centralized to MOCCEE, which has experience in implementing ADB assisted projects. The MOCCEE will be fully responsible for project implementation, procurement and financial management. The input from the other agencies will be technical. Based on the assessment, the key financial management risks identified are: i) detailed financial management arrangements for the grant scheme has not been formalized; (ii) the accounts staff positions in the PMU are vacant; (iii) the internal audit function in MOCCEE may not have adequate resources to include the project in its audit plan, and (iv) the government accounting software may not be unable to capture all receipts and payments under the ADB financing.
- 36. The overall pre-mitigation financial management risk of the project is Substantial. The FMA found that MOCCEE has adequate capacity to administer the statement of expenditure (SOE) procedure, as well as the advance account in accordance with ADB's disbursement procedures. The borrower and MOCCEE have agreed to implement an action plan to mitigate the project financial management risk. The financial management action plan is provided in Table 18.

Table 18: Financial Management Action Plan

Areas	Risk Description	Risk rating	Agreed Action	Responsibility	Timeframe
Staffing	The accounts staff position in the has not been filled. The PMU may	S	Assign an accountant to the PMU from its existing pool of accountants;	MOCCEE	By grant effectiveness
	require additional support to meet ADB's FM requirements.		Engage an FM expert on an intermittent basis to support the PMU to comply with ADB's FM requirements.	MOCCEE, through its PMU	By grant effectiveness
Financial management capacity building	Due to staff turnover, newly assigned accounts staff may lack experience in implementing ADB assisted project.	М	Undertake training in ADB Financial reporting and audit requirements as well as disbursement procedures and systems (LFIS, CPD etc).	MOCCEE /PMU together with ADB	By grant effectiveness and thereafter annually
Matching Grant scheme	The Financial management and fund flow under the grant scheme has not been formalized	S	Establish efficient arrangements to oversee the grant scheme effectively, including: (i) Sign an MoU or equivalent between MOCCEE and SDFC	MCCE, /PMU & SDFC	Before first disbursement under the grants

Areas	Risk Description	Risk rating	Agreed Action	Responsibility	Timeframe
			outlining the roles and responsibilities; (ii) Establish a grant committee to review and approve grant applications. (iii) Formalize the eligibility criteria for the grantees (iv) Formalize the detailed Financial management grant agreement template, including accounting, financial reporting and audit requirements as well as disbursement triggers and obtain ADB's non objection		
Accounting	The government chart of accounts may not be changed to reflect the advance accounts or to track project expenditures by output, etc.	М	-Develop a chart of accounts to ensure: (i) separate accounts are maintained for the project, (ii) receipts from the government as well as ADB - including receipts to - and payments from the advance account, and direct payment procedure can be separately tracked, (ii) the government expenditure categories are aligned with structure outlined in the PAM in the financial reports and (iii) expenditure can be tracked by project output.	MOCCEE /PMU together with ADB	By the project inception mission or within 3 months after grant effectiveness, whichever occurs first
			-Prepare and adopt project financial management and accounting manual detailing the financial management arrangements such as the budgeting, internal controls, accounting entries, chart of accounts, internal and external audit, information system, etc. -Maintain separate control registers for: (i) grants & subsidies approved and disbursed; and (ii) status of internal /external audit recommendations/observations.	MOCCEE /PMU together with ADB	By the project inception mission or within 3 months after grant effectiveness, whichever occurs first
Internal audit	The MOCCEE internal audit function may not cover the project on annual basis and internal control weaknesses may go undetected.	S	-Request the MOCCEE internal audit function to include the project in its annual audit plan. - Report internal audit observations and recommendations related to the project in the IAD audit portal and include them in the QPRs submitted to the ADB.	MOCCEE, /PMU	Annually Annually /Quarterly

Areas	Risk Description	Risk rating	Agreed Action	Responsibility	Timeframe
External audit - project level	Project financial statements are annually audited by the Auditor General's office in accordance with International standards on auditing. There may be slight delays in the submission of the APFS to ADB. Moreover, Audit observations may not be timely addressed.	M	-Ensure the project is included in the audit plan of the Auditor General's Office and that the project financial statements are audited separately by AGO. -Submit the APFS and ML to ADB. -Establish a Project Audit Recommendations Review Committee headed by the PD or equivalent to review audit observations and ensure they are addressed in a timely manner.	MOCCEE /PMU MOCCEE /PMU MOCCEE, /PMU	By grant effectiveness Within 6 months after the end of each fiscal year Within 6 months after grant effectiveness
Financial reporting	The government financial reporting practices may not fully comply with ADB's requirements and additional disclosure may be required, in order to provide ADB and PMU with the right financial information for effective project management.	М	-Include comprehensive financial information in the quarterly progress reports in the agreed format and submit to ADB. -Prepare project financial statements in a format agreed with ADB.	MOCCEE, /PMU MGFSS/ MOCCEE, /PMU	Within 45 days after each quarter Within 60 days after the end of each Fiscal year
Information systems	The chart of accounts of the Government accounting system (SAP) cannot be modified to capture payments made from the advance account or direct payments or to reflect the expenditure categories of the PAM. As a result, the project may end up using excel for accounting and financial reporting purposes which is prone to errors.	S	-Implement a standalone accounting software for effective accounting and financial management and record all receipts and payments in the accounting software. -Obtain access to the ADB loan/grant financial information services (L/GFIS) undertake periodic reconciliations of project records and ADB's disbursement information to ensure all withdrawals have been accurately captured.	MOCCEE, /PMU MOCCEE, /PMU	By grant effectiveness By grant effectiveness and quarterly
Control Risk			Substantial	ı	
Overall FM risk	Substantial				

Source: Asian Development Bank.

B. Disbursement

1. Disbursement Arrangements for ADB

- 37. Disbursement of the ADB loan, ADF grant, JFPR grant and ORCATF grant proceeds will follow ADB's *Loan Disbursement Handbook* (2022, as amended from time to time)⁵ and detailed arrangements agreed between the government and ADB. The MOCCEE, through its PMU, will be responsible for (i) collecting supporting documents, and (ii) preparing and sending withdrawal applications for MOF's endorsement and submission to ADB. Online training for project staff on disbursement policies and procedures is available.⁶ Project staff are encouraged to avail of this training to help ensure efficient disbursement and fiduciary control.
- 38. Advance fund procedure. MOF will establish four (4) advance account—one for each source of funds (ADB OCR, ADF, JFPR and ORCATF)—at the Maldives Monetary Authority (MMA). MOF shall delegate the administration of those accounts to the PMU at MOCCEE. The currency of the advance accounts is US dollar. The advance accounts are to be used exclusively for ADB's share of eligible expenditures. MOF and MOCCEE are accountable and responsible for the proper use of advances to the advance accounts. No funds from the advance accounts will be transferred to the other implementing agencies.
- 39. The total outstanding advance to the advance accounts should not exceed the estimate of ADB's share of expenditures to be paid through the advance account(s) for the forthcoming six (6) months. MOCCEE, which administers the advance account, may request for initial and additional advances to the advance account based on an estimate of expenditure sheet⁷ setting out the estimated expenditures to be financed through the account(s) for the forthcoming six (6) months. Supporting documents, if applicable, should be submitted to ADB or retained by the MOCCEE following ADB's *Loan Disbursement Handbook* when liquidating or replenishing the advance account.
- 40. **Statement of expenditure procedure.** The statement of expenditure (SOE) procedure may be used for reimbursement of eligible expenditures and liquidation of advances to the advance account. Supporting documents and records for the expenditures claimed under the SOE should be maintained and made readily available for review by ADB's disbursement and review missions, upon ADB's request for submission of supporting documents on a sampling basis, and for independent audit.
- 41. Before submitting the first withdrawal application, the borrower should submit to ADB sufficient evidence of the authority of the person(s) who will sign the withdrawal applications on behalf of the government, together with the authenticated specimen signatures of each authorized person. The minimum value per withdrawal application is stipulated in the *Loan Disbursement Handbook*. Individual payments below such amount should be paid (i) by the MOF or MOCCEE and subsequently claimed from ADB through reimbursement or (ii) through the advance fund procedure, unless otherwise accepted by ADB. The borrower should ensure sufficient category

⁵ The handbook is available at ADB website: ADB. 2022. Loan Disbursement Handbook 2022.

⁶ Project staff already registered in ADB's eLearn platform can access the <u>ADB Disbursement Simplified course</u> on eLearn. New users can register for the online training by submitting the course registration form.

The estimate of expenditure sheet is in Appendix 8A of ADB's Loan Disbursement Handbook and is available for download from ADB. Loan and Grant Financial Information Services.

⁸ SOE forms are available in Appendixes 6A and 6B of ADB's *Loan Disbursement Handbook* and are available for download from ADB. <u>Loan and Grant Financial Information Services</u>.

⁹ The evidence of authorized persons to sign withdrawal applications is in Appendix 4A of ADB's *Loan Disbursement Handbook* and is available for download from ADB. <u>Loan and Grant Financial Information Services</u>.

and contract balances before requesting disbursements. Using ADB's Client Portal for Disbursements system¹⁰ is mandatory for submitting withdrawal applications to ADB.

42. **Disbursement conditions under the Matching Grant scheme**. With regards to the matching grants scheme under output 4, no project funds will be disbursed to beneficiary organizations until the grant fund agreement template has received ADB's non-objection, a Memorandum of Understanding (MoU) or equivalent has been signed between MOCCEE and SDFC outlining the roles and responsibilities, and a grant committee has been established to review and approve matching grant applications. Moreover, the supporting documentation listed in Table 19 below must be retained by the MOCCEE/PMU for annual audit of project financial statements and/or ADB's review. ADB reserves the right to request submission of such documents, if deemed necessary.

Table 19: Supporting Documents for Matching Grants

Category	Supporting documentation to be retained
Grant Scheme	 (i) Beneficiary /Grantee's payment request or equivalent, (indicating date, amount, and bank account details) (ii) Official receipt, bank transfer record or other proof of payment. Documentation (e.g. sanction letter, decision or equivalent) evidencing the grant/subproject approval/sanctioning by the grant committee. (iii) Grant agreement including the terms and conditions including the terms and conditions of disbursement, and other documents as required in the partnership grant agreement.

2. Disbursement Arrangements for Counterpart Fund

43. The MOF will provide counterpart funds from its annual budgets, which will be based on the amounts allocated for the project in the government's budget. MOCCEE, through the PMU, will be responsible for (i) preparing disbursement projections, (ii) requesting budgetary allocations for the counterpart funds, and (iii) collecting supporting documentation. All disbursements under government financing will be carried out in accordance with the regulations of the Government of Maldives and accounting principles acceptable to ADB.

C. Accounting

- 44. The MOCCEE, through its PMU, will maintain, or cause to be maintained, separate books and records for all expenditures incurred on the project from all funding sources following the International Public Sector Accounting Standard (IPSAS) for cash-based accounting and the government's accounting laws and regulations. All receipts and payments under the project will be recorded in a suitable off-the-shelf accounting software (e.g., QuickBooks) maintained by the PMU.
- 45. MOCCEE, through its PMU, will prepare project financial statements in accordance with International Public Sector Accounting standards (IPSAS) cash basis of accounting. Accordingly, the expected disclosures in the project financial statements include at least the following:
 - Statement of cash receipts (by financing source: ADB loan, ADF grant, JFPR grant, ORCATF grant, and government) and payments (by expenditure category) for the current reporting period, past reporting period, and cumulative to date;

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The Client Portal for Disbursements facilitates online submission of withdrawal applications to ADB, resulting in faster disbursement. The borrower needs to complete the registration form, which is available at ADB. <u>Guide to the Client Portal for Disbursements</u>.

- Statement of advance sub account;
- Statement of disbursement, disclosing all funds claimed from ADB loan, ADF grant, JFPR grant, ORCATF grant by disbursement method, total expenditure claimed for the current reporting period, past reporting period, and cumulative to date;
- Disbursement claimed under SOE procedure for the reporting period;
- Statement of budgeted vs. actual expenditures. Any significant variances must be duly explained;
- Statement of expenditure by output (output 1, output 2, output 3, output 4); and
- Notes to the Financial Statements disclosing the accounting standards and policies used and other relevant information and explanations. The notes of the financial statements should include the following additional disclosures: (i) a detailed list of all withdrawal applications submitted to, and (ii) the amounts paid by ADB as follows: (a) WA number, (b) the amount claimed and currency, c) time period in which expenditures were incurred, (d) date submitted, (e) disbursement method and (f) the amount disbursed by ADB.
- 46. The expenditure categories and outputs used in the financial reports will be aligned with the expenditure categories of the PAM. A project financial statement template is included in Appendix 11.
- 47. In addition to the annual project financial statements, MOCCEE, through its PMU, will ensure that comprehensive financial information is included in the quarterly progress reports to be submitted to ADB within 45 days after the end of the quarter. The information will include at least the following:
 - Overall financial progress by financing source for the reporting period, year to date and cumulative;
 - Disbursement information for the reporting period, year to date and cumulative including comparison with projected S-curves as outlined in the PAM and reconciliation with ADB disbursement information;
 - Variance analysis including budget vs actual expenditures and physical vs financial progress, progress;
 - List of signed contracts and payments made under each contract in the reporting period and cumulative;
 - List of approved grants and disbursements against and each approved grant;
 - Status of financial management under the project including follow-up status on the (a)
 Financial Management Action plan, (b) past external and internal audit (if any)
 observations related to the project, and as well as (c) agreed actions from ADB review
 missions.
- 48. Detailed quarterly financial reports may be included as an annex to the progress as agreed with ADB. A template for the financial information to be included in the QPRs is included in Appendix 6.
- 49. **Reconciliations.** To ensure the correctness and completeness of the project's financial statements and reports, MOCCEE through its PMU, shall conduct: (i) monthly reconciliations of the advance account and (ii) quarterly reconciliation of the project accounts, and ADB's disbursement data available in the Loan/Grant Financial Information Services (L/GFIS). Any discrepancies and/or reconciliation items will be followed up on to ensure these are resolved in a prompt manner. The differences between amounts claimed and the amounts disbursed will be disclosed and explained in the WA register, in the quarterly progress reports and in the notes of the project financial statements.

- 50. **Project Audit Recommendations Review Committee.** In order to strengthen the internal control environment of the project and ensure audit observations and recommendations are implemented in a timely fashion, a Project Audit Recommendations Review Committee will be established. The committee will meet on a quarterly basis to undertake the following tasks: (i) review accounting practices, and (ii) monitor external and internal audit observations and recommendations (if any) to ensure these are being adequately implemented within a reasonable time. The status of audit observations and recommendations will be included in the quarterly progress reports.
- 51. Auditing and public disclosure. The MOCCEE will cause the project's financial statements to be audited following the International Standards on Auditing by an independent auditor acceptable to ADB. The audited project financial statements, together with the auditor's opinion, will be presented in English to ADB within six (6) months from the end of the fiscal year by the MOCCEE. The audit report for the project financial statements will include a management letter and auditor's opinions, which cover (i) whether the project financial statements present an accurate and fair view or are presented fairly, in all material respects, following the applicable financial reporting standards; and (ii) whether the proceeds of the ADF grant were used only for the purpose(s) of the project. Compliance with financial reporting and auditing requirements will be monitored by review missions and during normal program supervision, and followed up regularly with all concerned, including the external auditor. The government, MOF, and MOCCEE have been made aware of ADB's approach to delayed submission and the requirements for satisfactory and acceptable quality of the audited project financial statements. 11 ADB reserves the right to require a change in the auditor (in a manner consistent with the constitution of the borrower) or additional support to be provided to the auditor, if the audits are not conducted in a manner satisfactory to ADB or are substantially delayed. ADB reserves the right to verify the project's financial accounts. Public disclosure of the audited project financial statements, including the auditor's opinion on the project financial statements, will be guided by ADB's Access to Information Policy. 12 After the review, ADB will disclose the audited project financial statements and the opinion of the auditors on the project financial statements no later than 14 days of ADB's confirmation of their acceptability by posting them on ADB's website. The management letter. additional auditor's opinions, and AEFS will not be disclosed. 13
- 52. **ADB loan, ADF grant, JFPR grant, and ORCATF grant closure.** In order to close the respective Loan and Grant accounts in a timely manner and to comply with ADB's requirements, the MOCCEE will ensure that the following measures are undertaken:
 - (i) Expenditure forecast for the 12 months preceding grant closing date is prepared and a last WA requesting for an advance or replenishment of each advance account is

(i) When the audited project financial statements are not received by the due date, ADB will write to the executing agency advising that (a) the audit documents are overdue; and (b) if they are not received within the next 6 months, requests for new contract awards and disbursement, such as new replenishment of advance accounts, processing of new reimbursement, and issuance of new commitment letters, will not be processed.

¹¹ ADB's approach and procedures regarding delayed submission of audited project financial statements:

⁽ii) When the audited project financial statements are not received within 6 months after the due date, ADB will (a) withhold processing requests for new contract awards and disbursement, such as new replenishment of advance accounts, processing of new reimbursement, and issuance of new commitment letters; (b) deny the extension of the {loan} {grant} closing date; and (c) delay the negotiation or Board presentation of new {loan} {grant} proposals. ADB will inform the executing agency of ADB's actions and advise that the {loan} {grant} may be suspended if the audited project financial statements are not received within the next 6 months.

⁽iii) When the audited project financial statements are not received within 12 months after the due date, ADB may suspend or cancel the {loan} {grant}.

¹² ADB. 2018. Access to Information Policy. Manila.

¹³ Such information falls under the Access to Information Policy's exceptions to disclosure. Footnote 10, para. 16.

- submitted to ADB 6/12 months before project physical completion date/Loan and Grant closing date;
- (ii) All ADB-financed expenditures are incurred before or by the Loan/Grant closing date;
- (iii) All withdrawal applications including liquidations of the advance account are submitted to ADB preferably by the Loan/Grant closing date but in no case later than the end of the winding-up period; that is, within four months after the end of the Loan/Grant closing date;
- (iv) Any unutilized advances are refunded to ADB within two months after the end of the winding up period;
- (v) The final project financial statements (PFS) are prepared in a timely manner. The final PFS is to include a reconciliation of the project account and the ADB disbursement records for the fiscal year and cumulatively from inception. Any differences must be disclosed and explained;
- (vi) All past external audit observations have been duly addressed;
- (vii) The final project financial statements and utilization certificates are audited by independent auditors as agreed with ADB and the APFS and the management letter are submitted to ADB as soon as possible after the Grant closing date. The Final APFS must include all expenditures incurred up to the Loan and Grant closing date as well as up to the final withdrawal application; and
- (viii) All projects financial records are filed in an orderly manner, backed up electronically and stored in a secure location for a for at least 1 year following receipt by ADB of the final audited project financial statements or 2 years after the Grant closing date, whichever is later.

VI. PROCUREMENT

A. Applicable Procurement Policy

53. Procurement of goods, works, consulting services, and nonconsulting services will follow the ADB Procurement Policy (2017, as amended from time to time) and the Procurement Regulations for ADB Borrowers (2017, as amended from time to time).

B. Procurement Strategy Summary

- 54. The executing agency has prepared a strategic procurement planning report for the project, which defines a procurement strategy that will support the delivery of the project outputs and the achievement of the planned project outcomes.
- 55. Value-for-money is expected from the use of design-and-build and/or engineering, procurement, and construction (EPC) for complex contracts to address the lack of in-house design capacity; and the use of procurement strategies and arrangements agreed in the strategic procurement planning report.

C. Project Procurement Risk Classification

56. The project procurement risk level is assessed as *moderate* considering the good experience of MOCCEE (the IA responsible for all procurement) in implementing several MDB-

financed projects. Further, it is expected that the procurement of most of the major packages (above MVR 5 million) will be administered by the National Tender Department (NTD) and approved by the National Tender Board (NTB) of MOF and that the PMU will be supported by the consultants, which reduces the procurement related risks.

57. The main procurement risks and mitigation measures proposed to address the risks are presented below.

Table 20: Procurement Risks and Mitigation Measures

Risk Description	Proposed Mitigation Measures	Risk Owner
The lengthy government procurement processes may risk the timely procurement activities.	To agree on the time bound review and approval process to expedite the procurement activities. Handholding support from ADB shall also be helpful.	EA and IA
Limited project management capacity of the EA is a challenge.	TOR of the Consultants needs to be defined carefully covering its tasks and responsibilities.	EA/IA
Delay in recruitment of Consultant may lead to increased procurement lead time.	Recruitment process for Consultants needs to be initiated expeditiously.	EA, IA and ADB
Limited capacity of the National Consulting Firms and below standard performance of the firms at large is foreseen as a risk.	The consultant (firm) for specialized activities/ deliveries should be shortlisted on International basis. The use of Individual experts should be given due consideration.	EA, IA and ADB
Limited capacity of the national works contractors in terms of resources and management skills.	The large/ risky packages to be procured using OCB (International) basis. Subject to compliance with ADB's procurement regulations and eligibility criteria, large SOEs which are developing a number of construction related projects in various parts of the country including harbors, coastal protection and revetment projects may also participate in the Open Competitive Bidding.	EA and IA
Poor participation of bidders in sizable project appears to be a risk for the works contracts.	Conduct outreach events, quick market assessment of potential bidders and in coordination with ADB may organize project-wide Business Opportunity Seminars to attract potential bidders. For works beyond the capacity of National bidders adequate mark-ups should be ensured in the cost estimate to attract International bidders.	EA, IA and ADB

D. Project Implementation Arrangements

58. **Procurement methods.** Procurement activities include open competitive bidding using international advertisement for two packages on radar system installation and refurbishment in two sites. The packages will have goods as a major component and will use ADB's standard bidding document for Plant Design-Supply-Installation. OCB (international advertisement) will be used for the construction of the HAC training facility. Laboratory equipment to be installed in HAC

will be procured using OCB (national advertisement) method with three lots while vehicles to support HAC operations, will be procured using request for quotation method. A construction supervision firm (58 person-months) will be hired using quality- and cost-based selection, using national advertisement, to oversee all the project's civil works.

- 59. Due to limited available national experts and the complex nature of expertise required to support outputs 1 and 2 on weather forecasting and flood protection, international individual consultants will provide an estimated 56 person-months on intermittent inputs. These technical consultants will be recruited using the individual consultant selection (ICS) method. Non consulting services will be used to engage an external audit firm.
- 60. Before the start of any procurement, ADB and the government will review the public procurement laws of the government to ensure consistency with the ADB Procurement Policy, and record if any procurement arrangements mandated by those public procurement laws will not be applicable to procurement undertaken on the project.
- 61. **Advance contracting.** Advance contracting for the project will include the procurement of a new radar system in Addu City; refurbishment of the radar system in Male under Output 1, design and construction of the HAC training facility; purchase of vehicles for the HAC; and recruitment of a construction firm (Table 2). The issuance of invitations for bids (for goods, works, and nonconsulting services) or requests for expression of interest/proposals (for consulting and nonconsulting services) under advance contracting will be subject to ADB approval. The borrower, executing agency, and implementing agencies have been advised that approval of advance contracting does not commit ADB to finance the project.
- 62. **Retroactive financing.** Retroactive financing will be for eligible expenditures up to 20% of the total ADB loan, incurred before loan or grant effectiveness, but not more than 12 months before the signing of the loan. The borrower, executing agency, and implementing agencies have been advised that approval of retroactive financing does not commit ADB to finance the project.
- 63. **Procurement review.** Except for the first package for procurement of goods, works, consulting and non-consulting services, all packages will be subject to post review (sampling) by ADB. For post review (sampling), MOCCEE will retain all procurement documentation with respect to each contract for at least 1 year after the project closing date. The documentation will include advertisements or procurement notices (such as the request for expressions of interest or invitation for prequalification, and letter of invitation to consultants or invitation for bids); prequalification documents; prequalification or shortlisting evaluation reports; bidding documents or RFP; bids or proposals, including any amendments and clarifications; evaluation reports (including the analysis of the respective proposals and recommendations for award); the original signed contract; and documents concerning any bidding-related complaints. Audit trails will be made available for procurement done through the electronic procurement with documents in electronic format. ADB will conduct post review during the project review or post review missions. MOCCEE will provide the required documentation to ADB or its consultants assigned to conduct post review
- 64. **Contract management.** A contract management plan will be prepared jointly by the PMU and the contractors, with the support of the construction supervision consultant, which will be updated as and when required.

E. Procurement Plan

65. An 18-month procurement plan indicating procurement packages and review procedures for goods, works, consulting services, and nonconsulting services is included in Appendix 10.

VII. SAFEGUARDS

A. Environmental Safeguards

- 66. Environment. The Project is categorized B for environment following the safeguard Policy Statement (SPS) 2009 of ADB. An initial environmental examination (IEE) of the project was prepared considering a representative sample of the subproject type of work and ecological regions under the scope of the project. The project includes a wide range of activities within the first three Output Components. Hence, one consolidated IEE was prepared for the project by considering representative sample of work under each Component. The subproject samples were discussed and agreed between ADB and the Borrower (GOM). The activities considered by the IEE included (i) Output 1- the weather radar systems in Addu (SP1) and Male (SP2) for monitoring, data processing and forecasting; (ii) Output 2: inland drainage (SP1) and the eastern shoreline coastal protection (SP2) in Kulhudfushi Island; and (iii) Output 3: Hanimadhoo Agriculture Center (HAC) building construction in Hanimadhoo Island. The scope of the Project includes certain activities those require further study and detailed design during the implementation stage of the project. Hence, an Environmental Assessment and Review Framework (EARF) was prepared based on the findings of the IEE and it's environmental management plan (EMP) for screening, categorizing, and preparing required assessment for environment for the added work. Nevertheless, any additional activity attracting category A for environment will not be selected under the project.
- 67. The consolidated project IEE was prepared following the provisions in the ADB's safeguards policy statement 2009 (SPS) and as guided by the national environmental provisions of the GOM. The IEE includes an EMP, which identifies the potential environmental and health & safety impacts, and proposes measures to avoid, minimize or compensate them. The EMP guides with a monitoring plan for structured monitoring of project implementation, overall institutional arrangements to implement the environmental safeguard mechanism, and associated cost. The IEE was prepared after sufficient consultation with the local community, beneficiary and affected persons, local (island and atoll councils) and central government agencies, particularly the Ministry of Environment, Climate Change and Technology, and the Ministry of Agriculture. The final IEE will be the Borrower's document cleared by ADB, and will be disclosed on ADB's website based on the requirements of the ADB's SPS and the Access to Information Policy.
- 68. **Environmental Management Plan.** The approved EMP will be attached with the respective bidding and contract agreement documents. The bidders shall propose sufficient budget in their bids for implementing EMP requirements following specifications as suggested in the bill of quantities and standard specification in the contract. The contract agreement will have safeguards clauses along with corrective actions, and penalty measures for the Employer to apply for continued noncompliance despite of issuing notice to correct. Sufficiency of budget and commitment of the bidder to comply with the EMP requirements will be verified by the Employer before awarding of contracts. The successful contractor will be required to prepare and submit a Construction EMP (CEMP) and Occupational Health & Safety (OHS) plan for Employer's approval before field mobilization. The CEMP and OHS Plan will comply with the EMP requirements and the government policy including those of the local level government (island and atoll councils). The Employer (Project Management Unit PMU) with support of Environment Consultant of Project Implementation Consultant (PIC) will support the contractor by drafting a generic CEMP and OHS plan, clear the plans after submission by contractor, and monitor the contractor in complying them while implementing the work.
- 69. **Environmental Assessment and Review Framework (EARF).** The EARF is prepared for strategic guidance for the environmental assessment and management to the subproject

activities those could be identified during project implementation stage after completion of study, investigation, and detailed design during project implementation. The EARF provides a systematic approach for screening and assessing environmental impacts ensuring compliance with national and international standards and facilitates public consultation and information disclosure. The Framework will guide screening and categorization, environmental assessment, consultations, grievance redress, institutional arrangements, and monitoring and reporting requirements in compliance with the SPS and the rules and regulation of GOM on environmental standards, management, and protection.

- 70. **Protected area.** The project will not encroach upon protected areas and their buffer zones, sensitive ecosystems, and ancient heritage sites. The project's key activities that attract environmental concerns are construction of inland urban drainage system, transportation and installation of weather radar systems, mangrove forest restoration, coastal area protection, and construction of HAC building. The environmental impacts predicted during implementation are mainly restricted to the construction stage and will be site specific, short term in duration, local in extent, temporary and reversible, and of low significance. These will be mainly associated with dust and noise generation during construction, sediment flow from construction sites, traffic disruption during sewerage pipes laying work, and camp operation. No biodiversity will be disturbed and critical habitat affected by the project work implementation. Mangrove restoration will utilize the local species.
- 71. **Environmental monitoring reports.** Semi-annual Environmental Monitoring Reports (SEMRs) will be produced by PMU to track the quality of EMP compliance and action plan for any measures to be taken in the next reporting period. The PMU with support of PIC will monitor environment with comprehensive oversight of EMP/CEMP and OHS plan related activities throughout all the project stages. The SEMR will be prepared following the format attached in the Appendix 10 as a guiding template, and include detailed narrative, tabular data, graphical illustrations, and photographic evidence to thoroughly record project progress, adherence to EMP and OHS plans, and any corrective measures to be taken. The PMU will submit SEMRs to ADB within 30 days after the close of the reporting period and will continue until ADB's issuance of the project completion report. PMU will also include brief reporting on environment and safety in the routine Quarterly Progress Reports (QPRs). The SEMRs cleared by ADB will be disclosed in the ADB website.
- 72. Public consultation and Grievance Redress Mechanism (GRM). During project planning, comprehensive public consultations were conducted, including site observations and focus group discussions with the government officials, community leaders, council officials, and local beneficiaries. These consultations aimed to assess the project's potential impacts and to determine necessary mitigation strategies. The PMU, supported by the PIC, will continuously involve and consult with the affected communities and stakeholders. Regular consultations shall ensure the perspective of the stakeholders are integrated in project work, and necessary training and support required from the Project are identified. Periodic stakeholder engagements will be scheduled depending on their calendar of engagements. The Project will take measures for adapting to contagious diseases like COVID-19. PMU will leverage digital platforms and various media to disseminate updates and solicit feedback, ensuring health risks and regulatory compliance. A comprehensive GRM will be made operational to effectively manage and resolve any social or environmental concerns related to the project implementation. The GRM prepared under social safeguards will be applicable for resolving grievances related to environmental safeguards and safety.
- 73. **Roles and responsibilities.** The PMU will have a fulltime environmental safeguard specialist, and PIC will have construction supervision firm. They will ensure that the contractor

fully complies with all the relevant legal and regulatory requirements, and EMP/CEMP/OHS plans prepared for the project.

- 74. The **PMU** will be responsible for the following:
 - (i) Comply with all relevant environmental legal requirements, government regulations, and standards for the project.
 - (ii) Adhere to the ADB's SPS 2009, the project's EARF, GOM legal requirements, and stipulations within the loan agreements.
 - (iii) Review and endorse the construction environmental management plan (CEMP) developed by the contractor(s) as guided by PIC.
 - (iv) Manage the application and submission of essential documentation for obtaining government permits and clearances, including environmental clearance certificates and other relevant clearances.
 - (v) Organize environmental management training and induction workshops for all project staff and workers.
 - (vi) Perform routine field checks to monitor environmental and safety compliance by the contractor, in collaboration with PIC and the contractor's environmental and safety staff.
 - (vii) Ensure preparation of SEMRs by PIC and review, as mandated in the loan agreement, and facilitate their publication in the ADB and project websites.
 - (viii) Conduct comprehensive environmental and safety monitoring throughout all project phases, ensuring adherence to the EMP, CEMP and OHS plan requirements.
 - (ix) Document environmental observations, with PIC support, during site visits, which may include issues like dust, noise, waste disposal, site hygiene, labor camp etc.
 - (x) Promptly address any challenges related to environmental safeguards at various administrative levels.
 - (xi) Validate semi-annual SEMRs and QPRs prepared by PIC prior to their submission to the ADB.
 - (xii) Approve corrective action plans for non-compliances.
 - (xiii) Report to ADB any unanticipated environmental impacts observed during implementation.
 - (xiv) Update the IEE(s) and EMP(s) with assistance from the PIC for any unanticipated impacts. ADB will examine both documents and upload in the website.
 - (xv) Ensure GRM is established and operational from the start of the project.
 - (xvi) Perform other activities relevant with environmental safeguards and safety requirements of ADB and the Nepal Government.
- 75. As needed, international and national environmental experts will be hired to bolster the operational efficiency of the PMU and implementing agencies, focusing on environmental safeguard and safety issues. The environment safeguard and safety specialist of the PIC will monitor and ensure compliance of the environmental safeguards and safety in the project. Key responsibilities of PIC include following:
 - (i) Ensure that schemes and project components adhere to both national policies and the ADB's environmental safeguard standards.
 - (ii) Conduct frequent on-site evaluations to ensure environmental compliance by the contractor, coordinating with PIMS and the contractor's environmental officer.
 - (iii) Record environmental observations during site visits, monitoring aspects such as dust emission, noise levels, waste management, spill control, camp hygiene, and borrow area regulation. Use data for preparation of QPR and SEMRs

- (iv) If environmental risks or hazards are identified, prompt the contractor to initiate immediate corrective measures.
- (v) Perform other tasks to fulfill the environmental safeguards requirements of ADB and Government of Nepal.
- (vi) Offering technical expertise for the implementation of environmental safeguard requirements.
- (vii) Assisting in the preparation of IEE(s) and EMP(s) for new activities in the project.
- (viii) Facilitate the execution of SEMPs, OHS plan and any other requirements in IEE and EARF.
- (ix) Oversee the monitoring of environmental safeguards at subproject sites.
- (x) Conducting environmental inductions for contractors and project staff.
- (xi) Support PMU in timely preparation and submission of environmental monitoring reports to the ADB.
- (xii) Provide support on any environmental and safety management in the project.

76. **Contractor** is responsible for the following:

- (i) Execute the EMP and monitoring quality of compliance of environmental safeguards and safety at all stages of the project.
- (ii) Assign a dedicated Environment, and Health and Safety supervisor who will participate in PMU organized induction workshops and other training/orientations.
- (iii) Conduct environmental safeguard training for all site personnel.
- (iv) Acquire required environmental permits as required.
- (v) Finalize environmental quality monitoring strategies for approval of PMU.
- (vi) Implement mitigation measures outlined in the EMP, documenting their execution.
- (vii) Collect environmental baseline data at construction sites and monitor ongoing conditions such as air and water quality.
- (viii) Maintain compliance with all environmental legal and contractual requirements.
- (ix) Engage in the GRM of the project as a contributing member.
 - Address community or stakeholder grievances swiftly, implementing necessary environmental corrective actions, and report back to the implementing agencies.
 - Collaborate with PIC/PMU to execute any requisite corrective action plans.
- (x) Fulfill additional environmental safeguard tasks as specified in their contract.

77. **ADB** is responsible for the following:

- (i) Review, clear and publish finalized SEMRs on the ADB website.
- (ii) Clarify ADB policy requirements and safeguard provisions detailed in loan and project agreements to the PMU and Executing Agency.
- (iii) Monitor the implementation of EMPs through Missions and SEMRs.
- (iv) Support the PMU in fulfilling their responsibilities and enhance their capacity for safeguard compliance.
- (v) Ensure that subprojects consistently adhere to the directives outlined in the PAM.
- (vi) Provide guidance to the PMU on preparing, formatting, and submitting periodic monitoring reports to ADB as needed.
- 78. **Prohibited investment activities.** Pursuant to ADB's Safeguard Policy Statement (2009), ADB funds may not be applied to the activities described on the ADB Prohibited Investment Activities List set forth at Appendix 5 of the Safeguard Policy Statement (2009).

- 79. **Capacity building.** The proposed capacity building for the ECRFSP includes specific training programs for PMU and implementing agencies. The training will cover a wide range of topics, including ADB's safeguard policies, environmental management, safety preparation, and the proper integration of these practices into project implementation. Additionally, there will be capacity building on monitoring and compliance mechanisms, ensuring PMU and PIC are well-equipped to maintain the project's sustainability and compliance standards.
- Involuntary Resettlement. The project is categorized B for involuntary resettlement as per ADB SPS (2009). The proposed project comprises several subprojects across four outputs, with 11 priority investments identified in outputs 1, 2, and 3. Although land acquisition is not expected, some investments will have civil works. During the detailed design and implementation stages these subprojects may have or cause temporary and minor disturbances, access restrictions, and potential economic impacts. Specifically in subproject locations where agroclimate forecasting instruments will be installed, civil works involving improvement of inland drainage networks and bioswale and installation of measures for the protection of shoreline. In outputs 2 and 4 which involve water modelling study to identify flood hotspots and to prepare appropriate infrastructure detailed designs and investments in climate adaptation business and agriculture, specific impacts are currently unknown, and assessments are yet to be done. Draft due diligence reports (DDR) for outputs 1, 2, and 3 have been prepared, along with a draft resettlement framework (RF) for the project. The RF will serve as the guiding document for preparing resettlement plans (RP) should involuntary resettlement impacts arise or if changes in subproject scopes or unforeseen impacts occur during implementation. All safeguard documents will be disclosed, and a project-specific grievance redress mechanism will be set up to handle, evaluate, and resolve concerns, complaints, and grievances related to the project's social and environmental performance. A Project Management Unit (PMU) will be established with dedicated social staff to support processing and implementation. Safeguards monitoring reports will be prepared, submitted and disclosed, until a project completion report is issued.
- 81. **Resettlement Framework (RF).** RF has been prepared and agreed upon for this project. The RF will be submitted to ADB for review and approval and the final document disclosed on project and ADB websites. The RF will serve as the reference document for preparation of resettlement plan for any involuntary resettlement impacts, and risks identified during project implementation or if there is any change in subproject scopes and to subproject investments to be undertaken across outputs post loan approval. The RF outlines the involuntary resettlement and land acquisition policies and procedures applicable for the project/subprojects in accordance with ADB SPS (2009) and national legislations. The RF document will be reviewed regularly, and if necessary, updated during implementation especially if unanticipated impacts arise or if there is any change in scope or change in legal and regulatory framework. No provision in the RF will be relaxed or lowered in subsequent updates.
- 82. **Resettlement Plan (RP).** An RP will be prepared when involuntary resettlement impact/s are identified during subproject preparation, design, and implementation. The RP describes the identified scope and extent of involuntary resettlement impacts and addresses them through appropriate mitigation measures as stipulated in the project's agreed upon RF. The RP will be updated and reconfirmed for final involuntary resettlement impacts before subproject implementation or construction if there is any change of scope of work. The RF will be submitted to ADB for review and approval and the final document disclosed on project and ADB websites. No subprojects or civil works will be awarded and started before the completion of the final resettlement plan implementation. EA/IA/PMU is responsible for handing over encumbrance free subproject land/site to the contractor.
- 83. **Due Diligence Report (DDR).** The main objective of the DDR is to confirm that the subproject is free of involuntary resettlement impact such as land acquisition, physical

displacement, economic displacement, adverse impact on livelihood, community properties or any other impacts, based on a review of land records, consultations, and field visits to proposed project locations. The DDR will be submitted to ADB for review and approval and the final document disclosed on project and ADB websites. Similarly, DDRs will be prepared for subprojects with no involuntary resettlement impacts, including subproject investments to be undertaken post loan approval. Draft DDRs will be updated based on final detailed design and will confirm involuntary resettlement impact assessment. The updated DDRs will include due diligence on all project components involving civil work and associated facilities, if any and will be based on a combination of desk review, field investigations and meaningful stakeholder consultations. ADB approval will be obtained on the updated DDRs, which will be disclosed on PMU and ADB websites prior to start of civil works. No subprojects will be awarded or proceed to implementation without prior approval of DDR by ADB. EA/IA/PMU is responsible for handing over the subproject site to the contractor free of any encumbrance. Draft DDRs will be updated based on detailed design and will confirm involuntary resettlement impact assessment. The updated DDRs will include due diligence on all project components involving civil work and associated facilities, if any and will be based on a combination of desk review, field investigations and meaningful stakeholder consultations. ADB approval will be obtained on the updated DDRs, which will be disclosed on PMU and ADB websites prior to start of civil works.

- 84. **Indigenous Peoples (category C).** The project is classified category C for indigenous peoples as per ADB's SPS (2009). Project assessments, field visits and consultations do not reveal the presence of any distinctive and separate indigenous peoples in project areas.
- 85. **Institutional Arrangements for Social Safeguards**. The project will be staffed with at least one social safeguards officer/specialist who will be responsible for due diligence assessments, resettlement, safeguard implementation and other social issues in compliance with ADB SPS, 2009 and national laws (refer to RF for institutional arrangements, roles and responsibilities).
- 86. **Grievance Redress Mechanism.** A project specific GRM will be established to receive, evaluate, and facilitate the resolution of affected persons concerns, complaints, and grievances about the social and environmental performance at the level of the project. The GRM will aim to provide a time-bound and transparent mechanism to voice and resolve social and environmental concerns linked to the project. Procedures and arrangements will be detailed in the RF. As agreed by ADB and the borrower, the environmental management plan and resettlement plan (as may be applicable) will be updated from time to time during project implementation, upon availability of detailed engineering design, and to reflect adaptive management of project changes and unforeseen circumstances or in response to project performance, ensuring that standards originally planned are not lowered.

VIII. GENDER EQUALITY AND SOCIAL DIMENSIONS

87. Maldives is one of the most vulnerable nations to climate change and its gender impacts are high, particularly for women in small and remote islands. The women are expected to prioritize care responsibilities, hence the preference to informal employment even if it is characterized with no job security, underemployment and underpayment. They comprise 45% of the 39% total employment in informal economy. Agriculture accounts for 7% of total employment with 9% of the women in its informal sector. About 54% of the rural farmers are women. While recognized for their contributions to food security, they lack technology, resources, and skills to scale-up. Meanwhile, women, disadvantaged youth and other vulnerable groups are further marginalized by the lack of information about weather alerts, forecasts and climate projections due to limited

communication infrastructure accessible to them. MMS do not have also sufficient resources to keep abreast of climate adaptive measures. Key project actions will include: (i) strengthening women's capacities, including women in MMS, to adapt to climate change and participate in disaster response and recovery actions; (ii) supporting them in developing potential and diverse income generating activities using smart and adaptive technologies; and (iii) extending matching grants which aims to increase their resources and voice in business decisions, as well as influence community decisions towards enhancing resilience and food security. The project is categorized as effective gender mainstreaming, and a gender assessment and action plan (GAAP) was prepared. The PMU, through the gender expert, will be responsible for overall GAP implementation, monitoring and reporting of results. Adequate resources will be allocated from project funds to support the successful implementation of GAP.

- 88. Local CSOs were consulted at design for identifying key potential roles of women and youth groups at project design, particularly in community mobilization for increasing awareness and capacities in climate change adaptation measures and disaster response and recovery planning (Output 1); mangrove restoration (Output 2) and targeting women and youth-led groups for potential provision of matching grants to implement climate smart businesses or services (Outputs 3 and 4). Approaches and depths of participation of civil society organizations (CSOs) are as follows: Medium (M) on information generation and sharing; M on consultation; Not applicable (NA) on collaboration; and NA on Partnership.
- 89. The project will provide start-up grants related to climate adaptation businesses and services and urban farming including to farmer groups and civil society organizations (CSOs). At least 30% of the proposals approved and extended matching grants are for women or youth-groups. (see Appendix 9, GAAP indicator 3e). Applications will be invited nationwide through calls for proposals including through NGOs to reach out to potential applicants in order to collect substantial number of quality proposals. Women-led local CSOs and other relevant island-based CSOs will be mobilized to participate in the skilling on climate change adaptation and local disaster risk reduction planning. Representative from local NGO will be a member in the Island GRC.
- 90. The will provide grants project start-up related to climate adaptation businesses and services and urban farming including to farmer groups and civil society organizations (CSOs). At least 30% of the proposals approved and extended matching grants are for women or youth-groups. Applications will be invited nationwide through calls for proposals including through NGOs to reach out to potential applicants in order to collect substantial number of quality proposals. Women-led local CSOs and other relevant island-based CSOs will be mobilized to participate in the skilling on climate change adaptation and local disaster risk reduction planning. Representative from local NGO will be a member in the Island GRC.

IX. PERFORMANCE MONITORING, EVALUATION, REPORTING, AND COMMUNICATION

A. Monitoring

91. **Project performance.** The achievement of the project performance targets will be assessed following the design and monitoring framework. The PMU will monitor the project's performance quarterly and provide consolidated reports to ADB. These reports will include (i) each activity's progress measured against the implementation schedule, (ii) key implementation issues and solutions, (iii) disaggregated data for output and outcome indicators, (iv) an updated implementation plan for the next 12 months, and (v) safeguards issues. These

quarterly reports will provide information necessary to update ADB's project performance reporting system. ADB will conduct regular review missions to discuss project progress against the DMF and resolve any project implementation issues/concerns.

- 92. **Compliance.** The PMU will monitor and ensure project compliance with policy, legal, financial, economic, social, environmental, and other loan covenants. All non-compliance issues, if any, will be reported and remedial actions monitored in quarterly progress reports. Each ADB review mission, at least once a year, will also monitor the status of compliance with the loan assurances, raise any noncompliance issues with the government and agree on remedial actions.
- 93. **Safeguards.** Safeguards monitoring will be the responsibility of the PMU, which will oversee and report on safeguards implementation. This will involve incorporation of updates on safeguards implementation status and compliance in the quarterly progress reports (including safeguards feedback, land use and donation), if any. Additionally, the PMU will provide a separate semiannual report on safeguards monitoring to ADB within 30 days after the end of each reporting period. These reports will undergo review and be made public on ADB's website. PMU will continue submitting safeguards monitoring reports to ADB semiannually until ADB issues a Project Completion Report.
- 94. **Gender equality and social dimensions**. The PMU will be the gender focal point with a gender focal person and gender expert supporting the GAP implementation, monitoring and reporting on results: (i) internal monthly progress reports and (ii) quarterly GAP reports, in the prescribed format to be submitted to ADB (see template in Appendix 6). Data will be disaggregated by sex and age. A GAP completion report was prepared and submitted at project completion. ADB will assess the results during review missions.
- 95. Financial management. The status of the financial management action plan, financial covenants, financial sustainability risks, and financial reporting and auditing will be reported and reviewed throughout project implementation. The financial management and sustainability risks and mitigating actions will be reassessed regularly during implementation. The financial management action plan will be updated at least annually.

B. Evaluation

- 96. **Inception and review missions**. ADB will conduct an inception mission when the loan and grants become effective. ADB and the government will jointly field review missions of the project twice a year. The missions will: (i) review overall implementation of the project and update, in consultation with the executing agency, the project implementation schedule; (ii) examine existing and potential implementation problems, and find out measures with the executing agency to resolve them; (iii) review progress in procurement and disbursement; (iv) review the loan recipient's compliance with loan covenants The missions will: (i) review overall implementation of the project and update, in consultation with the executing agency, the project implementation schedule; (ii) examine existing and potential implementation problems, and find out measures with the executing agency to resolve them; (iii) review progress in procurement and disbursement; (iv) review the loan recipient's compliance with loan covenants and, where there is any noncompliance or delay, discuss proposed remedial measures; and (v) assess the likelihood of attaining the project's outcome.
- 97. **Midterm review mission.** ADB and the government will undertake a midterm review on the third year of project implementation, to assess implementation status, identify problems and constraints encountered and suggested measures to address them including modification of scope and implementation arrangements, implementation schedule, compliance with safeguards and other covenants, and reallocation of loan and grant proceeds, as appropriate—to achieve the project's outcomes and impact.

- 98. **Project completion review mission.** A final ADB review mission will take place within six months after physical completion of the project. This mission will: (i) assess project performance against targets and benchmarks including any revision(s) as agreed during the midterm review; (ii) identify any incomplete activities, or unused project funds; and (iii) determine the project satisfactory rating. A project completion report will be prepared, in cooperation with the government. In case the project is selected as a sample of projects for project performance evaluation reporting, the project will be subject to more detailed performance evaluation and impact assessment about three or more years after completion.
- 99. **Completion report.** Within 6 months of physical completion of the project, PMU will submit a project completion report to ADB. MOAAW will submit a project completion report of their activities to PMU/MOCCEE within 5 months of physical completion. PMU will submit consolidated reports to ADB. ADB will share the template with PMU in advance.
- 100. **Reporting.** The executing agency will provide ADB with (i) quarterly progress reports in a format consistent with ADB's project performance reporting system and should include the project's financial progress, showing periodic and cumulative amounts of budgeted and actual sources and uses of funds (covering the total project cost) following the cost categories in the project administration manual and reconciled with ADB's records; (ii) consolidated annual reports including (a) progress achieved by output as measured through the indicator's performance targets, (b) key implementation issues and solutions, (c) updated procurement plan, and (d) updated implementation plan for the next 12 months; and (iii) a project completion report within 6 months of physical completion of the project. To ensure that projects will continue to be viable and sustainable, project financial statements, together with the auditor's report, should be adequately reviewed. Table 21 summarizes the key reporting requirements.

Table 21: ADB's Key Reporting Requirements

Report	Timing
Audited project financial statements	Not later than 6 months after the closure of the fiscal year
Quarterly project progress reports	Quarterly, within 30 days after the end of each reporting period
Social Safeguards Monitoring Report	Semi-annual within 30 days of end of each reporting period
Environmental Monitoring Report	Semi-annual, within 30 days after the end of each reporting period
Project completion report	Not later than 6 months after physical completion of the project

ADB = Asian Development Bank.

Source: ADB.

C. Stakeholder Communication Strategy

101. Extensive stakeholder analysis at national, island and community levels was conducted as part of project preparatory activities and taken into account in the development of the TOR for the Communication/Behavioral Change Specialist, part of the Project Management Unit, who will lead the design, implementation, monitoring and evaluation of the communication and behavioral change program supported under the project. The Specialist will support the gender focal in implementation of key components of the GAP particularly in community mobilization and capacity building programs for island councils, women and youth groups, WDCs, PMU and other stakeholders. Good practices and strategic approaches in mobilization should be documented for purposes of learning, and potential scale-up or replication. All communication will be in a language

suitable for the target audience and will follow ADB's Public Communication Policy 2011 and ADB's Access to Information Policy, 2018.

102. Project information will be strategically disseminated through media at main milestones including grant signing, contract awards and project completion. MOCCEE will make available all information relevant to the public through its website. This will include at a minimum the following information: (i) calls for bids including terms of reference and bidding documents; (ii) project progress Information; (iii) educational and awareness materials developed under the project; (iv) study reports prepared under the project; and (v) event briefs and activities held under the project. The communication strategy should be revised and updated periodically during the project to reflect the changing implementation situation.

X. ANTICORRUPTION POLICY

- Implementation of the project shall adhere to ADB's Anticorruption Policy (1998, as amended from time to time) and Integrity Principles and Guidelines (2015, as amended from time to time). ADB has the right to investigate, directly or through its agents, any violations of the Anticorruption Policy relating to the project. All contracts financed by ADB shall include provisions specifying that (i) the contracts are ADB financed; (ii) ADB's Anticorruption Policy and Integrity Principles and Guidelines apply: (iii) the executing and implementing agencies and all project contractors, suppliers, consultants (including lead firms and sub-consultants), and other service providers shall permit ADB to review and inspect their accounts and records and other documents relating to the bid submission and contract performance and to have them audited by auditors appointed by ADB; and (iv) the project contractors, suppliers, consultants (including lead firms and sub-consultants), and other service providers undertake that no fees, gratuities, rebates, gifts, commissions, or other payments other than those shown in the bid have been offered, given, or received in connection with the procurement process or in the contract execution. Individuals and entities on ADB's complete Sanctions List14 are ineligible to participate in ADBfinanced, -administered, and -supported activity and cannot be awarded any contracts under the project. 15 The project team and the executing agency should obtain endorsement from the Office of Anticorruption and Integrity before the effectivity or approval of any contract variation involving a debarred or temporarily suspended firm or individual in ADB's complete Sanctions List, regardless of the nature or cost of contract variation.
- 104. Underpinned by ADB's zero tolerance for corruption, the Office of Anticorruption and Integrity aligns with ADB's commitment to strengthen governance across Asia and the Pacific. To report a complaint of integrity violations to ADB's Office of Anticorruption and Integrity, please visit https://www.adb.org/who-we-are/integrity/report-integrity-violations.
- 105. To support these efforts, relevant provisions are included in the loan and grant agreements and the bidding documents for the project.

XI. ACCOUNTABILITY MECHANISM

106. People who are, or may in the future be, adversely affected by the project may submit complaints to ADB's Accountability Mechanism. The Accountability Mechanism provides an independent forum and process whereby people adversely affected by ADB-assisted projects can voice and seek a resolution of their problems, as well as report alleged violations of ADB's operational policies and procedures. Before submitting a complaint to the Accountability

¹⁴ ADB. Sanctions List; and ADB. Frequently Asked Questions on ADB Sanctions.

¹⁵ ADB. Procurement Regulations for ADB Borrowers; and ADB. Office of Anticorruption and Integrity.

Mechanism, affected people should make an effort in good faith to solve their problems by working with the concerned ADB operations department. Only after doing that, and if they are still dissatisfied, should they approach the Accountability Mechanism.¹⁶

XII. RECORD OF CHANGES TO THE PROJECT ADMINISTRATION MANUAL

- 107. All revisions and/or updates during implementation should be retained in this section to provide a chronological history of changes to implemented arrangements recorded in the PAM, including revisions to contract awards and disbursement S-curves. Any changes, revisions, and updates in the gender action plan should also be recorded in this section.
- 108. If changes in the PAM require ADB's approval, the proposed changes by the government need to be recorded in the memorandum of understanding or aide-mémoire. Upon such approval, changes will be incorporated in the PAM.

¹⁶ ADB. Accountability Mechanism.

DESIGN AND MONITORING FRAMEWORK

Impact the Project is Aligned with
Climate and disaster resilience and long-term food and nutrition security improved (*Update of Nationally Determined Contribution of Maldives*)^a

Results Chain	Performance Indicators	Data Sources and Reporting	Risks and Critical Assumptions
	D 0004	Mechanisms	
Outcome Vulnerability of island communities to climate risks reduced	By 2031 a. At least 20,000 people in Haa Dhaalu and Addu atolls benefitted from improved weather, climate, and early warning information (2024 baseline: 0) (OP2.5, OP3.2, OP4.1) b. At least 10,000 people in	a.–d. Project quarterly progress reports, community survey reports, MTR and endline assessments	A: Subsequent strategic action plans of the Government of Maldives continue to mainstream climate change.
	Kulhudhuffushi protected from inland and coastal floods (2024 baseline: 0) (OP 1.3.1, OP3.2, OP3.2.1) c. At least 50% of households in the project area have regular consumption of fresh vegetables and fruits from home gardens, local farms, and community farms (2024 baseline: 29%) (OP3.2, OP5.1) d. At least 100 new adaptation-related businesses and services established (2024 baseline: 0) (OP 1.2.1, OP3.2, OP5.1)		A: The government remains committed to maintaining the assets and knowledge acquired through the project. R: Macroeconomic and external shocks restrict the ability of the government and the private sector to execute planned investments.
Outputs 1. Institutional and community capacity for climate adaptation improved	By 2029 1a. Weather radar system in Addu City for real-time precipitation monitoring installed and operational (2024 baseline: NA) (OP3.2.5, OP4.3)	1a.–1b. Project quarterly progress reports	A: Communities are receptive to new information related to climate change.
піріочец	1b. Existing weather radar system in Malé upgraded and made operational (2024 baseline: NA) (OP4.3.2.5) 1c. At least 50% of MMS staff (30% of them women) trained and reporting improved knowledge of weather monitoring, forecasting, and early warning system (2024 baseline: 0) (OP4.3.2, OP6.1.1) 1d. At least 50% of residents (45% of them women and vulnerable people) reported improved skills relating to climate change adaptation and disaster risk reduction (2024 baseline: 0) (OP2.5.1, OP3.2.2)	1c.–1d. Pre- and post-training assessment	R: Political instability and global price volatility lead to an increase in project costs and delays in project completion.

Results Chain	Performance Indicators	Data Sources and Reporting Mechanisms	Risks and Critical Assumptions
2. Effective flood and coastal protection with nature-based solutions	2a. At least four flood mitigation and coastal management subprojects in Kulhudhuffushi island completed ^c (2024 baseline: 0) (OP1.3.1, OP3.2.5, OP4.1.2)	2a. Project quarterly progress reports	
implemented ^b	2b. A drainage management plan and mangrove restoration management plan for Kulhudhuffushi developed and submitted to Ministry of Climate Change, Environment and Energy for adoption (2024 baseline: NA) (OP3.2.1, OP3.2.4)	2b. Drainage management plan and mangrove restoration management plan	
3. Climate-smart technologies and practices in agri-food systems promoted ^d	By 2030 3a. A multipurpose facility building built to house a training facility, a basic laboratory, and an office for the Hanimaadhoo Agriculture Center (2024 baseline: NA) (OP5.3.2) 3b. 2,000 smallholder farmers (50% women) increased knowledge of climatesmart and water-saving agriculture practices and agribusiness developmenter (2024 baseline: 0) (OP2.3.2, OP5.3.2)	3a.–3b. Project quarterly progress reports; pre- and post- training assessments	
	By 2029 3c. 500 proposals (30% from women- and youth-led groups) on climate-smart technologies developed and submitted for funding (2024 baseline: 0) (OP2.3.2, OP5.3.2)	3c. Final proposals	
4. Climate adaptation businesses and services, and urban farming implemented	By 2030 4a. Matching grant proposals for at least 300 (30% women-led) new climate adaptation-related businesses and services approved and implementation started (2024 baseline: NA) (OP3.2, OP5.1, OP2.5.4)	4a. Project quarterly progress reports; grant agreements	

Key Activities with Milestones

- 1. Institutional and community capacity for climate adaptation improved
- 1.1 Procure civil works to install weather radar system in Addu (Q4 2024–Q42025)
- 1.2 Undertake civil works to install weather radar system in Addu (Q2 2025–Q3 2027)
- 1.3 Procure civil works to repair the existing weather radar system in Malé (Q4 2024–Q2 2025)
- 1.4 Undertake civil works to repair the existing weather radar system in Malé (Q2 2025–Q4 2026)
- 1.5 Design and deliver a capacity building program to strengthen the capacity of MMS for weather monitoring, forecasting, and early warning (Q4 2026–Q4 2029)
- 2. Effective flood and coastal protection with nature-based solutions implemented
- 2.1 Conduct environmental and hydraulic modeling studies on marine, coastal, and groundwater hydrology (Q3 2025–Q1 2026)
- 2.2 Conduct detailed designs of pluvial flood and coastal protection investments undertaken (Q1–Q3 2026)

Key Activities with Milestones

- 2.3 Procure and award works for the selected subprojects (Q4 2026–Q4 2027)
- 2.4 Carry out flood prevention and coastal management civil works (Q2 2027–Q3 2030)
- 3. Climate-smart technologies and practices in agri-food system promoted
- 3.1 Design and procure construction of a multipurpose building to house a training facility, a simple laboratory for
 - soil and pathogen testing, and an office space for HACf (Q4 2025–Q4 2026)
- 3.2 Carry out training and extension advisory programs, and associated capacity building for urban home gardeners, farmers, cooperatives, women's development committees, civil society organizations, and women
 - and young agribusiness entrepreneurs; (Q2 2025-Q4 2030)
- 3.3 Provide technical advisory services for urban farming and agribusiness proposal development and implementation, including market link development and adoption of climate-smart horticultural technologies

for increased profit and income generation (Q2 2025–Q2 2030)

4. Climate adaptation businesses and services, and urban farming implemented

- 4.1 Finalize the matching grant operational guidelines (Q3–Q2 2026)
- 4.2 Evaluate and approve grant proposals (Q1 2026–Q4 2029)
- 4.3 Monitor the implementation of the matching grant-supported projects (Q4 2026–Q4 2030)

Project Management Activities

Form the PMU and the project steering committee for interministerial coordination, and recruit PMU staff (Q1 2025)

Recruit and mobilize project implementation consultants (2025–2026)

Procure goods and works (Q4 2024–Q4 2027)

Implement the EMP and submit semiannual environmental monitoring reports to ADB (2025–2030) Implement the gender action plan (2025–2030)

Prepare quarterly and annual progress reports (2025–2030)

Inputs

Asian Development Bank

Concessional ordinary capital resources: \$4.00 million (loan)

Asian Development Fund: \$17.95 million (grant)⁹

Technical Assistance Special Fund (TASF 7): \$0.50 million (grant)

Government: \$1.97 million

Japan Fund for Prosperous and Resilient Asia and the Pacific: \$3.0 million (project grant)^d

Ocean Resilience and Coastal Adaptation Financing Partnership Facility: \$1 million (project grant) and \$1 million (TA grant)

A = assumption, ADB = Asian Development Bank, EMP = environmental management plan, HAC = Hanimaadhoo Agriculture Center, MMS = Maldives Meteorological Service, MTR = midterm report, NA = not applicable, OP = operational priority, PMU = project management unit, R = risk, TA = technical assistance.

- ^a Republic of Maldives, Ministry of Environment. 2020. <u>Update of Nationally Determined Contribution of Maldives</u>. The nationally determined contribution is outlined in the following policy document: Republic of Maldives, Ministry of Environment and Energy. 2015. <u>Climate Change Policy Framework</u>.
- ^b Includes urban agriculture, weather forecasting, early warning system, drone-based coastal management services, nature-based flood mitigation services.
- ^c Indicative subprojects include inland drainage network improvement, coastal protection measures for the eastern shoreline and northwest beach, and northern and southern mangrove interconnection and connection to the sea.
- ^d Output 3 will be supported by the JFPR grant.
- e Includes technical advisory services, training, farm demonstration, and market access assistance.
- f Multipurpose facility at HAC includes a training center, office, and a basic plant pathology laboratory.
- ⁹ Includes a \$15 million grant from the Asian Development Fund (ADF) 13 thematic pool's disaster risk reduction and climate adaptation strategic area, and \$2.95 million from ADF 13 country allocation from savings and cancellations.

Source: Asian Development Bank.

DETAILED COST ESTIMATES BY EXPENDITURE CATEGORY

		(Rufiya	a million)			(US\$ million)			% of Base Cost
Item	Foreign Exchange	Local Currency	Taxes and Duties	Total Cost	Foreign Exchange	Local Currency	Taxes and Duties	Total Cost	
A. Investment Costs									
Civil Works (Others)	41.09	28.27	5.55	74.91	2.66	1.83	0.36	4.85	19.5
Civil Works (inland drainage network improvement)	25.97	60.59	6.92	93.49	1.68	3.92	0.45	6.05	24.4
Civil Works (nature-based solutions)	13.67	_	1.09	14.77	0.88	_	0.07	0.96	3.9
Machinery, Equipment and Vehicles	57.75	0.15	4.63	62.54	3.74	0.01	0.30	4.05	16.3
HAC (civil work, laboratory equipment, and capacity building)	41.02	_	3.28	44.30	2.65	_	0.21	2.87	11.6
Matching Grant	19.33	_	-	19.33	1.25	_	-	1.25	5.0
Capacity Development Program	2.22	0.09	0.18	2.49	0.14	0.01	0.01	0.16	0.7
Consulting Services	39.39	2.45	3.35	45.18	2.55	0.16	0.22	2.92	11.8
Subtotal (A)	240.43	91.56	25.01	357.00	15.55	5.92	1.62	23.09	93.1
B. Recurrent Costs									
PMU Salaries	16.72	2.78	1.56	21.06	1.08	0.18	0.10	1.36	5.5
Other Project Management Costs ^a	1.76	3.19	0.40	5.34	0.11	0.21	0.03	0.35	1.4
Subtotal (B)	18.48	5.97	1.96	26.41	1.20	0.39	0.13	1.71	6.9
Total Base Cost	258.91	97.53	26.97	383.41	16.75	6.31	1.74	24.80	100.0
C. Contingencies									
Physical	25.87	10.53	-	36.41	1.67	0.68	0.00	2.36	9.5
Price	5.55	2.74	-	8.28	0.36	0.18	0.00	0.54	2.2
Subtotal (C)	31.42	13.27	0.00	44.69	2.03	0.86	0.00	2.89	11.7
D. Financing Charges During Implementation									
Interest during construction	3.52	-	-	3.52	0.23	0.00	0.00	0.23	0.9
Subtotal (D)	3.52	-	-	3.52	0.23	-	-	0.23	0.9
Total Project Costs (A+B+C+D)	275.37	104.83	25.01	431.62	17.81	6.78	1.62	27.92	112.6

Source: Asian Development Bank.

Note: Numbers may not sum precisely because of rounding.

a Includes estimated audit fees of \$60,000 for the internal audit of the project to be financed from ADB Asian Development Fund proceeds.

DETAILED COST ESTIMATES BY FINANCIER (\$ million)

ltem	ADF13 G	rant	Conces			JFPR	0	cean Fund		Governr Mald		Taxes & Duties	Total
	Amount	% of Cost	Amo		% of Cost	Amount	% of Cost Amo	ount % of A	Amount	% of Cost			Total
A. Investment Costs													
Civil Works (Others)	4.49	92.6	0.00	0.0	0.00	0.0	0.00	0.0	0.36	7.4	0.36	7.4	4.85
Civil Works (Inland drainage network improvement)*	2.08	34.4	3.52	58.2	0.00	0.0	0.00	0.0	0.45	7.4	0.45	7.4	6.05
Civil Works (nature-based solutions)	0.00	0.0	0.00	0.0	0.00	0.0	0.88	92.6	0.07	7.4	0.07	7.4	0.96
Machinery, Equipment and Vehicles	3.75	92.6	0.00	0.0	0.00	0.0	0.00	0.0	0.30	7.4	0.30	7.4	4.05
HAC (civil work, laboratory equipment, and capacity building)	0.00	0.0	0.00	0.0	2.65	92.6	0.00	0.0	0.21	7.4	0.21	7.4	2.87
Matching Grant	1.25	100.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	1.25
Capacity Development Program	0.15	92.6	0.00	0.0	0.00	0.0	0.00	0.0	0.01	7.4	0.01	7.4	0.16
Consulting Services	2.71	92.6	0.00	0.0	0.00	0.0	0.00	0.0	0.22	7.4	0.22	7.4	2.92
Subtotal (A)	14.42	62.4	3.52	15.2	2.65	11.5	0.88	3.8	1.62	7.0	1.62	7.0	23.09
B. Recurrent Costs PMU Salaries	1.26	92.6	0.00	0.0	0.00	0.0	0.00	0.0	0.10	7.4	0.10	7.4	1.36
Other Project Management Costs	0.32	92.6	0.00	0.0	0.00	0.0	0.00	0.0	0.03	7.4	0.03	7.4	0.35
Subtotal (B)	1.58	92.6	0.00	0.0	0.00	0.0	0.00	0.0	0.13	7.4	0.13	7.4	1.71
Total Base Cost	16.00	64.5	3.52	14.2	2.65	10.7	0.88	3.6	1.74	7.0	1.74	7.0	24.80
C. Contingencies													
Physical	1.59	67.6	0.38	16.1	0.29	12.2	0.10	4.1	0.00	0.0	0.00	0.0	2.36
Price	0.36	67.5	0.10	18.3	0.06	10.7	0.02	3.6	0.00	0.0	0.00	0.0	0.54
Subtotal (C) D. Financing Charges During Implementation	1.95	67.6	0.48	16.5	0.34	11.9	0.12	4.0	0.00	0.0	0.00	0.0	2.89
Interest during construction		0.0		0.0		0.0		0.0	0.23	100.0	0.00	0.0	0.23
Subtotal (D)	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.23	100.0	0.00	0.0	0.23
Total Project Costs (A+B+C+D)	17.95	64.3	4.00	14.3	3.00	10.7	1.00	3.6	1.97	7.1	1.74	6.2	27.92
% Total Project Cost		64.3		14.3		10.7		3.6		7.1			

ADF = Asian Development Fund, OCR = ordinary capital resources, ORCATF = Ocean Resilience and Coastal Adaptation Financing Partnership Facility. Notes: Numbers may not sum precisely because of rounding.

^{*} ADB ADF grant proceeds are to be frontloaded, with ADB ADF and thereafter OCR paying for eligible expenditures up to 100% (excluding taxes & duties) of every claim received, as long as sufficient undisbursed loan and grant amounts remain.

Source: Asian Development Bank.

DETAILED COST ESTIMATES BY OUTPUTS AND/OR COMPONENTS

(\$ million)

ltem	Output 1: Ca awareness to pl respond to cli strengt	an, adapt, and mate change	Output 2: Infra nature-based flood and coas and mangrove develo	solutions for tal protection e restoration	utions for protection agri-food system enhanced adaptation business and services developed.		Project Manaç	Project Management			
	Amount	% of Cost	Amount	% of Cost	Amount	% of Cost	Amount	% of Cost	Amount	% of Cost	Amount
A. Investment Costs											
Civil Works (Others)	0.69	14.3	4.15	85.7	0.00	0.0	0.00	0.0	0.00	0.0	4.85
Civil Works (inland drainage network improvement)	0.00	0.0	6.05	100.0	0.00	0.0	0.00	0.0	0.00	0.0	6.05
Civil Works (nature-based solutions)	0.00	0.0	0.96	100.0	0.00	0.0	0.00	0.0	0.00	0.0	0.96
Machinery, Equipment and Vehicles	3.94	97.3	0.11	2.7	0.00	0.0	0.00	0.0	0.00	0.0	4.05
HAC (civil work, laboratory equipment, and capacity building)	0.00	0.0	0.00	0.0	2.87	100.0	0.00	0.0	0.00	0.0	2.87
Matching Grant	0.00	0.0	0.00	0.0	0.00	0.0	1.25	100.0	0.00	0.0	1.25
Capacity Development Program	0.12	74.5	0.04	25.5	0.00	0.0	0.00	0.0	0.00	0.0	0.16
Consulting Services	0.38	13.1	0.00	0.0	0.00	0.0	0.00	0.0	2.54	86.9	2.92
Subtotal (A)	5.13	22.2	11.31	49.0	2.87	12.4	1.25	5.4	2.54	11.0	23.09
B. Recurrent Costs											
PMU Salaries	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	1.36	100.0	1.36
Other Project Management Costs	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.35	100.0	0.35
Subtotal (B)	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	1.71	100.0	1.71
Total Base Cost	5.13	20.7	11.31	45.6	2.87	11.6	1.25	5.0	4.25	17.1	24.80
C. Contingencies											
Physical	0.51	21.8	1.13	48.0	0.29	12.2	0.00	0.0	0.42	18.0	2.36
Price	0.11	19.8	0.28	51.9	0.06	10.7	0.00	0.0	0.09	17.6	0.54
Subtotal (C) D. Financing Charges During Implementation	0.62	21.4	1.41	48.7	0.34	11.9	0.00	0.0	0.52	18.0	2.89
Interest during construction									0.23	100.0	0.23
Subtotal (D)	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.23	100.0	0.23
Total Project Costs (A+B+C+D)	5.75	20.6	12.71	45.5	3.21	11.5	1.25	4.5	5.00	17.9	27.92

Note: Numbers may not sum precisely because of rounding. Source: Asian Development Bank.

DETAILED COST ESTIMATES BY YEAR

(\$ million)

Item	2025	2026	2027	2028	2029	2030	Total
A. Investment Costs							
Civil Works (Others)	0.17	0.42	1.17	1.14	1.68	0.27	4.85
Civil Works (inland drainage network improvement)	0.21	0.52	1.45	1.43	2.10	0.34	6.05
Civil Works (nature-based solutions)	0.03	0.08	0.23	0.23	0.33	0.05	0.96
Machinery, Equipment and Vehicles	0.14	0.35	0.97	0.96	1.40	0.23	4.05
HAC (civil work, laboratory equipment, and capacity building)	0.10	0.25	0.69	0.68	0.99	0.16	2.87
Matching Grant	0.04	0.11	0.30	0.30	0.43	0.07	1.25
Capacity Development Program	0.01	0.01	0.04	0.04	0.06	0.01	0.16
Consulting Services	0.10	0.25	0.70	0.69	1.01	0.16	2.92
Subtotal (A)	0.79	1.99	5.56	5.45	8.00	1.30	23.09
B. Contingencies							
PMU Salaries	0.05	0.12	0.33	0.32	0.47	0.08	1.36
Other Project Management Costs	0.01	0.03	0.08	0.08	0.12	0.02	0.35
Subtotal (B)	0.06	0.15	0.41	0.40	0.59	0.10	1.71
Total Base Cost	0.85	2.13	5.97	5.86	8.60	1.39	24.80
C. Contingencies							
Physical	0.08	0.20	0.57	0.56	0.82	0.13	2.36
Price	0.02	0.05	0.13	0.13	0.19	0.03	0.54
Subtotal (C)	0.10	0.25	0.70	0.68	1.00	0.16	2.89
D. Financing Charges During Implementation							
Interest during construction	0.01	0.02	0.05	0.05	0.08	0.01	0.23
Subtotal (D)	0.01	0.02	0.05	0.05	0.08	0.01	0.23
Total Project Costs (A+B+C+D)	0.96	2.40	6.72	6.59	9.68	1.57	27.92
% Total Project Cost	3.44	8.60	24.06	23.62	34.66	5.61	100.00

Note: Numbers may not sum precisely because of rounding. Source: Asian Development Bank.

PROGRESS REPORT TEMPLATE

[cover page]
Loan: xx
Quarterly Progress Report
(January–March 20xxx)

Executing and Implementing Agency

Contents

Chapter 1	Project at A Glance
Chapter 2	Status of the Executing Agency and Consultant(s) Staffing
Chapter 3	Status of Input(s) (Procurement and Consultant Recruitment)
Chapter 4	Progress on Project Output(s)
Chapter 5	Progress on GAP
Chapter 6	Status of Last Action Plan
	(Previous ADB Review Mission/TPRM / last Progress Report)
Chapter 7	Status of Major Loan Covenants
Chapter 8	Key Implementation Challenges and Proposed Actions
Chapter 9	Financial Management

Attachment 1: Statement of Receipts and Payments for the Quarter/Period Ended XXXX

Attachment 2: Statement of Expenditure by Category and Financier

Attachment 3: Statement of Disbursement

Attachment 4: Detailed reconciliation (by Withdrawal application) of project records and ADB

disbursement records (LFIS/GFIS) for the fiscal year to date and cumulative

Attachment 5: List of Signed Contracts

Attachment 6: Status of Internal and External Audit Observations - Cumulative from Inception to End of

Reporting Period

Attachment 7: Status of Financial Management Action Plan implementation

Attachment 8: Status of FM related actions agreed during ADB review missions or TPRMs Attachment 9: Details of fixed assets created and corresponding maintenance schedule

CHAPTER 1 PROJECT AT A GLANCE

Brief project description to be filled by project team (one-time entry; to be update only in case of change)

1. LOAN MILESTONE

Milestone	Approval	Signing	Effective	Orig. Closing	Rev. Closing
Dates					
Extensions (Nos)				Time Remaining	

2. LOAN UTILIZATION STATUS (\$MILLION)

Cat.	Description	Allocation	Contracts	Unutilized	Disbursed	Undisb.	Overall
				loan		Contract	Undisbursed
				balance		balance	
		(a)	(b)	(c) =(a-b)	(d)	(e)=(b-d)	(f)=(a-d)

3. POTENTIAL LOAN SAVINGS (IF ANY) AND LIKELY CANCELLATION DATE

4. STATUS OF COUNTERPART FUNDS (\$ MILLION)

Required Counterpart Expenditure by the Executing Agency	Budgeted by State Govt. in Current Financial Year	Actual Amount Released	Shortfall /Excess
1.Non-reimbursables Activities fully funded			
by the executing agency (LA/R&R etc.)			
2. Reimbursable			
(from loan)			

5. STATUS OF CONTRACT AWARDS AND DISBURSEMENTS (\$ MILLION) IN CY XXXX

Indicator	Quarter	I	=	≡	IV	Total
Contract	Target					
Award	Achieved					
	Balance					
Disbursement	Target					
	Achieved					
	Balance					

[Targets – for the ADB financing compare the actual disbursement with the disbursement projections as per the S curve included in the PAM), Include an analysis of significant variances between planned and actual disbursements; and]

6. STATUS OF PROJECT REPORTS TO BE SUBMITTED TO ADB

Type of Reports	Frequency	Due Date	Status
Environmental Monitoring Report			
Audited Project Accounts			
GAP Monitoring Report			

CHAPTER 2 STAFFING

1. STATUS OF PMU/PIU STAFFING

1 a	Is the Project Director (PD) currently posted?	Yes/No	Nature of PD posting	Part Time/Full Time
1 b	Current PD is posted since when?	xx		
2 a	No. of PMU staff as agreed with	xx	Actual no. of PMU staff in place at present.	
Za	a ADB or as per Org Structure in PAM/FAM/RRP.		Full Time	
			Additional Charge	
2 b	Details of PMU Positions which are currently vacant.	-		
3 a	Are PIUs required to be established in the Project?	Yes/No	Are PIUs fully staffed	
3 b	No. of PIUs required as agreed with ADB in Org Structure in PAM/FAM/RRP	11	Actual no. of PIUs	

2. MOBILIZATION STATUS OF CONSULTANT'S STAFFING (KEY EXPERT POSITIONS) AND THEIR PERFORMANCE

(Please provide your overall feedback in narrative statement e.g. key issues overall performance etc. and attach staffing status and Consultant's Performance Evaluation Report (PER): Attachment 2 & 3)

CHAPTER 3 STATUS OF PROCUREMENT & CONTRACT MANAGEMENT

1. Status of Contracts Awarded

Cost Category under which Procurement is carried out	ADB Financing	Cumulative Contract Awards	Uncontracted Loan Balance	Cumulative Disbursements
Civil Works	\$ million	\$ million (xx Pkgs awarded)	\$ million	\$ million
Equipment	\$ million	\$ million (xx Pkgs awarded)	\$ million	\$ million
Consultants	\$ million	\$ million (xx Pkgs awarded)	\$ million	\$ million
Total	\$ million	\$ million	\$ million	\$ million

(Please attach Contract Monitoring Sheet indicating status of each of the awarded contracts in Attachment 1)

2. Status of Remaining Procurement

SN	Component	Remaining Contract Packages					
		No of pkgs with cost	Brief Scope	Current Stage	Target Date of Award		
1	Civil Works	xx (\$ million)	km of road rehabilitation/ house service connections in xx towns	 - IFB to be issued - Under Tech Evaluation - Under Fin. Evaluation -Under Contract Negotiation - Under Contract Signing 	MM/YYYY		
2	Equipment	xx (\$million)			MM/YYYY		
3	Consultants	xx (\$million)			MM/YYYY		
	Total xx Packages	\$xx million			(Target date of the latest procurement)		

CHAPTER 4 PROGRESS ON PROJECT OUTPUTS (AS IN DMF)

Output	Monitoring	Progress		Remarks
	Indicators/Targets	Last Quarter	Current Quarter	
				eligibility

Detailed status of ongoing contracts is in Attachment 1.

CHAPTER 5 STATUS OF GENDER ACTION PLAN

Performance indicators (Activities and targets)	Contract package No.	Resp	onsibi	lity	Timelines	Progress for the Current Quarter (Progress in the current quarter)	Cumulative Progress (Consolidated progress of current and past quarters)	Issues and Challenges
Output1 1 (state	e Output 1)						
1a. State indica	itor							
1b. State indica	itor							
Output1 2 (state	Output1 2 (state Output 2)							
1a. State indica	itor							
1b. State indica	itor							

Prepared by:	 	 	 	
Date:				

CHAPTER 6 STATUS OF ACTION PLAN

(Please include issues previously discussed during previous ADB Review Missions/TPRM/Progress Report and their compliance/status)

SN	Issues/ Action Plan	Responsibility	Time Frame	Status

CHAPTER 7 COMPLIANCE WITH MAJOR COVENANTS

S.N.	Covenants	Compliance (Y/N) *	Remarks
1			
2			
3			
4			
5			

^{*}In case of any exceptions, deviations, non-adherence identified, please provide details as an "Annexure" to the Quarterly Project Report highlighting the shortcomings and proposed time-bound corrective action plans to achieve compliance.

CHAPTER 8 (KEY IMPLEMENTATION ISSUES/ CHALLENGES AFFECTING PROJECT PROGRESS AND PRPOSED ACTIONS)

S.N.	MAJOR ISSUES*	Actions	Responsibility	Time Frame
1	Planning Issues			
	(Change in			
	design/scope/implementation			
	arrangement/cost			
	overrun/staffing)			
2	Contract and Construction Issues			
	Mobilization of Contractor(s)/			
	Issuance of Good for construction			
	drawings/ Utility Sifting /Handing over			
	site/ variations order etc. /Pending			
	Payments			
3	Safeguard issues during			
	Construction			
	(Land acquisition / Resettlement /tree			
	cutting/ to the contractor(s))			
4	GAP-related implementation issues			
	(i.e., gender targets, coordination or			
	delay of activities)			
5	Other Issues (including any social			
4.5	safeguards-related issues)			

*In case an issue is identified, please provide details e.g. details of change in design/ implementation arrangements, pending safeguards actions, encumbrance free sites to be handed over to the contractor (numbers/kilometer) with targeted date by which the same could be handed over to the contractor; If all Drawings/Design are not issued/approved, name of such Drawings/Design and targeted date by which the same could be handed over to the contractor; Decision pending with employer and consultants (such decision could be approval of, variations, extra item rate, etc.)

CHAPTER 9 Financial Management

QUARTERLY FINANCIAL INFORMATION TO BE INCLUDED IN THE QUARTERLY PROGRESS REPORT (QPR)

General Instructions

The financial information in the format outlined below are to be included in the quarterly progress reports (QPRs) to be submitted to ADB within 45 days after each quarter. In case of delays or incomplete information, ADB will submit a reminder to the EA/IA. Repeated delays or incomplete information may have a negative impact on the project performance ratings and may be discussed during review missions.

Section A. Utilization of Funds (ADB Loan/grant, and Counterpart Funds)

In this section include the following information:

- i. Overall status of project financing including the adequacy and timeliness of counterpart funds;
- ii. Cumulative contract awards financed by the ADB grant and loan, and counterpart funds (commitment of funds to date), and comparison with time-bound projections (targets targets for ADB financing compare the actual contract awards with the contract award curve included in the PAM). Include an analysis of significant variances between planned and actual contract awards; Provide contract-wise details as per annex 5;
- iii. Cumulative disbursements from the ADB grant and loan, and counterpart funds (expenditure to date), and comparison with time-bound projections (targets for the ADB financing compare the actual disbursement with the disbursement projections as per the S curve included in the PAM), Include an analysis of significant variances between planned and actual disbursements;
- iv. Reconciliation of project records and ADB disbursement records (LFIS/GFIS) for the reporting period and cumulative from project inception to end of the reporting period. Explain reasons for discrepancies and outline follow-up actions required (if any). Attach a detailed reconciliation by WA for the ADB grant as per Annex 4; and,
- v. Re-estimated costs to completion (if required), need for reallocation within ADB loan categories, and whether an overall project cost overrun is likely.

Section B. Financial Management

In this section, include the following information:

- i. Summary of the financial management arrangements in the project including: a) any problems in the existing FM arrangements and/or flow of funds and b) any significant changes occurred during the reporting period (e.g. FM staff turnover, implementation of new financial systems, emerging FM related risks etc..);
- ii. Summary of the status of each agreed action in the FM action plan outlined in the PAM. Attach a detailed log as per Annex 7;
- iii. Outline the status of recommendations and immediate actions provided by ADB as part of the APFS review (if any) and FM related recommendations agreed during ADB review missions (if any). Attach a detailed log as per Annex 8; and,
- iv. Summarize the status of Status of past audit observations (if any). Attach a detailed log as per Annex 6.

Annexes: Attach the following annexes to the QPR report when submitting it to ADB:

- 1) Statement of Cash Receipts and Payments by financier and expenditure category
- 2) Statement of Budgeted vs Actual Expenditures
- 3) Statement of disbursement by financing source
- 4) Detailed reconciliation (by Withdrawal application) of project records and ADB disbursement records (LFIS/GILFIS) for the fiscal year to date and cumulative;
- 5) List of signed contracts and disbursements by contract
- 6) List grants sanctioned and disbursed
- 7) Status of past audit observations (resolved/ pending);
- 8) Status of FM action plan (complied/ongoing)
 9) Status of FM related actions agreed during ADB review missions and TPRMs (if any).

Statement of Cash Receipts and Payments by financing source and expenditure Category

Statement of Cash Receipts and Payments by linancing source and expenditure Category					
	Reporting Period (Quarterly/Semi-annually)	Year to date	Cumulative	Hard commitments (contracts signed not paid)	
	In the currency of the financial sta	tements	•		
Cash receipts					
ADB Grant: Advance/Replenishments ADB Grant: Direct Payments ADB Loan: Advance/Replenishments ADB Loan: Direct Payments					
Government financing Total receipts					
Payments Expenditure category 1 Expenditure category 2 Expenditure category 3 Etc					
Total expenditures					
Opening cash balance					
Closing cash balance					

^{*}expenditure categories as outlined in the PAM.

Statement of Budgeted vs Actual Expenditures

	Budget vs. Actual – year to date														
	For the current year ended 20xx												Cumulative (from inception to the end of current year)		
Expenditure Categories*	Budget Q1 Actual Q2 Actual Q2 Budget Q3 Actual Q3 Budget Q3 Cumulative Budgeted Expenditures for the fiscal year to date (A) (B) Variance % (B/A-1)									Project Total estimated amount - as per the PAM cost tables - (C)	Cumulative Actual expenditures (D)	Variance (%) (D/C -1)			
Expenditure category 1: Expenditure category 2: Expenditure category 3: Expenditure category 4: Etc.															
Total															

^{*}expenditure categories as outlined in the PAM

^{**}any significant variances (e.g. more than 10%) are to be explained in the notes

[INSERT FINANCING SOURCE] -	Statement of Disb	ursement year to date		
Statement of Disbursement	Notes	Reporting period	Fiscal year to date	Cumulative Project to Date
ADB grant- Funds claimed during the year	A			
Reimbursement				
Advance Fund				
Direct Payment				
Subtotal				
Expenditure incurred not yet claimed	В			
Subtotal				

Statement of Disbursement by Financing Source for the year ended DD/MM/YYYY (for the ADB Grant/loan)

Detailed Reconciliation (by Withdrawal Application) of Project Records and ADB Disbursement Records (LFIS/GILFIS) for the Fiscal Year to Date and Cumulative (separate for the ADB grant/loan)

Insert financing source (ADB loan/ ADB grant)											
WA Details				Per project records/APFS (Amount recorded in the project Financial statements as reimbursement, direct payment, etc) Per ABD disbursement records LFIS/GFIS (actual Paid)						Remarks	
Withdrawal application No (WA)	Disbursement method (reimbursement, direct payment, etc)	Time period covered in the WA	Date	In local currency (as recorded in project records/ financial statements)	exchange rate	USD equivalent (A)	Value date	In USD (B)	Difference (A-B)	Reason for difference (i.e. timing forex. Pending rejected)	
1 2		1-31.3.2020									
etc											
Total - Fiscal year to Date Total - Cumulative											

Note B: Provide a breakdown of expenditures incurred but not yet claimed from ADB including the eligible portion for ADB financing.

List of Signed Contracts

Description*	Contract Description	Contract Start	Contract End	Supplier/Contractor Name	Contract No.	Total Contra ct Value	Total Contra ct Amoun t Invoice d to date	Total Disburs ed on Contract	Total Undisburs ed Amount	Financi ng source (ADB loan ADB grant)
1. Civil works										
2: Equipment/ supplies										
3. Consulting										
services										
Total										

^{*}Classified a per expenditure categories outlined in the PAM.

Grant register (by beneficiary) - Cumulative from Inception to End of Reporting Period

Subproject information													
								Financial information					
No	Name of the Beneficiary organization/gra ntee and location	Subproject description	Subproj ect identific ation/ref erence number	Total Committed amount (as per the grant agreement)	Date of the grant agreem ent	Respon sible entity	Total expenditure s incurred/cov ered by invoices	Date of invoice /claim	% reimburs ed of the expendit ures (if applaica ble)	Amount reimburse d	Date of reimb ursem ent	Classifie d as non performi ng beneficia ry (Yes/No)	Remark s
1													
2													
3													
4													
5													
6													
7													
Etc.													
Total													

²⁰ Including non or late submission of audited utilization certificate, if applicable

Status of Audit Observations

Recommendation/ Audit Observation	Date of the observation	Planned Actions to Address the Recommendation	Responsibility	Current Status of the Planned Action (pending /resolved)	Remarks

Status of Financial Management Action Plan

Key Risk	Agreed action	Timeline	Responsible Entity	Current status (implemented/Pending)	Remarks (including an action plan in case of noncompliance)

Status of FM related actions agreed during ADB review missions and TPRMs

Date of the review mission/TPRM	Agreed actions	Timeline	Responsible Entity	Current status (implemented/Pending)	Remarks

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Acronyms and Abbreviations

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- 9.5 Workers welfare facilities at work site (rest shelter, drinking water, toilets)
- 9.6 Work Implementation Protocol (daily work clearance by engineer, presence of site engineers, health worker, first aid facility, emergency evacuation facility)
- 9.7 OHS training and toolbox talk records
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SEMI-ANNUAL SOCIAL MONITORING REPORT

Quarterly Progress Report – IR and IP Safeguards

Ke	y Question	Yes/No/Not Applicable	Remarks
	Contracts. For any project outputs/compone	ent categorized a	s A or B for IR/IP
1.	Are there any works contracts that have been		
	awarded by the borrower?		
2.	Are the RP(s) based on final detailed-		
	engineering design?		
	Are the final RP(s) cleared by ADB?		
4.	Are the IPP(s) based on final detailed-		
	engineering design?		
	Are the final IPP(s) cleared by ADB?		
II.	Project Execution: Instruments. For any pro as A or B for IR	ject outputs/cor	nponent categorized
1.	Has access been granted to contractor(s) for		
	the civil works site??		
2.	Is there economic displacement?		
3.	Is there physical displacement?		
4.	Did physical displacement occur before		
	compensations are fully paid to affected		
	persons?		
5.	Are other applicable assistance delivered to		
	affected persons prior to providing access to		
	the contractor?		
	Project Execution: Grievances related to IR/I	P	
	Does the project have a functioning GRM?		
2.	Are there any Accountability Mechanism		
_	(CRP)-eligible complaint(s) on file?		
3.	If there is an AM complaint, is there a time-		
4	bound corrective action plan?		
	Is the implementation of CAP on track?		a a malata d ta ID/ID
	Project Execution: Project Safeguards Non-C	ompliance issu	es related to IR/IP
١.	Does the project have any outstanding non- compliances?*		
	compliances?		
*as	side from any non-compliance to items above		
2.	If yes, is there a time-bound CAP agreed		
	tween ADB and Borrower?		
3.	Is the implementation of corrective actions		
-	•		
a.	on track?		
b.	overdue for 3 months or less		
C.	Overdue for more than 3 months		
٧.	Project Execution: Monitoring		
1.	Are the social monitoring reports submitted as		
	per agreed schedule, commencing from		
	project effectiveness?		
2.	If no, for how long has it been overdue?		

GENDER ASSESSMENT AND ACTION PLAN

GENDER ASSESSMENT

Gender mainstreaming category: Effective gender mainstreaming

Key issues. Maldives ranks 83 out of 162 countries with a Gender Inequality Index of 0.348 in 2021. The country is one of the most vulnerable nations to climate change and its gendered impacts are high on the poorest and those living in geographically remote island communities. About 8.2% of women live in households below the national poverty line is recorded at 8.2% in 2020.2 Their gross national income per capita of \$7,454 is 48% of men's gross national income per capita of \$15,576 in 2018.3 Labor force participation rate in the country is 60% with lesser rate for women at 45.6% (compared to 77.1% for men).4 Women are expected to prioritize their family and domestic roles and remain primarily responsible for most unpaid care work, including caring for children and older people.⁵ With high demand of time for care responsibilities (spending an average of 6 hours compared to men, 3 hours), women prefer informal employment which is characterized with no job security, and workers are often underemployed and underpaid. About 39% of the employed population work in the informal economy, and incidence of employment is higher for women in the Atolls at 54% (compared to men, 49%).6 Women account for 84% of the home-based workers establishing small-run businesses out of their homes;7 and those in rural islands are engaged mostly in traditional livelihood activities such as rope and thatch weaving, fish paste making, and home gardening8, which includes vegetable cultivation, taro farming, and coconut collection. The survey for the project9 reports that in vegetable cultivation, "other family members" (31.4%) and "woman only" (29.8%) are most involved in decision making. As the women in informal economies juggle with care responsibilities at home, their productivity is limited to an average of 5 hours (compared to work in formal sector, 8 hours). 10 This reflects a huge pay gap. The government reports that if all status of employment is considered, on average, a woman earns 13% less than men. 11

Agriculture accounts for 7% (11,919) of total employment with 9% (1,035) women in its informal sector. ¹² About 54% of the registered farmers are rural women of whom 45% and 87% are employed in vegetable production and processing, respectively. ¹³ Those engaged in farming face difficulties in coping with and reducing the effects of hazards and climate change, due to their insufficient access to technology, resources, and markets. Women's limited expertise in smart farming technologies (i.e., container gardening, hydroponics, aquaponics), value chain development, financial literacy, and product branding and marketing impact largely on their motivation to sustain their farming activities. Smart farming tools require higher capital investment. Poor farm-to-market connectivity restricts mobility and transport of farm inputs and produce. Women farmers also lament on the lack of stable and larger markets for their farm produce, absence of local post-harvest facilities, and the inefficiency of inter-island cargo routes to expedite transport of farm inputs and produce. In addition to backyard farming, women, especially mothers, take second jobs to support household income and expenses. ¹⁴ These challenges are compounded by the limited markets and unfamiliarity of climate change adaptation measures, which may result to slow and gradual recoupment of investments. Climate change raises the risks of damage or loss of harvests, asset loss and physical harm. It discourages women in reinforcing their contributions to food security and community resilience.

Poor understanding of the distinct roles and contributions of men and women in coastal and mangrove protection, often leads to lack of recognition of their distinct needs and interests in policies and programs. The division of labor and their embedding in cultural norms can lead to valuable, non-processing and non-marketing inputs by women

¹ United Nations Development Programme. 2021. *Maldives: Gender Equality*.

² National Bureau of Statistics. 2020. <u>I am Generation Equality: Realizing Women's Rights</u>.

³ International Labour Organisation. 2022. The Employment - Environment - Climate Nexus.

⁴ Maldives Bureau of Statistics. 2019. <u>Informal Sector and Informal Employment Household Income and Expenditure Survey.</u>

Abdullah, F. et al. 2018. <u>Research Papers on the Situation of Women in Maldives</u>. UN Women/UNFPA.

⁶ Maldives Bureau of Statistics. 2019. *Informal Employment. Household Income and Expenditure Survey*.

Food and Agriculture Organization of the United Nations. 2019. <u>Country Gender Assessment of Agriculture and the Rural Sector in Maldives</u>.

⁸ Law prohibits ownership of agricultural land. This is considered a community resourced managed by the locals and primarily devoted for subsistence farming. Plots are small, ranging from 100 m² to 500 m². Source: Food and Agriculture Organization of the United Nations. Fact Sheet: Maldives: Women in Agriculture, Environment and Rural Production.

⁹ Asian Development Bank. 2023. Poverty, Gender and Social Assessment. Consultant report (TA-6977 REG).

¹⁰ See Footnote 4, page 12 of MBS slides.

¹¹ See Footnote 2, page 5 of the infographic.

¹² See Footnote 6, page 21 of the HIES 2019 report.

¹³ International Fund for Agricultural Development. 2021. <u>Maldives Country Strategy Note 2022–2023</u>. (para. 22, p.4)

¹⁴ From stakeholders' consultations during project fact-finding mission.

but since women's engagement with and contributions in coastal and mangrove protection are not well documented, these are overlooked. The project survey¹⁵ also reported that flood risk protection, "other family members" (35.1%) and "woman only" (22.9%) are again primary caretakers. Mangrove protection is dominated by "other family members" (56.5%), indicating broad family involvement in environmental conservation.

Under the Decentralization Act, the government has mandated that one-third of the elected local councils must be women and pursued the establishment of women development committees (WDCs) in the islands. Their presence provides an opportunity to meaningfully engage in key project activities. However, there are limited capacities and resources for the local women—either representing themselves individually or their households, as community leaders, or as members of group—which curtails their voice and contribution to effectively pursue groundbreaking initiatives and lead gender mainstreaming in the sector, more so in enhancing community resilience and food security. Women are also hardly involved in the design of drainage systems built to mitigate and reduce the effects of flooding in their communities. These were evident in the project survey¹⁶ where it found that women hardly engage in community actions: (i) In community discussions on disaster risk reduction, 27.7% indicate that "Other family members" participate the most, followed closely by both men and women at 24.4%; (ii) participation in related training sessions is slightly higher for "Other family members" (26.4%) and both men and women (25.6%); and (iii) for employment opportunities in climate adaptation projects, the survey reported that the majority (44.2%) believe that "Other family members" benefit the most.

There are currently no academic programs for agriculture in Maldives; thus, reducing potential career options for girls after graduation. Many of the courses offered by universities are aimed at boosting the tourism industry, and health and education sectors. Also, most agricultural practices remain labor intensive which discourages young women to consider employment in farm work. This reduces young women's voice and immersion in the sector and community building.

The main current channels for receiving weather and early warning information are the internet, TV or social media. These are also the preferred channels for future information, although loudspeakers are also an option for 30% of households. About 48% of households state to have not received an early warning for the most recent disaster event and early warnings about floods, heatwaves and droughts are less received than storm early warning. The women and vulnerable groups are marginalized further by the lack of information about weather alerts, forecasts, and climate projections due to limited communication infrastructure accessible to them.

These issues derail the acceleration of gender mainstreaming and transformative actions in the sector and impact the quality of life of women in island communities.

- Key actions. The project will focus key interventions on empowering women and increasing their meaningful participation in the sector by (i) strengthening their capacities to adapt to climate change and participate in disaster response and recovery actions (ii) supporting them in developing potential and diverse income generating activities using smart and adaptation technologies; and (iii) extending matching grants which aims to increase their resources and voice in business decisions, as well as influence community decisions towards enhancing resilience and food security. These actions are aligned to goals under the Asian Development Bank (ADB) Strategy Operational Priority 2 on accelerating progress of gender equality in operations, and the Government of Maldives' 2022–2026 Gender Equality Action Plan Strategy 4 on enforcing and establishing economic empowerment schemes and opportunities for across all sectors.
- 2. Key implementation arrangements. At the onset of project effectivity, the implementing agency will recruit a gender expert for 36-person months, intermittently for five years. The expert will be part of the project management unit (PMU) structure with the following core responsibilities: (a) carry out and track the implementation of the gender action plan (GAP), including the relevant contract packages supporting GAP implementation; (b) with guidance from PMU and ADB, design a practical work plan for GAP implementation; (c) integrate gender-responsive elements in trainings under the GAP; (d) ensure remedial actions are timely taken to address GAP-related issues; (e) work closely with relevant experts to ensure meaningful engagement with relevant civil society organizations; and (f) prepare reports to PMU and ADB on GAP progress and results, in prescribed forms and timelines. (See detailed terms of reference of expert in PAM, Appendix 8)

Project will allocate adequate funds for successful implementation and completion of the GAP. The PMU head will ensure that data, disaggregated by sex and age, and information in the reports are accurate and valid before it is submitted to ADB for assessment. The implementation of the GAP will adopt a socially inclusive strategy to ensure that women and vulnerable people are able to meaningfully participate or benefit from the project initiatives. Key lessons and good practices observed during the implementation of the GAP will be documented by the gender

¹⁵ See Footnote 9.

¹⁶ See Footnote 9.

¹⁷ See Footnote 9.

- expert. These will be incorporated in key reports—submitted to the ADB and implementing agency—for learning purposes and potential scale-up or replication in future ADB or government operations.
- 3. **Negative impact and risks.** There are no known impacts that will adversely affect women. In case there will negative impacts and risks identified at implementation, the gender expert will report it to the PMU and ADB for proper and timely action. The project recognizes the value addition of gender mainstreaming in enhancing the community's resilience to climate change by building their capacities to disaster response and recovery.
- 4. **Monitoring and reporting.** The gender expert in the PMU will be leading the administration of the GAP. With guidance from PMU and the ADB project team, the expert will develop an effective implementation and monitoring tool and report on GAP progress and results in prescribed ADB forms; (i) internal monthly progress reports, (ii) quarterly progress reports, (iii) completion report on the GAP. Reporting should be accurate and follow the prescribed reporting forms (see template in PAM, Annex 8). Data should be disaggregated by sex; location; and other relevant social dimensions, as relevant.

GENDER ACTION PLAN							
Performance Indicators (activities and targets)	{Contract Package Number (as applicable)}	Responsibility	Timelines				
Output 1: Institutional and community capacity on climate adaptation	n improved. ⁱ						
1a. At least 2 gender-responsive ⁱⁱ and inclusive training modules and materials ⁱⁱⁱ on climate change adaptation and disaster response and recovery planning, developed.	Project funds	PMU, consultants	Q3, 2026				
1b. At least 50% of the MMS staff (30% are women) trained reported increased knowledge on weather data monitoring, early warning devises, and disaster response and recovery planning. (2023 Baseline: 30% of 103 MMS staff are women)	Project funds	MMS, PMU, consultants	Q2, 2027				
1c. At least 50% of residents (45% are women and vulnerable people) ^{iv} reported improved skills on climate change adaptation and local disaster risk reduction planning. (2023 baseline: 0) (OP2.5.1)	Project funds	PMU, consultants	Q2 2028				
1d. All communication materials on climate change adaptation measures, weather data monitoring, and early warning devices developed were gender responsive ^v .	Project funds	PMU, consultants	Q4 2029				
Output 2: Effective flood and coastal protection with nature-based se	olutions implemented.						
2a. At least one of the coastal mangrove restoration activities in Kulhudhuffushi was led by women.	Project funds	PMU, consultants	Q2 2030				
2b. Consultations with women including WDC conducted and at least 30% of them reported that the project designs were gender-responsive and strengthened the role of women in flood and coastal protection management. vi	Project funds	PMU and consultants	Q2, 2030				
Output 3. Climate-smart technologies and practices in agri-food syst	tem promoted.vii		•				
3a. At least 2 gender-responsive and inclusive training modules and materials on climate-smart and water-saving agriculture practices and agribusiness development, including business or service provision proposal developments, developed.	Project funds	HAC, PMU, consultants	Q1, 2027				
3c. Training facilitated and 2,000 smallholder farmers (50% are women) reported to have received advisories on climate-smart and water-saving agriculture practices and agribusiness development including developing viable business proposals.	Project funds	HAC, PMU and consultants	Q4, 2027				
3e. 500 proposals (30% are from women- and youth-led groups) ^{ix} on climate-smart technologies, submitted for funding. (OP 2.3.2)	Project funds	HAC, PMU, consultants	Q1, 2029				
3f. At least 30% of the new staff employed in HAC were women.x	Project funds	HAC, PMU, consultants	Q3, 2030				
Output 4. Climate adaptation businesses, services, and urban farming	ng implemented.						
4a. Considerations for gender mainstreaming and inclusive approaches, incorporated in the grant scheme.	Attached TA	HAC, PMU, consultants	Q2, 2027				
4b. Screening and evaluation of all 500 proposals, conducted based on gender-mainstreamed evaluation criteria.	Attached TA						

4c.	Matching grant proposals for at 300 (30% are women-led) ^{xi} new businesses and services, approved and commenced implementation. (2024 baseline: 0) (OP2.5.4)	Attached TA	HAC, PMU, consultants	Q1, 2030
Pro	oject GAP Administration Activities			
1.	GFP and GE recruited by PMU.	Project funds	PMU	Q1 2026
2.	Gender training for PMU including GFP and GE.	Project funds	ADB	Q1 2026
3.	A workplan for implementation with detailed deliverables and timelines was developed.	Project funds	GE and GFP	Q1 2026
4.	Gender monitoring and tracking of GAP progress was established with data disaggregated by sex and age.	Project funds	GE and GFP	Q1 2026
5.	GAP progress reports were submitted monthly and quarterly to PMU and assessed by ADB.	Project funds	PMU, ADB	Q2 2026-Q4 2030
6.	Validated GAP completion report submitted to ADB.	Project funds	PMU	Q4 2030

ADB = Asian Development Bank, GAP = gender action plan, GE = gender expert, GFP = gender focal person, HAC = Hanimaadoo Agricultural Center, OP = operational priority, PMU = Project Management Unit, TA = technical assistance, WDC = women development committee

Source: Guidelines for Gender Mainstreaming Categories of ADB Projects, ADB project documents.

- ⁱ Geographic scope for Output 1 is Haa Dhallu and Addu atolls.
- Gender responsiveness entails providing women equal opportunities to access resources to for upskilling and learning with view of strengthening their participation and voice in household, business or community decisions.
- iii Include developing pre- and post-training evaluation surveys which should be carried out for all training activities including in Output 3.
- Population of women accounts for 42.8%. Diverse participation will be encouraged. It targets participation of the WDC, women members in the local councils, and women-led local civil society organizations (CSOs). Vulnerable groups: people with disabilities, older people, disadvantaged youth, income poor groups, and migrants in the project areas will also be mobilized to participate. Other relevant island-based civil society organizations and universities with local campuses will also be mobilized to participate.
- These materials will be integrated in e-based communication tools and platforms of MMS, WDC, and local councils; and be accessible by communities particularly women and keep them posted on potential climate risks and adaptation measures.
- Members of the WDC, women officials from the local council, and women island residents will be mobilized to participate in key consultations, or collaboration on implementation of key activities.
- vii Geographic scope for Output 2 is also Haa Dhallu and Addu atolls.
- viii Agribusiness development sessions will incorporate financial literacy for entrepreneurs and relevant trends in agriculture value chain, product branding, and marketing.
- 75% of the 30% (or 22.5%) target will be from women. About 54% of the rural farmers are women (see GA). Meanwhile, 19% of youth in the country are unemployed (see RRP). The matching grants will be offered not only for women farmers, but it will also other stakeholders (i.e., youth, entrepreneurs, CSOs, academe, etc.), to ensure inclusive access to potential financial aid for business start-ups or other service ventures.
- x Report indicates additional human resource requirements of 24 staff. The target 7 (30%) of the new staff are female.
- ^{xi} Women-led refers to approved proposals developed by women representing themselves individually (i.e., as a farmer, entrepreneur, homemaker, teacher, etc.) or as a member of a group or organization, local or national in scope.

PROJECT FINANCIAL STATEMENTS TEMPLATE

[Name of Agency] [Name of Project] Statement of Receipts, Payments and Cash Balances* For the year [period] ended dd/mm/yyyy In [currency]

			Loui	i ency]			
		Current year		Previous	year	Cumulative (from inception to the end of current year)	
	Not e	Cash Receipts/Paym ents controlled by the entity	Receipts / Payment s from/ by Direct/th ird party	Cash Receipts/Paym ents controlled by the entity	Receipts/ Payments from/ by Direct/ third party payments	Cash Receipts/Paym ents controlled by the entity	Receipt s/ Payme nts from/ by Direct/ third party payme nts
Cash receipts							
ADB Grant	3.1	xxx	XXX	XXX	XXX	XXX	XXX
ADB Loan	3.2	xxx	XXX	XXX	XXX	xxx	XXX
Government of Maldives	3.3	XXX	xxx	XXX	xxx	XXX	XXX
etc							
Total receipts							
Payments Expenditure category 1 Expenditure category 2	4.1	xxx xxx	xxx xxx				
Expenditure category 3	4.3	xxx	XXX				
Expenditure category 4 etc	4.4	xxx	xxx				
Total payments							
Excess of receipts over payments							
Cash balance at the beginning of the year	6.1	xxx	XXX				
Cash balance at the end of the year	6.2	xxx	xxx				

Project Director: [Signature]

Accounts/Finance Office: [signature]

[Name of Agency] [Name of Project] Statement of Budget versus Actual Amounts* or the year [period] ended dd/mm/yyyy In [currency]

	iii [cuitency]								
		Current y	ear	Prev	ious ye	ar	inceptio	lative (n to the rent ye	end of
Expenditure Categories	Note	Budgeted Actual	Variance	Budgeted	Actual	Variance	Project Budgeted as per the PAM	Actual	Variance
Expenditure category 1	5.1								
Expenditure category 2	5.2								
Expenditure category 3	5.3								
Expenditure category 4	5.4								
Etc.									
Total Payments									
Total Project Cost									

Note: any significant variances are to be explained in the notes

Project Director: [Signature] Accounts / Finance Office:

[signature]

[Name of Agency] [Name of Project] Statement of Claims and Disbursement from ADB grant and Ioan For the year [period] ended dd/mm/yyyy In [currency]

	Note	Current Year	Prior Year	Cumulative Project to Date
ADB grant	7.1			
Reimbursement				
Initial advance Fund and replenishments				
Direct Payment				
Subtotal				
Grand total (grant)				
ADB grant	7.2			
Reimbursement Initial advance Fund and replenishments Direct Payment Subtotal				
Grand total (loan)				

^{*}list of WAs/claims submitted to be disclosed in the notes

Project Director: [Signature] Accounts/Finance Office: [signature]

[Name of Agency] [Name of Project] Statement of Disbursement Claimed Under Statement of Expenditure (SOE) Procedure For the year [period] ended dd/mm/yyyy In [currency]

W/A No. (1)	SOE Sheet no (2)	Cost Category (3)	Total Amount Paid (4)	ADB Financing x% ¹ (5)	Net Eligible Expense (6 = 4 x 5)	Amount Reimbursed (7)	Advance Account Fund Replenished / Liquidated (8)	Total Disbursement using SOE Procedure (7+8 = 9)
		Total for the	e year					
		Total for [p	rior year/s]					

 $^{^{\}rm 1}$ The financing percentages within the table for ADB funds are as per loan agreement Schedule 3.

Accounts/Finance Office (or equivalent): [signature]

Project Director: [Signature]

[Name of Agency] [Name of Project] Statement of Advance Account (for each AA) For the year [period] ended dd/mm/yyyy In [currency]

At datalla. WWW			
Account details: XXXX		1	
	Notes	Current Year	Prior Year
Balance brought forward from			
previous period			
Add:			
Initial Advance			
Replenishment received during the			
year/period			
Interest Earned			
Subtotal (A)			
Deduct:			
Payments made during the			
year/period			
Liquidation			
Expenditure yet to be claimed			
Amount refunded during the			
year/period			
Subtotal (B)			
Closing Balance			
As per bank statement (copy			
attached)			

Project Director: [Signature] Accounts/Finance Office: [signature]

[Name of Agency] [Name of Project] Statement of Payments by Output and Financing Source For the year [period] ended dd/mm/yyyy In [currency]

Statement of Payments by Output and Financing Source for the Year Ended DD/MM/YYYY

	Notes *	For the current year ended 20xx		Cumulative (from inception to the end of current year)		
Expenditure Categories		ADB grant	Government	ADB grant	Government	
Output 1						
Output 2						
Output 3						
Output 4						
Output 5						
Total Project Cost						

Project Director: Accounts/Finance Office:

[Signature] [signature]

[Name of Agency] [Name of Project] Notes to the Financial Statements For the year [period] ended dd/mm/yyyy In [currency]

NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED [YEAR END DATE]

1.Project Information

1.1 Key highlights:

Project title

Funded by:

Management:

Executing Agency

Implementing agencies

Start Date:

Closing date:

Project Duration:

Funding Sources/modality/amount

1.2 Description of Impact and Outcome /outputs

2. Summary of Significant Accounting policies.

- 2.1 Basis of preparation
- 2.2. Cash Basis of accounting
- 2.3. Recognition of Receipts and payments
- 2.4. Third party payments
- 2.5. Presentation and functional currency
- 2.6 Foreign Currency Translation
- 2.7. Changes in Accounting policies (if any)
- 2.8 Reporting period
- 2.9 Comparatives
- 2.10 Financing Charges During Implementation, when applicable

3. Funds received

- 3.1 Funds received under ADB grant
- -list funds received as part of advance & replenishments and
- -List Direct payments made by ADB
- 3.2 Funds received under ADB loan
- -list funds received as part of advance & replenishments and
- -List Direct payments made by ADB
- 3.3 Funds received from the Government
- 3.4. funds received from Other Funding Sources

4. Payments

List of Payments from the advance account/sub-advance account. List of third party payments/direct payments.

5. Variances

List and explain any significant variances between budget and actual expenditures

Cost Category Variance in amount		Variance in Percentage	Explanation	

6. Opening and closing balances

List details of the opening balances List details of the closing balances

	Current year	Previous year
Cash on hand		
Cash in bank xxx1		
Cash in bank xxx2		
Total cash and cash equivalents		

7. Disbursements/Withdrawal Applications

Include detailed list of WAs claimed from ADB with the following breakdown: i) funding source (ADB grant, ii)) WA number, iii) time period in which expenditures were incurred iv) the amount claimed and currency, v) date submitted, vi) disbursement method, vii) the amount disbursed by ADB and vii) used exchange rate.

ADB grant (number)

ADD gran	it (num	ber)						
WA number	Date of WA	Time period covered	Amount claimed (in local currency)	currency	Disbursement procedure	Status (pending/disbursed	Exchange rate	Amount disbursed by ADB

ADB Loan (number)

WA number	Date of WA	Time period covered	Amount claimed (in local currency)	currency	Disbursement procedure	Status (pending/disbursed	Exchange rate	Amount disbursed by ADB
					_		-	
					_		-	
					_		-	

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8. Financing Charges During Implementation (if applicable)

Disclose a break down Interest Expenses/ Financial Charges incurred as part of the project for the current year, past year and cumulatively (if applicable).

	Current year	Previous year	Cumulative to date
Interest during			
implementation			
Commitment charges			
Total			

PROCUREMENT PLAN

Basic Data							
Project Name: Enhancing Climate Resilience and Food S	Security Project						
Project Number: 57002-001	Approval Number:						
Country: Maldives	Executing Agency: Ministry of Finance (MOF)						
Procurement Risk: High	Implementing Agency: Ministry of Climate Change, Environment and Energy (MoCCEE)						
ADB Sovereign Project Grant: Asian Development Fund: \$17.95 million ADB ordinary capital resources: \$4.00 million concessional (loan) Japan Fund for Poverty Reduction: \$3.0 million (project grant) ^a Ocean Resilience and Coastal Adaptation Financing Partnership Facility: \$1 million (project grant) ^b Government: \$1.97 million	Project Closing Date: 31 December 2030						
Date of First Procurement Plan: xx November 2024	Date of this Procurement Plan: xx November 2024						
Procurement Plan Duration: 18 months	Related to COVID-19 response efforts: no						
Advance contracting: yes	Use of e-procurement (e-GP): no						

^a JFPR is a possible funding source subject to the approval of the Government of Japan.

A. Methods, Review and Procurement Plan

1. Except as the Asian Development Bank (ADB) may otherwise agree, the following methods shall apply to procurement of goods, works, non-consulting services, and consulting services.

Procurement of Goods, Works and Non-consulting Services							
Method	Comments						
Open Competitive Bidding (OCB) for Goods	First package subject to prior review.						
Request For Quotation for Goods	First package subject to prior review.						
Open Competitive Bidding (OCB) for Works	First package subject to prior review.						
Request For Quotation for Works	First package subject to prior review.						
Request For Quotation for Nonconsulting	First package subject to prior review.						
Services							

Consulting Services							
Method	Comments						
Quality- and Cost-Based Selection	QCBS for construction supervision; Prior revie						
(QCBS) for Consulting Firm	·						
Individual Consultant Selection (ICS)	First package subject to prior review						

B. List of Active Procurement Packages (Contracts)

2. The following table lists goods, works, non-consulting, and consulting services contracts for which the procurement activity is either on-going or expected to commence within the duration of this Procurement Plan.

^b Ocean Resilience and Coastal Adaptation Trust Fund is a possible funding source subject to approval of the fund committee.

Goods, Works, and Non-consulting Services

Package No.	General Description	Estimated Value (\$)	Procurement Method	Review	Bidding Procedure	Advertisement Date	Comments
G01	Design, Supply and Installation of Radar System - including civil works for radar tower building, training and after-sale services	3,600,000	OCB- Internatio nal	Prior	1S2E	Q4 2024	Non-Consulting Services: No No. of Contracts: one Advance Contracting: Yes Prequalification of Bidders: No Domestic Preference: No High Risk Contract: No SBD: ADB's SBD Plant (Design-Supply-Installation) (including civil works, training and after sales service) e-GP: No Complexity level: Low
G02	Laboratory equipment for HAC facilities (a) Lot 1: Soil lab equipmen t and regents (b) Lot 2: Entomolo gy laboratory (c) Lot 3: Plant pathology laboratory	145,000	OCB- National	Post	1S1E	Q3 2025	Non-Consulting Services: No No. of Contracts: 3 Advance Contracting: No Prequalification of Bidders: No Domestic Preference: No High Risk Contract: No SBD: ADB's SBD (Goods) e-GP: No Complexity level: Low
G03	Procurement of Double cab vehicles (4W vehicles)	70,000	RFQ	Post	NA	Q3 2024	Non-Consulting Services: No No. of Contracts: one Advance Contracting: yes Prequalification of Bidders: No Domestic Preference: No High Risk Contract: No SBD: Sample RFQ document e-GP: No Complexity level: Low
G04	Malé Radar Refurbishment	850,000	OCB- Internatio nal	Post	1S2E	Q4 2024	Non-Consulting Services: No No. of Contracts: one Advance Contracting: Yes Prequalification of Bidders: No Domestic Preference: No High Risk Contract: No SBD: ADB's SBD Plant (Design-Supply-Installation) e-GP: No Complexity level: High Comment: Assessment to be done prior to procurement
CW01	Malé Radar Tower refurbishment	150,000	RFQ	Post	NA	Q4 2024	Non-Consulting Services: No No. of Contracts: one Advance Contracting: Yes Prequalification of Bidders: No Domestic Preference: No High Risk Contract: No SBD: Sample RFQ document e-GP: No Complexity level: Low
CW02	Design-build	2,000,000	OCB-	Prior	1S2E	Q4 2024	Non-Consulting

Package No.	General Description	Estimated Value (\$)	Procurement Method	Review	Bidding Procedure	Advertisement Date	Comments
	upgrading of HAC facilities		Internatio nal				Services: No No. of Contracts: one Advance Contracting: Yes Prequalification of Bidders: No Domestic Preference: No High Risk Contract: No SBD: Small Works e-GP: No Complexity level: Low
NCS-1	External Auditor	60,000	RFQ	Post	NA	Q1 2025	Non-Consulting Services: Yes No. of Contracts: one Advance Contracting: No Prequalification of Bidders: No Domestic Preference: No High Risk Contract: No SBD: NCS RFQ document e-GP: No Complexity level: Low

Consulting Services

Package Number	General Description	Estimated Value (\$)	Selection Method	Review	Type of Proposal	Advertisemen Date	Comments
CS01	Construction Supervision Consultant (CSC)	639,090	QCBS (80:20)	Prior	FTP	Q4 2024	Non-Consulting Services: No Type: Firm Assignment: National shortlisting Advance Contracting: yes e-GP: No Comment: 58 person months
CS02	Weather Observatory Specialist	304,400	ICS	Prior	NA	Q1 2025	Non-Consulting Services: No Type: Individuals Assignment: International Advance Contracting: no e-GP: No Comment: 12 person months
CS03	Agro-meteorologist	181,800	ICS	Post	NA	Q1 2026	Non-Consulting Services: No Type: Individuals Assignment: International Advance Contracting: no e-GP: No Comment: 8 person months
CS04	Coastal /Environmental Engineer	414,000	ICS	Post	NA	Q1 2025	Non-Consulting Services: No Type: Individuals Assignment: International

Package Number	General Description	Estimated Value (\$)	Selection Method	Review	Type of Proposal	Advertisemen Date	Comments
							Advance Contracting: no e-GP: No Comment: 18 person months
CS05	Mangrove Ecologist	140,200	ICS	Post	NA	Q1 2026	Non-Consulting Services: No Type: Individuals Assignment: International Advance Contracting: no e-GP: No Comment: 6 person months
CS06	Urban Agriculture Expert	276,000	S	Post	NA	Q1 2025	Non-Consulting Services: No Type: Individuals Assignment: International Advance Contracting: no e-GP: No Comment: 12 person months
CS07	Capacity Building Program for MMS, including on models and software development for enhanced data management and forecasting.	523,860	QCBS (90:10)	Post	FTP	Q4 2025	Non-Consulting Services: No Type: Firm Assignment: International shortlisting Advance Contracting: no e-GP: No Comments: 24 person months (Early Warning Systems Specialist/Team Leader 9 person months; Meteorologist 6 person months; Hydrology Specialist 6 person months, Capacity Development Specialist 3 person months)

C. List of Indicative Packages (Contracts) Required under the Project

Goods, Works, and Nonconsulting Services

Package Number	General Description	Estimated Value (\$)	Procurement Method	Review	Bidding Procedure	Indicative Advertisement Date	Comments
CW03	Coastal protection and inland flood protection works (including bioswale) at Kulhudhuffushi	8,500,00 0	OCB- International	Post	1S2E	2026	Non-Consulting Services: No No. of Contracts: one Advance Contracting: No Prequalification of Bidders: No Domestic Preference: No High Risk Contract: No SBD: ADB's SBD Works (Small) e-GP: No Complexity level: Low Comments: Indicative subprojects include inland drainage network improvements; offshore and nearshore coastal protection structures in the eastern shoreline (Kulhudhuffushi City)

Consulting Services

	Package Number	General Description	Estimated Value (\$)	Selection Method	Review	Type of Proposal	Advertisement Date	Comment s
ſ	NA	NA	NA	NA	NA	NA	NA	NA

D. List of Awarded and Completed Contracts

3. The following table lists the awarded contracts and completed contracts for goods, works, non-consulting, and consulting services.

	Goods, Works and Nonconsulting Services						
Package Number	General Description	Contract Value	Date of ADB Approval of Contract Award	Date of Completion	Comments		
NA	NA	NA	NA	NA	NA		

	Consulting Services						
Package Number	General Description	Contract Value	Date of ADB Approval of Contract Award	Date of Completion	Comments		
NA	NA	NA	NA	NA	NA		

TERMS OF REFERENCE

A. Project Management Unit Consultants¹

Table 1: Project Management Unit Staffing

Position		Special	ist
Posi	lion	International	National
1.	Project Director		✓
2.	Project Manager		✓
3.	Civil/Environmental Engineer		✓
4.	Procurement Specialist		✓
5.	Urban Agriculture Expert		✓
6.	Financial Management Specialist		✓
7.	Environmental Safeguards Specialist		✓
8.	Social Safeguards Expert		✓
9.	Gender Specialist		✓
10.	Communication/Behavioral Specialist		✓

1. Civil/Environmental Engineer (1 national, 66 person-months)

a. Key Responsibilities

- (i) Support the detailed design process of all inland and coastal flood protection, and drainage subprojects and subprojects on mangrove restoration and management.
- (ii) Review all detailed designs (including all linked documents, cost estimates, material specifications) prepared under the project to ensure project objectives are met in a technically sound manner.
- (iii) Review bidding documents for works and contracts on inland and coastal flood protection, and inland drainage.
- (iv) Ensure implementation and construction of the design as per the approved plans, drawings and cost estimates, liaising closely with the Construction Supervision Consultant.
- (v) Support the commissioning and operation of the investments, including review of management, operation and maintenance manuals prepared.
- (vi) Assist in monitoring and ensure quality assurance and control.
- (vii) Contribute to environmental and social safeguards monitoring and reporting as required.
- (viii) Contribute to knowledge management on island flood protection, documenting lessons learned and recommendations for replication or upscaling in other islands in Maldives.
- (ix) Other relevant tasks assigned by the Project Director.

b. Qualifications

- (i) A master's degree in civil engineering, drainage engineering or hydrology.
- (ii) At least 10 years of experience in civil/environmental engineering designs; including of nature-based solutions for flood mitigation.
- (iii) Experience in construction supervision will be an advantage.
- (iv) Advanced knowledge of ADB and Government of Maldives' procedures and policies, related to similar works.
- (v) Good understanding of gender mainstreaming, issues in flood protection and drainage.
- (vi) Good written and verbal communication skills in English.

¹ PMU consultants are government staff to be hired for the project on a contractual basis with reporting requirements and office access similar to the regular staff.

2. Procurement Specialist (1 national, 66 person-months)

a. Key Responsibilities

- (i) Lead the overall bid process management, procurement of works and goods for the project, including preparation of bidding document, assist in obtaining ADB's noobjection, assistance in conducting pre-bid meetings and finalize clarifications and addendum as necessary, finalization of bid evaluation report and assist in contract award.
- (ii) Ensure that the procurement under the project is conducted in accordance with ADB guidelines and the project procurement plan approved by ADB and the government, and its updates.
 - a. Regularly update the procurement plan as required under ADB guidelines and seek approval from Government.
 - b. Coordinate with the Government and ADB in preparing advertisements, short listing, bidding documents, evaluation, letters of awards, draft contracts, etc., in the procurement of goods, works, and services including consultancies.
 - c. Ensure the advertisements and the procurement processes enable women and people from disadvantaged groups to apply and be considered for selection where appropriate.
 - d. Liaise with ADB staff as required and submit the items to ADB requiring prior review and documents needing ADB approval.tMake necessary arrangement for contract signatures in consultation with the IA and EA.
 - e. Keep progress of procurement and consultant recruitment activities against procurement timetables, highlight variations in progress, record reasons, and identify remedial actions, if any.
 - f. Monitor performance of activities under of the project operational and procurement plans and prepare monthly, quarterly progress reports in collaboration with other staff.
 - g. Monitor and evaluate contract performance and reports of consultants and contractors and report to the Project Director on a regular basis.tldentify bottlenecks and problems that negatively affect smooth implementation of the project and propose remedial measures to the Project Director and ADB.
 - h. Other relevant tasks assigned by the Project Director.

b. Qualifications

- (i) A civil engineering, business administration or related degree. Post graduate in civil/environmental engineering/finance/law will be an advantage.
- (ii) Minimum 8 years of experience in national and international procurement of works, goods and service for public sector projects or similar.
- (iii) Experience in use of ADB standard bidding documents, procedures/policies required.
- (iv) Good written and verbal communication skills in English.

3. Urban Agriculture (1 national, 66 person-months)

- (i) Provide technical oversight of the implementation of all (urban) agriculture interventions supported under the Project.
- (ii) Liaise closely with the Ministry of Agriculture and Animal Welfare and the Hanimaadhoo Agriculture Centre on project activities.
- (iii) Ensure appropriate agriculture activities that strengthen food security are selected under the maching grant scheme.

- (iv) Promote engagement of women and people from disadvantaged groups in the design, implementation and monitoring of the urban agriculture interventions.
- (v) Support the delivery of a gender-responsive and inclusive capacity building program for MOAAW, Hanimaadhoo Agricultural Centre, and farmers on climate smart and urban agriculture approaches and technologies.
- (vi) Contribute to environmental and social safeguards monitoring and reporting as required.
- (vii) Other relevant tasks assigned by the Project Director.

- (i) A bachelor's degree in water resources management, irrigation, agriculture sciences, natural resources management, or related field.
- (ii) At least 10 years of experience in the design and implementation of climate smart irrigation approaches and technologies, preferably in Maldives.
- (iii) Advanced knowledge of water-saving technologies, drip irrigation, soil-less farming, vertical farming, precision agriculture and other climate-smart agricultural strategies.
- (iv) Sound understanding of food security issues and farming livelihoods in Maldives.
- (v) Good understanding of gender mainstreaming and its application in irrigation and agriculture.
- (vi) Good written and verbal communication skills in English.

4. Financial Management Specialist (1 national, 66 person-months)

The Specialist will ensure the following.

- (i) All project funds are used for the intended purpose and with due attention to considerations of economy and efficiency.
- (ii) Full compliance with ADB's financial reporting and audit a requirements as outlined in the relevant sections of loan/grant agreements, project administration manual, minutes of the loan negotiations, etc.
- (iii) ADB loan and grant funds are made available for the project in a timely manner through timely preparation and submission of withdrawal applications in accordance with ADB disbursement handbook and collection and filing of all supporting documentation, as required.

- (i) Assist MOCCEE/PMU in preparing annual budget estimates and in consolidating the annual budget estimates from the various /implementing agencies.
- (ii) Support the implementing agencies (HAC, MCC, KCC) in: (a) developing and documenting a methodology or process to accurately estimate the incremental O&M costs arising from project assets; and (b) reflecting these estimates in the agencies' annual recurrent/master budgets, along with the necessary justification.
- (iii) Conduct an analysis of the financial execution of the approved budget (budget-to-actual by activity) as well as financial vs physical progress. Analyze and document any significant variations;
- (iv) Support the MOCCEE/PMU in ensuring that (i) separate accounts for the project are duly maintained in accordance with the applicable accounting standards, (ii) receipts and expenditures are duly segregated by financing source (e.g. ADB and government funding), (iii) separate control registers are maintained for signed contracts, withdrawal applications submitted to ADB and expenditures claimed from ADB under the statement of expenditure procedure, grants approved and amounts disbursed etc. as outlined in the project administration manual;
- (v) Assist the MOCCEE/PMU in preparing withdrawal applications in a timely manner and in collecting the required supporting documentation in accordance with the relevant

- procedures outlined in ADB's Loan Disbursement Handbook (2022, as amended from time to time) and the disbursement section of the project administration manual. Support MOCCEE/PMU in filing all supporting documentation in an organized manner to allow easy access to ADB staff and auditors.
- (vi) Assist the MOCCEE/PMU in maintaining a detailed Withdrawal Application register for ADB loan and grant funds;
- (vii) Support the MOCCEE/PMU in conducting (a) monthly reconciliations of the advance accounts; and (b) quarterly reconciliation of the project disbursement records/ books of accounts and ADB's disbursement data available in the L/GFIS to ensure the correctness and completeness of the project records and financial reports/statements. Follow-up on any discrepancies to ensure timely resolution;tAssist the MOCCEE/PMU in preparing periodic financial and financial management information and analysis in the agreed format to be included in the quarterly progress reports to be submitted to ADB:
- (viii) Assist the MOCCEE/PMU in preparing project financial statements annually covering the expenditures incurred and receipts from all the funding sources (e.g. ADB loan, grant and government funding) in a format agreed with ADB;
- (ix) Support the MOCCEE/PMU in ensuring that the project financial statements are audited and that the audit report, audited financial statements, and the management letter(s) are submitted to ADB in a timely manner;
- (x) Support the MOCCEE/PMU in the follow-up of internal and external audit recommendations/observations to further improve the internal controls of the project and to avoid recurring audit observations;
- (xi) Support the MOCCEE/PMU in ensuring that all financial records are orderly filed and stored physically in safe location and an electronic back up is conducted regularly;
- (xii) Support the MOCCEE/PMU in implementing the Financial Management Action Plan (FMAP) as agreed with ADB and outlined in the Project Administration Manual, including the preparation of a project financial management and accounting manual;
- (xiii) Support the MOCCEE/PMU in understanding ADB's financial management and disbursement procedures and requirements and advising them on the existing ADB financial management resources available. Provide capacity building to new/rotating accounts staff to ensure continuity;
- (xiv) Assist the MOCCEE/PMU in implementing financial management related recommendations as agreed between the project and ADB during review mission/tripartite review meetings; and
- (xv) Assist the MOCCEE/PMU in other tasks as assigned by the project management unit.

- (i) A professional accounting qualification such as CA, CPA, ACCA or equivalent.
- (ii) An overall 10 years of working experience with 8 years of experience in project/program financial management and training/ capacity building including government accounting system.
- (iii) Experience in similar capacity and sound knowledge of ADB procedures/policies and working on externally funded projects/programs financed by ADB or World Bank shall have added advantage.
- (iv) Good written and verbal communication skills in English.

5. Environmental Safeguards Specialist (1 national, 66 person-months)

a. Key Responsibilities

(i) Lead the overall management and implementation of environmental safeguard policies of ADB and Government of Maldives, including coordination with contractors.

- (ii) Ensure local disclosure of the ADB IEE and other safeguard documents including translation into Dhivehi.
- (iii) Ensure that all environmental requirements of ADB including occupational health and safety requirements of the Government of Maldives are complied with by the project, liasing with technical teams to ensure all documents are reviewed from a safeguards perspective.
- (iv) Draft all safeguards and environmental monitoring reports, and review and monitor the effectiveness with which the EMPs are implemented.
- (v) Implement a system for monitoring the environmental safeguards and undertake data collection and site visits for environmental monitoring as needed.
- (vi) Ensure the IEE and EMP are updated and included in the bid documents and civil works contracts and they are followed during construction.
- (vii) Ensure that costs for implementing the EMP are included in the BOQ (or equivalent) of the DBO bidding and contract documents.
- (viii) Confirm compliance of contractors with obtaining statutory clearances or permits required under the project, including environmental clearances as applicable (in collaboration with the construction supervision firm).
- (ix) Conduct stakeholder consultations, as appropriate, to determine if there is any concern during construction; ensure women and people of disadvantaged groups are consulted and their issues identified and addressed.
- (x) Take immediate action in the event of unexpected adverse impact or ineffective mitigation measures identified during implementation and in preparing the corrective action plan.
- (xi) Ensure the grievance redress mechanism (GRM) is established and followed, and that affected parties are aware of the GRM.
- (xii) Address any grievances through the grievance redress mechanism (GRM) in a timely manner, and prepare record of such grievances for inclusion in the environmental monitoring report.
- (xiii) Prepare the semi-annual environmental monitoring reports to be submitted to ADB, and upon ADB review, address any comments raised (if any), and submit required reports to Maldives EPA.
- (xiv) Provide support to the construction supervision firm in matters of environmental safeguards.
- (xv) Other relevant tasks assigned by the Project Director.

- (i) A graduate degree (preferably post graduate degree) in environmental management, environmental sciences, or equivalent discipline with a minimum of 10 years in environmental management and monitoring and oversight of project implementation
- (ii) A minimum of 5 years of experience in carrying out environmental impact assessment, initial environmental examination/ environmental management plan (EMP) for infrastructure projects
- (iii) Strong knowledge of Government of Maldives environmental regulations and construction requirements as well as ADB procedures and policies including Safeguard Policy Statement 2009
- (iv) Good understanding of gender mainstreaming and its application in environmental safeguards
- (v) Good written and verbal communication skills in English
- (vi) Other relevant tasks assigned by the Project Director.

6. Social Safeguards Specialist (1 national, 36 person-months)

- (i) Lead the overall management and implementation of social safeguard policies of ADB and Government of Maldives, including coordination with contractors.
- (ii) Lead the preparation, implementation, and monitoring of social safeguards/ resettlement documentation for civil works subprojects and on-site monitoring activities.
- (iii) Implement a system for monitoring the social safeguards and undertake data collection for monitoring as needed.
- (iv) Take immediate action in the event of unexpected adverse impact or ineffective mitigation measures identified during implementation and in preparing the corrective action plan.
- (v) Ensure the grievance redress mechanism (GRM) is established and followed, and that affected parties are aware of the GRM.
- (vi) Address any grievances through the grievance redress mechanism (GRM) in a timely manner, and prepare record of such grievances for inclusion in the social safeguards monitoring report.
- (vii) Prepare the semi-annual monitoring reports to be submitted to ADB, and upon ADB review, address any comments raised (if any).
- (viii) Conduct social safeguards training of the project staff to ensure sensitivity to, and incorporation of, social safeguards considerations in every phase of project/subproject design, implementation, and monitoring.
- (ix) Coordinate with the gender expert and behavioral change specialist, as needed, to ensure coordination of related actions.
- (x) Provide support to the construction supervision firm and contrators in matters of social safeguards.
- (xi) Other relevant tasks assigned by the Project Director.

- (i) A graduate degree (preferably post graduate degree) in social sciences, or equivalent discipline with a minimum of 8 years in monitoring and oversight of project implementation
- (ii) A minimum of 5 years of experience in carrying out social impact assessment, land acquisition and resettlement frameworks and plans, and social safeguards due diligence for infrastructure projects
- (iii) Strong knowledge of Government of Maldives regulations and construction requirements as well as ADB procedures and policies including Safeguard Policy Statement 2009
- (iv) Good understanding of gender mainstreaming and its application in social safeguards due diligence
- (v) Good written and verbal communication skills in English

7. Gender Expert (1 national, 36 person-months)

- (i) Lead the GAP implementation and monitoring, as well as reporting of results, including updates on the contract packages attached.
- (ii) Develop a work plan for effective GAP implementation, monitoring and reporting. Modify the workplan, as needed or upon guidance from PMU and ADB project team.
- (iii) Develop gender responsive and inclusive training modules based on GAP identified activities and intentions. Also, schedule and facilitate the trainings including the training assessment surveys to determine the knowledge or skills of target participants pre/post-training.

- (iv) Ensure close coordination with PMU, ADB, project experts, on GAP related activities and targets and reporting on issues at implementation.
- (v) Lead mobilization of women, women development committees, youth groups, to implement GAP activities. Support other experts in community mobilization for the awareness raising activities, trainings, and other project activities. Ensure that women and girls have good representation in key project activities.
- (vi) Report to PMU and ADB issues or challenges at GAP implementation. Act on remedial actions to address issues or challenges identified; and seek guidance from PMU or ADB, as appropriate. Timely update PMU and ADB on progress of actions taken.
- (vii) Identify and establish appropriate systems and processes to promote gender and inclusion and capture relevant data and information for learning and potential scale-up or replication.
- (viii) Ensure regular monitoring of GAP identified targets and collection of sex disaggregated information and gender analytical evidence.
- (ix) Confirm that accurate data is collected and documented. Also, prepare the GAP reports to be submitted—in prescribed forms—to ADB for assessment, at every project progress review.
- (x) Incorporate comments and feedback from ADB in GAP reports, as required.
- (xi) Support the Financial Management Specialist to include gender responsive budgeted activities in the annual project workplan.
- (xii) At implementation, determine if there are social inclusion issues which are within the project scope to address. Report to PMU and ADB and seek guidance on addressing these issues.
- (xiii) Assess capacity of the implementing agency in GAP implementation and monitoring and determine areas for improvement. Integrate assessment in reports to be submitted to PMU and ADB.
- (xiv) Document good practices or strategies, lessons learned and areas for improvement related to the project GAP and overall gender mainstreaming in the project cycle.
- (xv) Other relevant tasks assigned by the Project Director.

- (i) A degree in gender and development, sociology, anthropology, or related fields with short gender courses. Master's degree in gender and social development is an advantage.
- (ii) Preferably 5 years' experience in gender mainstreaming in internationally-funded and/or government-managed development.
- (iii) Excellent written and verbal communication skills in English.
- (iv) Experience in externally funded projects is an advantage.

8. Communication/Behavioral Change Specialist (1 national, 60 person-months)

- (i) Update, implement and monitor the Consultation and Participation Plan and stakeholder communication strategy, ensuring stakeholders are consulted and engaged throughout project implementation, working closely with other PMU members, implementation consultants, and contractors.
- (ii) Lead the updated design, implementation, monitoring and evaluation of the Behavioral Change and Communication program supported under the Project, ensuring the required behavioral change for project sustainability.
- (iii) Identify and detail communication-related activities in the project to effectively communicate the principles, process and achievements of the project.
- (iv) Identify and document learnings from the Project and prepare knowledge products and communication materials for national and local dissemination.

- (v) Undertake public awareness and outreach events related to the project activities. Coordinate closely with the gender expert in mobilizing women, youth groups, WDCs, and other key stakeholders on GAP-related activities.
- (vi) Adopt a gender equal and inclusive platform in community participation and mobilization for project activities.
- (vii) Design and support capacity building programs for island councils, PMU and other stakeholders.
- (viii) Design and maintain the Project's online presence, including project webpage and social media, and identify opportunities for media engagement where appropriate.
- (ix) Assist the Project Director and PMU in liaising with all relevant departments within and outside the Ministry of Climate Change, Environment and Energy.
- (x) Ensure gender mainstreaming, with support from the gender expert.
- (xi) Other relevant tasks assigned by the Project Director.

- (i) A bachelor's degree in communication, social sciences, or related field.
- (ii) At least 6 years of experience in the design and implementation of communication, awareness raising and behavioral change programs.
- (iii) Advanced understanding of the context of the project communities, stakeholders' mobilization, gender mainstreaming, social inclusion, and community resilience in Maldives.
- (iv) Excellent written and verbal communication skills in English.

B. Project Implementation Consultants

Table 2: Project Implementation Consultants

Position	International	National
CS01: Civil Work Supervision Consultant		Firm
CS02: Weather Observatory Specialist	Individual	
CS03: Agrometeorologist	Individual	
CS04: Coastal /Environmental Engineer	Individual	
CS05: Mangrove Ecologist	Individual	
CS06: Urban Agriculture Expert	Individual	

9. CS02: Weather Observatory Specialist (1 international, 12 person-months, intermittent)

- (i) In close coordination with Maldives Meteorological Service (MMS), contribute to the contractor selection for the radar subprojects.
- (ii) Provide technical oversight of the damage assessment of the existing weather radar in Malé, and prepare input into bidding documents related to the radar upgrade based on the assessment results.
- (iii) Oversee the design, construction and installation of the new (Gan) and refurbished (Malé) weather radar observatory systems supported under the project, including integration of the new Gan radar in the observatory network. Attend factory performance tests, configuration verifications and inspections of the equipment on behalf of MMS and PMU.
- (iv) Inspect and approve shop-drawings, system drawings, diagrams and material samples submitted by the contractor and verify the performance and function of all equipment.
- (v) Oversee the upgrading of IT infrastructure to ensure the radar systems integration with the existing MMS meteorological observation network. As necessary, undertake

installation guidance, inspection work, performance tests etc. for the installation and configuration work of the major hardware, data communication equipment, computing equipment, system software and integration with the Campbell Scientific MESSIR NEO workstation.

- (vi) Facilitate the development of a cost-effective radar systems operation and maintenance plan.
- (vii) Attend handover of equipment with MMS, PMU and the contractor.
- (viii) Based on a review of the implementation schedule, provide instructions to the contractor and submit progress reports on the implementation of the Project to MMS, MCCEE/PMU and contractors. Provide appropriate technical advice to MMS, PMU and the contractor.
- (ix) Design and co-deliver a multi-year GESI-responsive capacity building program in radar meteorology for MMS.
- (x) Prepare progress reports and updates to PMU and ADB as needed.

b. Qualifications

- (i) A bachelor's degree in radar engineering, electronic engineering, civil engineering or related field.
- (ii) At least 15 years of experience in design, installation and operation of weather observatory systems, radar technology, weather forecasting and nowcasting, and capacity building, preferably in SIDS and the Asia Pacific.
- (iii) Knowledge of the design, construction, operation and maintenance, and application of Doppler radar systems, and experience with their testing and analysis.
- (iv) Good understanding of gender equality and social inclusion and its application in weather observatory and forecasting.

10. CS03: Agrometeorologist (1 international, 8 person-months, intermittent)

- (i) Review national context and capacities, and international and regional methodologies, institutional set-ups and good practice on agrometeorological advisory products and services, including of GESI considerations, and design a pilot for Maldives to be supported under the Project.
- (ii) Design and implement a national pilot on agrometeorological forecasts and crop management advisories, working closely with Ministry of Agriculture and Animal Welfare and the Maldives Meteorological Society, including potentially upgrading of meteorological instruments.
- (iii) Identify optimal pilot locations, ensuring minimal environmental impacts and no land acquisition impacts.
- (iv) Provide technical support to MMS for the upgrading of existing automatic weather stations with agricultural monitoring instruments, to be used during the above pilot.
- (v) Prepare bidding document for contracts related to the procurement of equipment for the pilot.
- (vi) Ensure all forecasts and advisories are in mediums and using methods which can be accessed by women and people of disadvantaged groups including persons with disability.
- (vii) Prepare documentation of lessons learned and provide recommendations with clear next steps and institutional arrangements for replication or upscaling.
- (viii) Design and deliver a GESI responsive capacity building program for MMS, MAAW, Hanimaadhoo Agricultural Center and farmers on agrometeorological forecasts and advisories and GESI mainstreaming.
- (ix) Prepare progress reports and updates to PMU and ADB as needed.

- (i) A master's degree in meteorology, hydrology, agrometeorology or related field.
- (ii) Advanced knowledge in agrometeorological advisory products and services, including the application of remote sensing data, integration of climate projections, and participatory community-based approaches.
- (iii) At least 6 years of experience in scoping, designing and implementing agrometeorological forecasts and advisories, preferably in SIDS and the Asia Pacific.
- (iv) Good understanding of GESI and its application in agrometeorological advisory products and services.

11. CS04: Coastal/Environmental Engineer (1 international, 18 person-months, intermittent)

a. Key responsibilities

- (i) Provide technical oversight and quality control to the marine and coastal hydrology modelling and detailed design study carried out for Kulhudhuffushi City.
- (ii) Support the detailed design process of all coastal and pluvial flood mitigation engineering subprojects, working with consultants and contractors in ensuring the designs take into account the results of the modelling studies, integrate nature-based solutions and do not negatively impact women and people of disadvantaged groups.
- (iii) Prepare bidding documents for works contracts on coastal and inland flood protection.
- (iv) Develop and apply suitable climate stress tests to all coastal and inland flood protection subprojects.
- (v) Provide technical inputs on environmental and social impacts that may arise during the implementation, and provide inputs into safeguards reporting.
- (vi) Support MCCEE/PMU with commissioning and operation of the investments, including preparing management, operation and maintenance manuals.
- (vii) Provide capacity building to PMU, island councils on the management and operation and maintenance of inland and coastal protection infrastructure, including GESI considerations.
- (viii) Provide technical guidance and management advice to MCCEE/PMU as required.
- (ix) Assist in monitoring and ensure quality assurance and control.
- (x) Lead all knowledge management on coastal and inland flood resilience, documenting lessons learned and recommendations for replication or upscaling in other islands in Maldives.
- (xi) Prepare progress reports and updates to PMU and ADB as needed.

b. Qualifications

- (i) A master's degree in coastal engineering, environmental engineering or related fields, preferably with specialization in coastal resilience, pluvial flood protection, island coastal ecosystems, mangroves or related fields.
- (ii) At least 10 years of experience in coastal and/or inland flood mitigation engineering designs, including of nature-based solutions.
- (iii) Experience in implementation and construction supervision will be an advantage.
- (iv) Experience in Maldives or small island states will be an advantage.
- (v) Advanced knowledge of ADB and Government of Maldives' procedures and policies, related to similar works.
- (vi) A good understanding of GESI and its application in coastal protection.

12. CS05: Mangrove Ecologist (1 international, 6 person-months, intermittent)

a. Key Responsibilities

- (i) Provide technical oversight and quality control to the mangrove and groundwater hydrology modeling and detailed design study carried out for Kulhudhuffushi City, ensuring the complexities of island and mangrove hydrology are well studied and documented.
- (ii) Contribute to the preparation and evaluation of bidding documents for works contracts.
- (iii) Provide technical guidance to the contractors awarded for the Output 2 subprojects on the use of the modelling results, integration of nature-based solutions and community-based approaches.
- (iv) In collaboration with the GESI specialist, identify groups that are at risk of exclusion from mangrove management, assess the barriers and design measures to address the problems with monitoring indicators and targets for inclusion; assess existing capacities of women and people of disadvantaged groups to engage and contribute to potential mangrove restoration and management subprojects.
- (v) Design and deliver a GESI-responsive capacity building program for PMU, island councils, MNU, and other stakeholders on mangrove hydrology modeling, mangrove restoration and management
- (vi) In relation to ensuring compliance with applicable laws and regulations, provide ecology inputs to the review of bidding documents, bids, contractor's designs, safeguard assessments, construction-related plans, and safeguard documentation.
- (vii) Support the design and delivery of a communication and behavioral change program, particularly on mangrove restoration and management aspects, including messages addressing GESI issues and ensuring women and people of disadvantaged groups access the messages.
- (viii) Lead all knowledge management on mangrove restoration and management, documenting lessons learned and recommendations for replication or upscaling, including on GESI mainstreaming.
- (ix) Prepare progress reports and updates to PMU and ADB as needed.

b. Qualifications

- (i) A master's degree in hydrology, biology, environmental science, marine science, biodiversity, or related discipline;
- (ii) At least 10 years of experience in the design and implementation of mangrove and wetland restoration, conservation and management projects, preferably in SIDS and the Asia Pacific.
- (iii) Advanced knowledge in mangrove hydrology, ecological and biodiversity assessments, ecosystem services valuation, and the role of mangroves in climate resilience and carbon sequestration.
- (iv) A good understanding of GESI and its application in ecology and mangrove management.

13. CS06: Urban Agriculture Expert (1 international, 12 person-months, intermittent)

a. Key Responsibilities

- (i) Provide technical oversight to the implementation of all (urban) agriculture interventions supported under the Project.
- (ii) Design and deliver a comprehensive GESI-responsive capacity building program for MAAW, Hanimaadhoo Agricultural Centre, island councils, and farmers on urban agriculture adaptive research and farmer field school approaches and technologies.
- (iii) Advise on screening of applications (including processing, input supply and other agribusiness proposals) under the grant scheme's sustainable urban farming agribusiness and category, identifying opportunities for upscaling.

- (iv) Support the design and delivery of a communication and behavioral change program, leading on urban agriculture aspects, increasing public awareness and uptake of climate resilient urban agriculture measures.
- (v) In collaboration with the GESI specialist, provide guidance for i) engagement of women and the disadvantaged in the design, planning, implementation, monitoring of the urban agriculture investments; ii) use of technology that benefits them and iii) empowerment of women and the disadvantaged and contribution to reduction of discriminatory practices.
- (vi) Lead all knowledge management on urban agriculture and climate smart agriculture, documenting lessons learned and recommendations for replication or upscaling, including on GESI mainstreaming.
- (vii) Prepare progress reports and updates to PMU and ADB as needed.

b. Qualifications

- (i) A master's degree in agriculture, agroecology, environment science or related field, with a specialization in urban agriculture.
- (ii) At least 10 years of experience in the design and implementation of sustainable agricultural development and agroecology projects in urban and semi-urban settings, preferably in SIDS and the Asia Pacific.
- (iii) At least 5 years experience in adaptive research and facilitation of farmer field schools.
- (iv) Advanced knowledge of innovative approaches and technologies in vertical farming, hydroponics, agroforestry, water efficiency, urban waste recycling, and agrobusiness development.
- (v) A good understanding of GESI and its application in urban agriculture.

TERMS OF REFERENCE

CS01: Construction Supervision Consultant

A. Purpose of the Assignment

- 1. The Government of the Republic of Maldives (GoM) expects to receive funding from Asian Development Bank towards the Enhancing Climate Resilience and Food Security Project (the Project), implemented by the Ministry of Climate Change, Environment and Energy and executed by the Ministry of Finance. The Client intends to apply part of the funds for the payment of services of Construction Supervision Consultants (Firm).
- 2. The main objective of the assignment is to assist the Project Management Unit (PMU) to undertake construction supervision of all civil works to be constructed by firms under the Project.

B. Background

- 3. Maldives' physical vulnerability combined with a reliance on climate-sensitive sectors such as tourism, fisheries and subsistence farming put the country at high risk to adverse consequences of climate change. The country is exposed to several natural hazards including rainfall-induced floods, coastal flooding from waves and tides, swells, coastal erosion, cyclone winds and storm surges, heat waves, earthquake, tsunami and drought.² These events have devastating impacts such as loss of live, injury and displacement, houses and infrastructure damage, disruption of livelihoods and services, environmental degradation, reduced economic productivity, particularly in tourism, and a potential increase in poverty and social vulnerability.
- 4. To address some of these challenges, the Asian Development Bank (ADB) is proposing an investment project on climate resilience. The overall objective of the "Enhancing Climate Resilience and Food Security Project" (hereinafter "the Project") is to strengthen the climate resilience of inhabited islands and agri-food systems. Key features of the Project include enhancing the weather monitoring capacity to support informed climate decisions and safeguarding urban infrastructure, agricultural productivity and food security. The Project interventions are both physical (engineering measures and nature-based solutions) and institutional (broader climate change adaptation measures to address gaps in the institutional and regulatory environment and build capacity within government and local communities).
- 5. The project will have four outputs:
 - (i) Output 1 will increase the capacity and awareness to plan, respond and adapt to climate change by improving infrastructure, software and capacities in real-time weather monitoring, forecasting and early warning;
 - (ii) Output 2 will implement infrastructure and nature-based solutions for pluvial flood mitigation, coastal protection and mangrove restoration in Kulhudhuffushi Citv:
 - (iii) Output 3 will capacitate farmers and other value chain stakeholders to enhance the resilience of island agri-food systems; and
 - (iv) Output 4 will support adaptation innovations through a matching grant scheme.
- 6. The indicative start date of the investment project is November 2024 and the project will be implemented until June 2030.

² Asian Development Bank. 2024. Preparation of the Climate Change Adaptation and Resilience Project in Maldives. Climate Change Assessment. Consultant's Report. Manila.

The Republic of Maldives will be the borrower and the Ministry of Finance will be the executing agency (EA). The Ministry of Climate Change, Environment and Energy (MCCEE) will be the implementing agency (IA) for all Project Outputs.

C. Scope of Work

7. To successfully implement the Project through high quality design and construction supervision, the Government of Maldives – MCCEE (the Client) will require the support of a professional engineering and management consulting firm (the Consultant) to lead the construction supervision of all works under the Project.

The following subprojects under the Outputs have civil works components for which construction needs to be supervised, to be confirmed by ADB and the Government of Maldives:

- Subproject 1.1: Addu weather radar system, including tower (Addu City). A Doppler S-band weather radar and ancillary equipment will be installed in Addu City to improve real-time weather monitoring over the south of the country. The radar antenna, which is a 8 m diameter parabolic dish, will be set inside a radome on top of a concrete tower, whose height will depend on existing or potential future obstructions.
- Subproject 2.1: Inland drainage network improvements, including bioswale (Kulhudhuffushi City). Stormwater drainage and filtration systems and naturebased solutions such as bioswales and swale ditches will be constructed for inland flood protection. As part of the construction, some of the proposed interventions which involve existing phase 1 and phase 2 paved roads require road cutting and resurfacing.
- Subproject 2.2: Measures for the protection of the eastern shoreline (Kulhudhuffushi City). Offshore and nearshore coastal protection structures will be improved to prevent overtopping and erosion. To prevent the loss of sediment alongshore, approximately 25 groynes, each 20 m in length, will be required.
- Subproject 3.1: Construct of a multipurpose facility at Hanimaadhoo Agriculture Centre (Hanimaadhoo). The Project will design and construct a multi-purpose facility including training center, office and a small lab.
- 8. The Consultant will be the Client's representative on site and will perform all duties delegated by the Client in writing in accordance with the MDB's Harmonized Edition of the Conditions of Contract for Construction prepared and copyrighted by the International Federation of Consulting Engineers (Fédération Internationale des Ingénieurs-Conseils, or FIDIC), FIDIC 2010 which is available at www.fidic.org.
- 9. The main focus of the assignment is to manage and supervise the construction and ensure compliance with the Maldivian regulations (National and Local) including Construction Law, Building Code, Structural, Electrical, Mechanical, Sanitary and Social & Environmental and Occupational Health and Safety (OHS), and requirements and ADB standards of environmental safeguards.
- 10. **Task 1: Review of detailed designs.** The Consultant will review the detailed design prepared by the contractors to ensure that it provides the works required. The Consultant will verify that correct engineering practices were used in the design and ensure that the design meet the needs and the standards of the Client.
- 11. **Task 2: Review of shop** drawings **and approvals.** The Consultant will review and approve shop drawings from the contractors before the start of the work. Where needed, the Consultant will provide clarification of construction documents, specifications and drawings as

and when required, while providing written justification to the Client to obtain approval on modifications. The Consultant will check and confirm with the Client all necessary approvals are obtained before commencement of construction.

12. **Task 3: Construction supervision** will comprise the following tasks.

- (a) **Material approval:** Approval of all the materials required for the works will I be checked, compared with specifications given in the proposals and design requirements and approved in a predefined clear process and records must be maintained in proper manner and share with the Client. Approvals will be organized in a way not causing any delays to Contractors works.
- (b) **Supervision**: The Consultant will monitor progress of the contractors and keep a log of activities, as part of a Construction Management and Project Performance Monitoring and Reporting System. During supervision, if any issues arise, the Consultant will ensure the issue is rectified and recorded in the log of activities.
- (c) **Quality control and assurance**: The Consultant will ensure completion of the construction based on approved scope of work, contractual specifications, approved drawings, within the approved cost and duration, and using sound engineering practices and standards.
- (d) **Safeguards:** The Consultant will monitor the Contractor's compliance to all safeguard items outlined in the environmental and social due diligence requirements.
- (e) **Risk management:** The Consultant will identify and manage, in consultation with the Contractor(s), risks to the Project in form of a risk register and recommend mitigation measures in respect of Project risks.
- (f) Coordination of works and reporting: The Consultant will organize regular site meetings with managers of the contractors, and will coordinate meetings with the Client to provide monthly progress updates. The Consultant will assist the PMU in supplying information related to the design and works progress to the Government.

Task 4: Works commissioning.

- (a) The Consultant will carry out final inspections of the fully completed works with a representative from the Client and prepare the handover certificates;
- (b) The Consultant will review the as-built drawings prepared by the contractors;
- (c) The Consultant will review the Operation and Maintenance Manual prepared by the contractors:
- (d) The Consultant will prepare the draft and final Project Completion Report including handover procedure and environmental completion report, within 4 weeks of final inspection.
- 13. The Consultant will carry out quarterly inspections during the one-year defects liability period and instruct accordingly the contractors with regard to outstanding works and defects. After this period and satisfactory inspections, the Performance Certificate will be issued.

D. Deliverables

Table 1: List of Deliverables

Del	liverable	Submission deadline	
1.	Inception Report	1 month after issuance of Note to Proceed	
2.	Detailed Design Review Report of each	1 month after submission of detailed design by	
	design project/package	contractor	
3.	Monthly progress reports, incl.	10 th of the following month	
	Construction Management and Project	-	

Del	iverable	Submission deadline	
	Performance Monitoring and Reporting		
	System		
4.	Quarterly inspection reports	At the end of each quarter of the defect liability period	
5.	Final Project Completion Report	Within 3 months after completion of the project/package	

E. Estimated Consultant Inputs

14. A summary of consulting services requirements is presented in Table 2. The assignment will require a total of 18 person-months of intermittent international inputs, and 40 person-months of intermittent national inputs between year 2 and year 5 of the investment project (estimated 2026 to 2029), depending on the construction schedule. The Consultant will agree with the Client when the Engineers/Site Supervisors will be mobilized to the project sites.

Table 2: Summary of Personnel Requirements

Pers	onnel title	PM Inputs
Inter	national	18
1	Team Leader/Civil Engineer (Key)	18
National		40
2	Coastal/Civil Engineer (Key)	12
3	Architect (Non-key)	6
4	Engineers/Site Supervisors (Non-key)	22

pm = person month

F. Tasks, Responsibilities and Qualification Requirements

Table 3: Positions, Tasks and Qualifications

No.	Position	Task Assignment
1	Team Leader/Civil Engineer (International)	Main tasks include but are not limited to the following: The Team leader will be responsible for (i) overall project management and administration; (ii) providing advice on procurement and bid process management; (iii) construction supervision; (iv) quality assurance and quality control; (v) Environmental Management and Social Safeguards; (vi) contract management; (vii) the establishment of Construction Management and Project Performance Monitoring and Reporting System; (viii) providing assistance in resolving contractual issues, preparation of Progress and other Reports as required; (ix) Lead the construction supervision team to achieve the milestones and deliverables of the project in a timely manner; (x) Assist the Client in resolving all issues in the construction and management; (xi) Participate in the Design review meetings, Progress review meetings etc. leading the consultancy team. The Team Leader shall be competent in Reporting Skill, Interpersonal Skill, Budgeting, Accounting, Costing, MIS, Audit, Project Planning, Institutional Development, Communication Skill and Leadership skills to manage the Construction Supervision team. The Team Leader shall follow the ADB standard procedures and processes in every aspect of the construction and project management work. Qualifications:
		 Master's Degree in Civil Engineering with at least 15 years of experience in reputed organizations.

		 10 years' experience in civil works projects and construction supervision Shall possess Corporate Membership of recognized professional institution in Engineering. Preferably at least 5 years of work experience in donor funded projects (ADB, World Bank etc.) will have an added advantage. Preferably at least 5 years of work experience as a Team Leader of Consultancy Team/Group.
2	Coastal/Civil Engineer	Main tasks include but are not limited to the following: The Coastal/Civil Engineer will be reviewing of designs/ specifications/drawings/reports/details submitted by various contractors and provide necessary recommendations/ approvals at the contract implementation; (ii) providing assistance in construction supervision, monitor day to day activities during construction stage, quality assurance and quality control; (iii) contract management with respect to the ADB conditions of contract; (iv) checking the variations and claims and provide necessary recommendations and approvals; (v) providing assistance in the conduct of various surveys, tests, investigations and data collection at the contract implementation; (vi) providing assistance in contract administration, project management, preparation of reports; (vii) ensuring compliance with ADB safeguard requirements; (viii) conducting and/or participating in progress review meeting and other meetings with various stakeholders as and when required (ix) providing assistance in handing over of completed facilities as per the procedures set out in the contract documents. Qualifications: At least 8 years of experience in civil engineering design for coastal and drainage works. Preferably be a Chartered Civil Engineer with at least 8 years of experience in reputed organizations. Masters' degree in Civil Engineering is preferred. Shall possess Corporate Membership of recognized professional institution in Engineering. Preferably at least 3 years of work experience in donor funded projects (ADB, World Bank etc.) will have an added advantage.
3	Architect	Main tasks include but are not limited to the following: The Architect will be responsible for (i) review of the overall design of small/medium scale buildings; (ii) coordinating with the Architects, Structural Engineers, Quantity Surveyors of the Contractors to complete the design verification process and overall documentation; (iii) participating in the design review meetings and other meetings as and when required; (iv) guiding the design team to complete the deliverables in timely manner; (iv) providing assistance to supervision staff in resolving contractual issues at the implementation; and (v) ensuring safety at works and compliance with ADB's safeguard policies and procedure. Qualifications: • 8 years of architecture experience in designing of buildings. • Preferably be a Chartered Architect with at least 10 years of experience in reputed organizations.

		 Masters' degree in Architecture is preferred. Shall possess Membership of recognized professional institution in Architecture. Preferably at least 5 years of work experience in donor funded projects (ADB, World Bank etc.) will have an added advantage.
4	Engineers/Site Supervisors	Main tasks include but are not limited to the following: The Engineer/Site Supervisor will (i) carry out, during the execution of the works, inspections of all the workmanship of the contractor; (ii) Issue all necessary instructions to the Contractor, on behalf of Client, and check and control the work to ensure that it is carried out according to the contract documents; (iii) Check and recommend for the approval or otherwise disapproval by the Client for all working drawings prepared by the Contractor; (iv) Check and ensure compliance of Contractor to Environmental Mitigation measures and ensure submission of monitoring reports to the Environment Protection Agency in accordance with the Environment Impact Assessment report; (v) Evaluate all claims for additional payments or extension of time, if any, submitted by the Contractor and make recommendations on these to the Client; (vi) ensuring safety at works and compliance with ADB's safeguard policies and procedures. Qualifications: • Bachelor's degree in civil engineering; • Preferably at least 5 years of work experience in civil engineering, with 3 years of experience in site supervision.

G. Qualification and Experience of the Firm

15. The consultancy firm shall have experience in Construction Supervision of civil works (feasibility studies or capacity development projects will not be considered). The firm shall submit three (3) reference construction projects that have been completed or substantially completed in last ten (10) years with each Consultancy assignment costing not less than MVR 3 million (or USD 194,552.00) and assignment period is more than one (1) year. The firm shall submit the completion letters obtained by the clients to substantiate the given experience details.

H. Selection Criteria

16. The selection of the consultancy firm will be based on consultants' quality- and cost-based selection (QCBS) method. The firm will be recruited in accordance with ADB Procurement Policy (2017, as amended from time to time) and Procurement Regulations for ADB Borrowers: Goods, Works, Non-consulting and Consulting Services (2017, as amended from time to time). A full technical proposal will be used for the selection of a firm. The Consultant will have local staff in Maldives during the construction period. It will be the Consultant's responsibility to select the appropriate international staff to be based in Male intermittently as needed.

I. Equipment, Logistics and Facilities

17. The Consultant shall ensure that experts are adequately supported and equipped. In particular he/she shall ensure that there are sufficient administrative, computing and secretarial provision to enable experts to concentrate on their primary responsibilities. The

Consultant shall meet the full costs for the supply of the teams including all travels, remuneration, insurance, emergency medical aid, facilities and all else necessary for the competent operation of their teams. The Consultants will provide their own office space for their project team.

J. Technology Transfer

18. The Consultant shall consider the technology transfer as an important aspect of this project. The Consultant shall provide the opportunity to the staffs of the client to be involved in the working team of Consultants during the work supervision stage of the project for their capacity development wherever possible.

TERMS OF REFERENCE

CS09: Capacity Building Program for Maldives Meteorological Service

A. Project Background

- 1. Maldives' physical vulnerability and limited adaptive capacity combined with a reliance on climate-sensitive sectors such as tourism, fisheries and subsistence farming put the country at high risk to climate change and severe weather. The country is exposed to several natural hazards which may have devastating impacts such as loss of live, injury and displacement, houses and infrastructure damage, disruption of livelihoods and services, environmental degradation, reduced economic productivity, particularly in tourism, and a potential increase in poverty and social vulnerability. Accurate and localized information on meteorology and coastal processes is scarce in Maldives. Capacity and resource constraints combined with the geographic dispersion of the islands have challenged the expansion of radars and observation networks and technologies. Strengthening the meteorological and coastal monitoring network is key to improve climate and weather forecasting and early warning systems (EWS).
- 2. To address some of these challenges, the Ministry of Climate Change Environment and Energy (MOCCEE), with funding support from the Asian Development Bank (ADB), is implementing a project on climate resilience. The overall objective of the "Enhancing Climate Resilience and Food Security Project" (hereinafter "the Project") is to strengthen the climate resilience of inhabited islands and agri-food systems. Key features of the Project include enhancing the weather monitoring capacity to support informed climate decisions and safeguarding urban infrastructure, agricultural productivity and food security. The Project interventions are both physical (engineering measures and nature-based solutions) and institutional (broader climate change adaptation measures to address gaps in the institutional and regulatory environment and build capacity within government and local communities). The Project outputs are: Output 1: Institutional and community capacity on climate adaptation improved Output 2: Infrastructure for flood protection and nature-based solutions implemented Output 3: Climate-smart technologies and practices in [PL1] [MK2] agri-food system promoted Output 4: Climate adaptation businesses and services, and urban farming implemented
- 3. Output 1 will increase the capacity and awareness to plan, respond and adapt to climate change by improving infrastructure, software and capacities in real-time weather monitoring, forecasting and early warning. A Doppler S-band weather radar and ancillary equipment will be installed in Addu City to improve real-time weather monitoring over the south of the country. The existing weather radar system in Male will be upgraded to ensure it remains operational for the next fifteen years. The development and use of agro-climate forecasts and advisories will also be piloted. Lastly, capacity building and behavioral change activities will be conducted to maximize the effectiveness of the enhance monitoring and early warning systems at both institutional and community levels.

B. Objectives of the Assignment

- 4. The aim of the assignment is to design and deliver a multi-year capacity building program to strengthen the capacity of MMS on weather monitoring, forecasting and early warning.
- 5. More specifically, the assignment will:
 - (i) Identify strengths and weakness of MMS' current monitoring and EWS, looking at all four pillars of an end-to-end early warning system³;

³ As defined under the UN Secretary Early warnings for all (EW4All) initiative.

- (ii) Assess MMS' current institutional, organizational and individual capacities as a basis to design, implement and monitor the capacity building program;
- (iii) Design a multi-year and multimodal capacity building program for MMS;
- (iv) Deliver a series of capacity building activities in support of all interventions targeted under the Project Output 1.

C. Scope of Services

- 6. The following activities will be performed:
 - (i) Assessment and gap analysis of the existing EWS in Maldives, identifying strengths and weaknesses on: (i) disaster risk knowledge; (ii) detection, observations, monitoring, analysis and forecasting of hazards; (iii) warning dissemination and communication; and (iv) preparedness to respond;
 - (ii) EWS stakeholder mapping and analysis;
 - (iii) Identify key competencies or capacities required by different stakeholders for a fully operational end-to-end EWS;
 - (iv) Detailed capacity needs assessment of MMS staff at national and subnational level;
 - (v) Design of a multi-year capacity building program, detailing training modules, target audience, content, training modality, trainers, lesson plan, schedule, data and resource requirements, indicators and tools for monitoring and evaluating capacity improvements etc.;
 - (vi) Identification of modeling and other software and hardware required for the capacity building. Support to the procurement of the agreed new or upgraded software and hardware;
 - (vii) Presentation of the proposed program to MMS and MOCCEE for their agreement;
 - (viii) Design of all the training materials, tools, presentations, handouts, lesson plan etc.Translation of the materials in local language may be required;
 - (ix) Work planning for the capacity building program;
 - (x) Organization and delivery of series of capacity building activities;
 - (xi) Finalization of all training packages for endorsement by MMS and institutionalization as part of their regular staff training curriculum;
 - (xii) Delivery of report to document the capacity building program, including training evaluation, lessons learned and recommendations for replication and scaling.
- 7. A number of topics for MMS capacity building are proposed linked to the Output 1 interventions (Table 2): these are subject to further changes based on the capacity needs assessment and in discussion with MMS and MOCCEE:

Table 2: Proposed training topics for the MMS capacity building program

Topic 1	Assimilation
Modules	Introduction to Data Assimilation
	Types of Data Assimilation Techniques
	 Sequential Data Assimilation Methods (e.g., Kalman Filter, Ensemble Kalman Filter)
	Variational Data Assimilation
	Application of Data Assimilation in Weather Forecasting
	 Assimilation of Different Observational Data Sources (e.g., satellite, radar,
	ground-based measurements)
	Hands-on Exercises and Case Studies
Schedule	Day 1 Introduction to Data Assimilation
	 Overview of data assimilation concepts and objectives
	Basic principles of sequential and variational data assimilation
	methods
	Day 2 Sequential Data Assimilation Methods
	Introduction to Kalman Filter and Ensemble Kalman Filter Introduction to Kalman Filter and Ensemble Kalman Filter Introduction to Kalman Filter and Ensemble Kalman Filter
	 Hands-on: Implementing sequential data assimilation techniques Python
	Day 3 Variational Data Assimilation
	Principles of variational data assimilation
	Variational methods for parameter estimation and state estimation
	Hands-on: Variational data assimilation using open-source softwar
	packages
	Day 4 Assimilation of Observational Data Sources
	 Types of observational data used in data assimilation
	 Integration of satellite, radar, and ground-based measurements
	Case studies on assimilating different types of observational data
	Day 5 Application and Challenges
	Real-world applications of data assimilation in weather forecasting
	 Challenges and limitations of data assimilation techniques
Tonio 2	Group projects: Applying data assimilation to real-world weather data High Porfermance Computing High Porfermance Computing On the Porfermance Compu
Topic 2	High Performance Computing
Topic 2 Modules	High Performance Computing Introduction to High Performance Computing for Weather Forecasting
	High Performance Computing Introduction to High Performance Computing for Weather Forecasting HPC Cluster Management
	High Performance Computing Introduction to High Performance Computing for Weather Forecasting HPC Cluster Management Software Update and Maintenance
	High Performance Computing Introduction to High Performance Computing for Weather Forecasting HPC Cluster Management Software Update and Maintenance NWP Model Configuration
	High Performance Computing Introduction to High Performance Computing for Weather Forecasting HPC Cluster Management Software Update and Maintenance NWP Model Configuration Performance Optimization Techniques Advanced Topics
	High Performance Computing Introduction to High Performance Computing for Weather Forecasting HPC Cluster Management Software Update and Maintenance NWP Model Configuration Performance Optimization Techniques Advanced Topics Day 1 Introduction to HPC for Weather Forecasting
Modules	High Performance Computing Introduction to High Performance Computing for Weather Forecasting HPC Cluster Management Software Update and Maintenance NWP Model Configuration Performance Optimization Techniques Advanced Topics
Modules	High Performance Computing Introduction to High Performance Computing for Weather Forecasting HPC Cluster Management Software Update and Maintenance NWP Model Configuration Performance Optimization Techniques Advanced Topics Day 1 Introduction to HPC for Weather Forecasting Overview of HPC and its importance in weather forecasting Basic parallel computing concepts
Modules	High Performance Computing Introduction to High Performance Computing for Weather Forecasting HPC Cluster Management Software Update and Maintenance NWP Model Configuration Performance Optimization Techniques Advanced Topics Day 1 Introduction to HPC for Weather Forecasting Overview of HPC and its importance in weather forecasting Basic parallel computing concepts Introduction to cluster architecture
Modules	High Performance Computing Introduction to High Performance Computing for Weather Forecasting HPC Cluster Management Software Update and Maintenance NWP Model Configuration Performance Optimization Techniques Advanced Topics Day 1 Introduction to HPC for Weather Forecasting Overview of HPC and its importance in weather forecasting Basic parallel computing concepts Introduction to cluster architecture Day 2 HPC Cluster Management
Modules	High Performance Computing Introduction to High Performance Computing for Weather Forecasting HPC Cluster Management Software Update and Maintenance NWP Model Configuration Performance Optimization Techniques Advanced Topics Day 1 Introduction to HPC for Weather Forecasting Overview of HPC and its importance in weather forecasting Basic parallel computing concepts Introduction to cluster architecture Day 2 HPC Cluster Management Basics of cluster architecture and components
Modules	High Performance Computing Introduction to High Performance Computing for Weather Forecasting HPC Cluster Management Software Update and Maintenance NWP Model Configuration Performance Optimization Techniques Advanced Topics Day 1 Introduction to HPC for Weather Forecasting Overview of HPC and its importance in weather forecasting Basic parallel computing concepts Introduction to cluster architecture Day 2 HPC Cluster Management Basics of cluster architecture and components Cluster job submission and management
Modules	High Performance Computing Introduction to High Performance Computing for Weather Forecasting HPC Cluster Management Software Update and Maintenance NWP Model Configuration Performance Optimization Techniques Advanced Topics Day 1 Introduction to HPC for Weather Forecasting Overview of HPC and its importance in weather forecasting Basic parallel computing concepts Introduction to cluster architecture Day 2 HPC Cluster Management Basics of cluster architecture and components Cluster job submission and management Resource allocation and scheduling
Modules	High Performance Computing Introduction to High Performance Computing for Weather Forecasting HPC Cluster Management Software Update and Maintenance NWP Model Configuration Performance Optimization Techniques Advanced Topics Day 1 Introduction to HPC for Weather Forecasting Overview of HPC and its importance in weather forecasting Basic parallel computing concepts Introduction to cluster architecture Day 2 HPC Cluster Management Basics of cluster architecture and components Cluster job submission and management Resource allocation and scheduling Day 3 Software Update and Maintenance
Modules	High Performance Computing Introduction to High Performance Computing for Weather Forecasting HPC Cluster Management Software Update and Maintenance NWP Model Configuration Performance Optimization Techniques Advanced Topics Day 1 Introduction to HPC for Weather Forecasting Overview of HPC and its importance in weather forecasting Basic parallel computing concepts Introduction to cluster architecture Day 2 HPC Cluster Management Basics of cluster architecture and components Cluster job submission and management Resource allocation and scheduling Day 3 Software Update and Maintenance Importance of software updates for weather forecasting models
Modules	High Performance Computing Introduction to High Performance Computing for Weather Forecasting HPC Cluster Management Software Update and Maintenance NWP Model Configuration Performance Optimization Techniques Advanced Topics Day 1 Introduction to HPC for Weather Forecasting Overview of HPC and its importance in weather forecasting Basic parallel computing concepts Introduction to cluster architecture Day 2 HPC Cluster Management Basics of cluster architecture and components Cluster job submission and management Resource allocation and scheduling Day 3 Software Update and Maintenance Importance of software updates for weather forecasting models Best practices for updating software on an HPC cluster
Modules	High Performance Computing Introduction to High Performance Computing for Weather Forecasting HPC Cluster Management Software Update and Maintenance NWP Model Configuration Performance Optimization Techniques Advanced Topics Day 1 Introduction to HPC for Weather Forecasting Overview of HPC and its importance in weather forecasting Basic parallel computing concepts Introduction to cluster architecture Day 2 HPC Cluster Management Basics of cluster architecture and components Cluster job submission and management Resource allocation and scheduling Day 3 Software Update and Maintenance Importance of software updates for weather forecasting models Best practices for updating software on an HPC cluster Version control systems for managing software updates
Modules	High Performance Computing Introduction to High Performance Computing for Weather Forecasting HPC Cluster Management Software Update and Maintenance NWP Model Configuration Performance Optimization Techniques Advanced Topics Day 1 Introduction to HPC for Weather Forecasting Overview of HPC and its importance in weather forecasting Basic parallel computing concepts Introduction to cluster architecture Day 2 HPC Cluster Management Basics of cluster architecture and components Cluster job submission and management Resource allocation and scheduling Day 3 Software Update and Maintenance Importance of software updates for weather forecasting models Best practices for updating software on an HPC cluster
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Modules	High Performance Computing Introduction to High Performance Computing for Weather Forecasting HPC Cluster Management Software Update and Maintenance NWP Model Configuration Performance Optimization Techniques Advanced Topics Day 1 Introduction to HPC for Weather Forecasting Overview of HPC and its importance in weather forecasting Basic parallel computing concepts Introduction to cluster architecture Day 2 HPC Cluster Management Basics of cluster architecture and components Cluster job submission and management Resource allocation and scheduling Day 3 Software Update and Maintenance Importance of software updates for weather forecasting models Best practices for updating software on an HPC cluster Version control systems for managing software updates Day 4 NWP Model Configuration Overview of Numerical Weather Prediction (NWP) models Understanding model configurations and parameters Techniques for optimizing NWP model performance
Modules	High Performance Computing Introduction to High Performance Computing for Weather Forecasting HPC Cluster Management Software Update and Maintenance NWP Model Configuration Performance Optimization Techniques Advanced Topics Day 1 Introduction to HPC for Weather Forecasting Overview of HPC and its importance in weather forecasting Basic parallel computing concepts Introduction to cluster architecture Day 2 HPC Cluster Management Basics of cluster architecture and components Cluster job submission and management Resource allocation and scheduling Day 3 Software Update and Maintenance Importance of software updates for weather forecasting models Best practices for updating software on an HPC cluster Version control systems for managing software updates Day 4 NWP Model Configuration Overview of Numerical Weather Prediction (NWP) models Understanding model configurations and parameters
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Modules	High Performance Computing Introduction to High Performance Computing for Weather Forecasting HPC Cluster Management Software Update and Maintenance NWP Model Configuration Performance Optimization Techniques Advanced Topics Day 1 Introduction to HPC for Weather Forecasting Overview of HPC and its importance in weather forecasting Basic parallel computing concepts Introduction to cluster architecture Day 2 HPC Cluster Management Basics of cluster architecture and components Cluster job submission and management Resource allocation and scheduling Day 3 Software Update and Maintenance Importance of software updates for weather forecasting models Best practices for updating software on an HPC cluster Version control systems for managing software updates Day 4 NWP Model Configuration Overview of Numerical Weather Prediction (NWP) models Understanding model configurations and parameters Techniques for optimization NWP model performance Performance Optimization and Advanced Topics Profiling and benchmarking NWP models
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Modules	High Performance Computing Introduction to High Performance Computing for Weather Forecasting HPC Cluster Management Software Update and Maintenance NWP Model Configuration Performance Optimization Techniques Advanced Topics Day 1 Introduction to HPC for Weather Forecasting Overview of HPC and its importance in weather forecasting Introduction to cluster architecture Day 2 HPC Cluster Management Basics of cluster architecture and components Cluster job submission and management Resource allocation and scheduling Day 3 Software Update and Maintenance Importance of software updates for weather forecasting models Best practices for updating software on an HPC cluster Version control systems for managing software updates Day 4 NWP Model Configuration Overview of Numerical Weather Prediction (NWP) models Understanding model configurations and parameters Techniques for optimizing NWP model performance Day 5 Performance Optimization and Advanced Topics Performance Optimization strategies for NWP models Identifying performance bottlenecks Parallelization strategies for NWP models GPU-accelerated computing for weather forecasting
Modules	High Performance Computing Introduction to High Performance Computing for Weather Forecasting HPC Cluster Management Software Update and Maintenance NWP Model Configuration Performance Optimization Techniques Advanced Topics Day 1 Introduction to HPC for Weather Forecasting Overview of HPC and its importance in weather forecasting Basic parallel computing concepts Introduction to cluster architecture Day 2 HPC Cluster Management Basics of cluster architecture and components Cluster job submission and management Resource allocation and scheduling Day 3 Software Update and Maintenance Importance of software updates for weather forecasting models Best practices for updating software on an HPC cluster Version control systems for managing software updates Day 4 NWP Model Configuration Overview of Numerical Weather Prediction (NWP) models Understanding model configurations and parameters Techniques for optimizing NWP model performance Performance Optimization and Advanced Topics Performance Optimization and Advanced Topics Performance Optimization strategies for NWP models Identifying performance bottlenecks Parallelization strategies for NWP models GPU-accelerated computing for weather forecasting Discussion on emerging trends and future directions in HPC for
Modules	High Performance Computing Introduction to High Performance Computing for Weather Forecasting HPC Cluster Management Software Update and Maintenance NWP Model Configuration Performance Optimization Techniques Advanced Topics Day 1 Introduction to HPC for Weather Forecasting Overview of HPC and its importance in weather forecasting Introduction to cluster architecture Day 2 HPC Cluster Management Basics of cluster architecture and components Cluster job submission and management Resource allocation and scheduling Day 3 Software Update and Maintenance Importance of software updates for weather forecasting models Best practices for updating software on an HPC cluster Version control systems for managing software updates Day 4 NWP Model Configuration Overview of Numerical Weather Prediction (NWP) models Understanding model configurations and parameters Techniques for optimizing NWP model performance Day 5 Performance Optimization and Advanced Topics Performance Optimization strategies for NWP models Identifying performance bottlenecks Parallelization strategies for NWP models GPU-accelerated computing for weather forecasting

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Modules	•	Introduction to MESSIR NEO and Basic Concepts
	•	Data Ingestion and Processing
	•	Data Analysis and Visualization
	•	Advanced Features and Customization
	•	Integration, Deployment, and Best Practices
Schedule	Day 1	Introduction to MESSIR NEO and Basic Concepts
		Overview of MESSIR NEO and its role in weather data management
		Understanding the basic features and functionalities of MESSIR
		NEO
	Day 2	Introduction to weather data formats and standards Data Ingestion and Processing
	Day 2	Data ingestion and Processing Data ingestion techniques for importing weather data into MESSIR
		NEO
		Pre-processing and quality control of weather data within MESSIR
		NEO
		Hands-on exercises on data ingestion and pre-processing workflows
	Day 3	Data Analysis and Visualisation
		Exploratory data analysis techniques for weather data using
		MESSIR NEO
		 Visualisation tools and techniques for analysing weather data
		Hands-on exercises on data analysis and visualisation using
		MESSIR NEO
	Day 4	Advanced Features and Customisation
		Advanced data analysis techniques
		Spatial interpolation techniques
		Data assimilation
		Customisation options
		Time series analysis
		Model integration
	Day 5	Integration, Deployment, and Best Practices
		Integration with external systems
		API usage
		Deployment strategies
		Backup and recovery
		Data governance and compliance
		Performance optimization
		Documentation and training
Topic 4	Ensemb	le Forecasting
Modules	•	Introduction to Ensemble Forecasting
	•	Ensemble Prediction Systems and Ensemble Generation Techniques
	•	Post-Processing and Calibration of Ensemble Forecasts
	•	Verification and Evaluation of Ensemble Forecasts
	•	Applications of Ensemble Forecasting in Weather Prediction
	•	Uncertainty Quantification and Communication
<u> </u>	•	Best Practices and Future Directions
Schedule	Day 1	Introduction to Ensemble Forecasting
		Overview of ensemble forecasting concepts and objectives Principles of account to account the concepts and account to account
		Principles of ensemble prediction systems and ensemble generation
	David	techniques
	Day 2	Post-Processing and Calibration
		 Post-processing techniques for improving ensemble forecasts Calibration methods for reducing bias and improving reliability
	Day 2	Hands-on: Post-processing and calibration of ensemble forecasts Verification and Evaluation
	Day 3	
		 Metrics for verifying and evaluating ensemble forecasts Comparative analysis of ensemble performance
		 Comparative analysis of ensemble performance Hands-on: Verifying and evaluating ensemble forecasts using
		Hands-on: Verifying and evaluating ensemble forecasts using verification tools
	Day 4	Applications and Case Studies
	Day 4	
		 Real-world applications of ensemble forecasting in weather prediction
		Case studies on using ensemble forecasts for different weather
		phenomena
		Group projects: Analysing ensemble forecast data and identifying
		Group projecte. A maryoning orioemble forecast data and identifying

		key findings
	Day 5	Uncertainty Quantification and Communication
		 Techniques for quantifying and communicating forecast uncertainty Best practices for interpreting and disseminating ensemble forecast information
		Group projects: Developing strategies for effectively communicating ensemble forecast uncertainty to stakeholders
Topic 5		l Forecasting
Modules		Introduction to Seasonal Forecasting
		Climate Variability and Teleconnections
		Dynamical and Statistical Seasonal Forecasting Models
		Predictability and Sources of Seasonal Predictability Skill Assessment and Verification of Seasonal Forecasts
		Applications of Seasonal Forecasting in Climate Risk Management
		Emerging Trends and Future Directions
Schedule	Day 1	Introduction to Seasonal Forecasting
		Overview of seasonal forecasting objectives and challenges
		 Principles of climate variability and teleconnections
	Day 2	Dynamical and Statistical Models
		Introduction to dynamical and statistical seasonal forecasting
		 models Hands-on: Building and validating statistical models for seasonal
		prediction
	Day 3	Predictability and Sources of Predictability
		Sources of seasonal predictability (e.g., ocean-atmosphere
		interactions, land surface processes)
		Factors influencing the skill and reliability of seasonal forecasts
	Day 4	Skill Assessment and Verification
		Metrics for assessing the skill and reliability of seasonal forecasts
		 Comparative analysis of different seasonal forecasting models Hands-on: Skill assessment and verification of seasonal forecasts
	Day 5	Applications and Future Directions
	Day 0	···
		Teal-world additions of Seasonal forecasting in climate risk
		 Real-world applications of seasonal forecasting in climate risk management
		 Real-world applications of seasonal forecasting in climate risk management Emerging trends and future directions in seasonal prediction
		 management Emerging trends and future directions in seasonal prediction research
		 management Emerging trends and future directions in seasonal prediction research Group projects: Developing strategies for applying seasonal
Tonic 6	Weather	 management Emerging trends and future directions in seasonal prediction research Group projects: Developing strategies for applying seasonal forecasts to specific climate-related challenges
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Modules	• II • I	management Emerging trends and future directions in seasonal prediction research Group projects: Developing strategies for applying seasonal forecasts to specific climate-related challenges Radar – Flood Link Flood Forecasting System Design Data Acquisition and Management Radar Data Processing Spatial and Temporal Analysis Threshold-Based Triggering Hydrological-Hydraulic Modelling and Forecasting Flood Forecasting System Design Introduction to flood forecasting system design principles Defining the level of service for the system Identifying data requirements for flood forecasting Designing the platform architecture for operational implementation
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Modules	• II • I	management Emerging trends and future directions in seasonal prediction research Group projects: Developing strategies for applying seasonal forecasts to specific climate-related challenges Radar – Flood Link Flood Forecasting System Design Data Acquisition and Management Radar Data Processing Spatial and Temporal Analysis Threshold-Based Triggering Hydrological-Hydraulic Modelling and Forecasting Flood Forecasting System Design Introduction to flood forecasting system design principles Defining the level of service for the system Identifying data requirements for flood forecasting Designing the platform architecture for operational implementation
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Modules	• II	management Emerging trends and future directions in seasonal prediction research Group projects: Developing strategies for applying seasonal forecasts to specific climate-related challenges Radar – Flood Link Flood Forecasting System Design Data Acquisition and Management Radar Data Processing Spatial and Temporal Analysis Threshold-Based Triggering Hydrological-Hydraulic Modelling and Forecasting Flood Forecasting System Design Introduction to flood forecasting system design principles Defining the level of service for the system Identifying data requirements for flood forecasting Designing the platform architecture for operational implementation Data Acquisition and Management Understanding data sources required for flood forecasting Data acquisition strategies and methods Implementation of the MESSIR NEO system for data access and management Hands-on exercises on data acquisition and management processes
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Modules	• II	management Emerging trends and future directions in seasonal prediction research Group projects: Developing strategies for applying seasonal forecasts to specific climate-related challenges Radar – Flood Link Flood Forecasting System Design Data Acquisition and Management Radar Data Processing Spatial and Temporal Analysis Threshold-Based Triggering Hydrological-Hydraulic Modelling and Forecasting Flood Forecasting System Design Introduction to flood forecasting system design principles Defining the level of service for the system Identifying data requirements for flood forecasting Designing the platform architecture for operational implementation Data Acquisition and Management Understanding data sources required for flood forecasting Data acquisition strategies and methods Implementation of the MESSIR NEO system for data access and management Hands-on exercises on data acquisition and management Hands-on exercises on data acquisition and management Introduction to radar data processing for flood forecasting
Modules	• II	management Emerging trends and future directions in seasonal prediction research Group projects: Developing strategies for applying seasonal forecasts to specific climate-related challenges Radar – Flood Link Flood Forecasting System Design Data Acquisition and Management Radar Data Processing Spatial and Temporal Analysis Threshold-Based Triggering Hydrological-Hydraulic Modelling and Forecasting Flood Forecasting System Design Introduction to flood forecasting system design principles Defining the level of service for the system Identifying data requirements for flood forecasting Designing the platform architecture for operational implementation Data Acquisition and Management Understanding data sources required for flood forecasting Data acquisition strategies and methods Implementation of the MESSIR NEO system for data access and management Hands-on exercises on data acquisition and management processes Radar Data Processing Introduction to radar data processing for flood forecasting Extracting relevant information from radar data (precipitation intensity, rainfall rates, storm movement patterns)

	Day 4	Spatial and Temporal Analysis	
		Spatial analysis of radar data for identifying flood-prone areas	
		 Temporal aggregation of rainfall data for capturing precipitation dynamics 	
		 Integration of historical flood-prone zones and terrain characteristics for spatial analysis 	
		Hands-on exercises on spatial and temporal analysis techniques	
	Day 5	Threshold-Based Triggering and Modelling	
	Establishing rainfall thresholds based on historical flood even expert knowledge		
	Testing threshold levels in hydrological-hydraulic models		
		 Comparison of radar-derived rainfall accumulations with predefin threshold values 	
		Introduction to hydrological-hydraulic modelling for flood forecasting	
		Implementation of hindcast mode models and testing in different areas	
		Integration of radar and forecasting data with hydrological models	
		Practical sessions on threshold-based triggering and hydrological-hydraulic modelling	
Topic 6	Deep Lea		
Modules		ntroduction to Deep Learning for NWP	
		Convolutional Neural Networks (CNNs) for NWP	
		Recurrent Neural Networks (RNNs) and Long Short-Term Memory (LSTM)	
		Networks	
	• (Generative Adversarial Networks (GANs) and Variational Autoencoders (VAEs)	
	fo	or Weather Data Generation	
	• A	Advanced Topics and Practical Applications	
Schedule	Day 1	Introduction to Deep Learning for NWP	
		 Overview of deep learning concepts and applications in weather forecasting 	
		Introduction to neural networks and their architectures	
		Basics of data preprocessing for NWP datasets	
	Day 2	CNNs for NWP	
		 Understanding CNNs and their applications in image-based NWP tasks 	
		Hands-on exercises on building and training CNN models for weather pattern recognition	
	Day 3	RNNs and LSTMs for NWP	
	- 3.7	Introduction to RNNs and LSTMs for sequence modelling in NWP	
		Hands-on exercises on building and training RNN and LSTM models	
		for time-series weather data prediction	
	Day 4	GANs and VAEs for Weather Data Generation	
		Overview of GANs and VAEs and their applications in generating	
		synthetic weather data	
		 Hands-on exercises on building and training GAN and VAE models 	
		for generating weather data	
	Day 5	Advanced Topics and Practical Applications	
		Transfer learning and domain adaptation techniques for NWP	
		 Model deployment and integration into operational forecasting systems 	
		Case studies and practical applications of deep learning in weather	
		forecasting	

- 8. Training-of-Trainers approaches will be applied as much as possible, for institutionalization purposes.
- 9. Trainings abroad or study tours for MMS staff may be included in the capacity building program, as informed by the capacity needs assessment.
- 10. Provisions will be made to ensure the integration of gender and social inclusion issues into the capacity building program, for example on content, representation, participation, timing and logistics. At least 30% of all trainees will be women.

D. Outputs

11. The expected outputs for the assignment, with estimated timeline, are shown in Table 3.

Table 3: Outputs and timeline

	Deliverables (per each study)	Timeline
1.	Inception report, including updated methodology and work	1 month after signing of
	plan	contract
2.	Capacity needs assessment report	6 months
3.	Draft capacity building program, including software and	9 months
	hardware requirements	
4.	Draft training materials	12 months
5.	Training reports	2 weeks after each training
		event
6.	Final Report, documenting the capacity building program,	Draft – 34 months
	training evaluations, lessons learned and	Final – 36 months
	recommendations for replication and scaling	

12. All reports are to be prepared in English. Several review rounds are expected until the approval of all reports by the MMS and MOCCEE.

E. Team Composition

13. The following positions are proposed (Table 4), with a number of key positions required. The firm may propose different or additional experts as non-key positions as deemed required to undertake the work. Firms or institutions accredited by the WMO are preferred.

Table 4: Team composition and qualifications

No	Position	Qualifications	Person months	
Key positions				
1	Early Warning Systems Specialist / Team Leader (international)	 A master's degree in environmental engineering or related field. Minimum 10 years of experience, preferably in SIDS and the Asia Pacific. Advanced knowledge of weather and flood forecasting models, interpretation and applications, including the design and implementation of related training programs. Familiarity with WMO standards and international frameworks. 	9.0	
2	Meteorologist (international)	 A master's degree in meteorology, or related field. Minimum 6 years of experience, preferably in SIDS and the Asia Pacific. Advanced knowledge in weather monitoring, forecasting and early warning, including the application of remote sensing data, integration of climate projections, and end-to-end EWS. Familiarity with WMO standards and international frameworks. 	6.0	
3	Hydrology Specialist (international)	 A master's degree in hydrology, water resources engineering, or related field. Minimum 6 years of experience in hydrological modelling, GIS and spatial analysis, preferably for island ecosystems. 	6.0	

		Familiarity with WMO standards and international frameworks.	
Non-key positions			
4	Capacity Development Specialist (international)	 A master's degree in social sciences, communications, or related field. Minimum 6 years of experience in capacity development, preferably in SIDS and the Asia Pacific. Advanced knowledge of innovative tools and approaches to capacity building. 	3.0
Total:			24.0

F. Implementation Arrangements

- 14. The work will be administrated and coordinated by the Project Management Unit hosted in the MOCCEE. The PMU will be technically supported by an International Weather Observatory Specialist and International Early Warning Specialist, who will provide technical oversight to all activities under the Project Output 1, including the capacity building program for MMS. ADB will provide overall quality control.
- 15. The firm will conduct all works with impartiality towards gender, culture, religion and ethnicity and be respectful of local customs and the local environment while conducting the surveys.

JAPAN FUND FOR PROSPEROUS AND RESILIENT ASIA AND THE PACIFIC GUIDANCE NOTE ON JAPANESE VISIBILITY

I. Introduction

In May 2000, the Asian Development Bank (ADB) established the Japan Fund for Poverty Reduction (original JFPR), a single-partner trust fund to support innovative poverty reduction and related social development projects that can add substantive value to ADB financed projects. In 2009, JFPR went through a major change that paved the way for a more comprehensive approach in addressing poverty, building human resources, and empowering institutions and communities in the recipient developing member countries (DMC) by combining project grant and technical assistance support under one umbrella. On 1 September 2021, the Board of Directors approved renaming the original JFPR to the Japan Fund for Prosperous and Resilient Asia and the Pacific (JFPR) to enhance its role following the Government of Japan's (GOJ) announcement in May 2021 at the 54th ADB Annual Meeting. It is positioned as the next-level work to help lift remaining populations above the poverty threshold and bring everyone on a sustainable path to prosperity and resilience. In the span of more than 2 decades, GOJ has been providing generous contributions through ADB and it is but fitting and proper that said contributions are acknowledged and the recipients and general public are informed of the source of the funding assistance both at the Fund level and at the individual project levels. The purpose of this note is to provide guidance on measures to ensure that the contribution of GOJ in supporting JFPR is widely recognized.¹¹

II. Statement on Japanese Visibility

- 2. Project teams are required to help promote the visibility and local awareness of JFPR in recipient countries through the following:
 - a. All press releases issued by ADB with respect to JFPR shall refer to the financial contribution from the GOJ;¹²
 - b. Signing ceremonies and other publicity events are encouraged, inviting Japan embassy officials, JICA staff, local and international press;¹³
 - c. Civil works, project billboards/signages, goods and equipment must carry the JFPR and Japan ODA logos (see below). Likewise, all publications and training programs must bear the said logos, including all collaterals used (i.e., training materials, banners, posters, flyers, etc.) that are financed by JFPR; these logos are available in the <u>JFPR SharePoint Page;</u>14





From the People of Japan

- d. Publications, reports, training programs, seminars and workshops financed by JFPR shall acknowledge receipt of funding from GOJ;
- e. Recipients are encouraged to ensure that JFPR-financed activities are well covered by local print and electronic media, and that all related publicity materials, and official

notices explicitly acknowledge funding from GOJ. Below is the suggested standard text to be used by those who prepare publicity materials: "The grant fund for (project name/activity) was received from the Japan Fund for Prosperous and Resilient Asia and the Pacific financed by the Government of Japan through the Asian Development Bank.

III. Participation of Japanese Entities in Implementation

3. It is also important to generate visibility of the project within Japan. Involvement or cooperation with Japanese experts, financial resources and technologies are encouraged; occasional information sessions on JFPR for Japanese organizations may also be conducted. It is also highly recommended that ADB involve and cooperate with Japanese organizations including NGOs, civil society organizations, aid agencies in particular JICA and JBIC, the private sector enterprises or academic institutions.

IV. Reporting

4. At the end of the project, the completion report submitted by the project team shall include an appendix of Japanese visibility evidence such as photos,15 press releases, articles or write-ups, video documentation (or other forms of media), and testimonials from project recipients and/or implementers. All knowledge products produced under the JFPR financing for both project grants and TAs shall be listed and reported in their respective completion reports. Sample products generated from the project grant are requested to be made available to the Partner Funds Division of the Sustainable Development and Climate Change Department (SDPF) for inclusion in future exhibits. Copies of publications16 that are outputs of the project shall be submitted to SDPF.

V. Visibility Support by ADB

- 5. SDPF promotes visibility of JFPR by: (i) informing Department Heads and project officers of the importance of achieving high visibility in order to garner support for JFPR from Japanese officials and taxpayers; (ii) informing Country Directors of the importance of signing ceremonies to Japanese officials and the public to ensure recognition and support for JFPR funding; (iii) continuing widespread distribution of the JFPR Annual Report and inclusion of JFPR information in relevant ADB documents, (iv) creation of knowledge products such as project infographics, videos, and other publicity materials in collaboration with project teams, and (v) conduct of knowledge sharing events (i.e. exhibit at the ADB Annual Meeting, JFPR seminars, etc.) and occasional information sessions for Japanese organizations.
- 6. Resident Mission staff are requested to forward copies of all visibility materials, such as press releases, newspaper and magazine articles, and photographs (including descriptive captions) to SDPF's assigned focal staff for JFPR.

JAPAN FUND FOR PROSPEROUS AND RESILIENT ASIA AND THE PACIFIC GUIDANCE NOTE ON COORDINATION WITH THE EMBASSY OF JAPAN AND JICA

I. INTRODUCTION

1. The Final Report on the Review of Japanese Official Development Assistance¹ (ODA) underscores the need for strategic and effective aid. One way to ensure alignment of the Japan Fund for Prosperous and Resilient Asia and the Pacific (JFPR) projects and technical assistance (TA) with Government of Japan's (GOJ) bilateral assistance strategy for a particular developing member country (DMC) is by bringing on board the comments and suggestions of the Embassy of Japan (EOJ) and the Japan International Cooperation Agency (JICA).² Thus, the summary of consultations with EOJ and JICA (to include, date of consultation, name and position of staff met, and EOJ and JICA's response) shall be included in the proposal submitted to the Partner Funds Division of the Sustainable Development and Climate Change Department (SDPF).³ This Guidance Note provides detailed instructions regarding coordination activities with EOJ and JICA.⁴

II. EOJ AND JICA CONTACT PERSONS

2. As soon as project officer informs SDPF of the intent to apply for JFPR funding, project officer will consult with EOJ and JICA. SDPF may identify the appropriate contact persons in EOJ and JICA, when needed.

III. CONSULTATION WITH EOJ AND JICA – PROPOSAL PREPARATION⁵

- 3. At concept stage, project officer shall consult with EOJ and JICA through e-mail the proposed project to, (i) seek if it is in line with Japan ODA priorities, (ii) ensure no duplication, (iii) explore possible collaborations for the project, and (iv) present the concept itself, with copy to SDPF.
- 4. Upon SDPF's confirmation to proceed with proposal preparation, the project officer may arrange the project design meeting with EOJ and JICA. This meeting intends to explain and discuss the actual project design. This is ideally conducted during the fact-finding mission.⁶ The proposal,⁷ shall be provided to EOJ and JICA with copy to SDPF at least 5 working days before the meeting to give ample time for review and consideration. After the meeting, if needed, the project officer, may follow-up with EOJ and JICA, and respond to requests for clarification.
- 5. In the case of regional TAs, the draft proposal shall be sent by email to EOJ and JICA contact persons on no-objection basis requested within a 2-week timeframe.

³ GOJ gives importance on the inputs provided EOJ and JICA during the internal approval process.

¹ Ministry of Foreign Affairs of Japan. 2010. ODA Review - Summary of the Final Report. Tokyo.

² Incorporated administrative agency in charge of administering Japan's ODA.

⁴ A copy of the Guidance Note on Coordination with Embassy of Japan and JICA shall be appended to the Project Administration Manual of a (i) stand-alone JFPR project grant, or (ii) ADB-investment project where a JFPR project grant or TA is attached, as guide to the project team and the government, during project implementation.

⁵ All feedback received from EOJ and JICA must be duly reflected in the (i) Initial JFPR Proposal Checklist, (ii) Detailed JFPR Proposal Checklist, and/or (iii) Supplementary Documents of Project Grant.

⁶ If a meeting with EOJ and/or JICA is not possible, email exchange, telephone discussion or any other form of communication may be used.

⁷ Draft Grant assistance report or JFPR Linked Document (for project grants) and draft TA Report (for TAs).

IV. COORDINATION WITH EOJ AND JICA – UPON APPROVAL OF THE PROPOSAL

- 6. Project officer shall inform EOJ and JICA about ADB's approval. Project officers are strongly encouraged to conduct signing or launching ceremonies with the attendance of EOJ officials.⁸
- 7. In coordination with the resident mission, the project officer shall inform EOJ and SDPF of the signing ceremony— at least 10 working days in advance. SDPF then informs GOJ of this activity. The project officer shall draft news release in consultation with the Department of Communications and coordinate arrangements with the resident mission. Local and international press are encouraged to be invited to these ceremonies.

V. COORDINATION WITH EOJ AND JICA – DURING PROJECT IMPLEMENTATION AND UPON PROJECT COMPLETION

8. Throughout implementation, the project officer shall inform EOJ and JICA about project progress, milestones, and outcomes, and discuss when major changes in scope and objectives are required. From time to time, EOJ and JICA may also wish to join completion review missions to see project results and to interact first-hand with project recipients. Lessons from the JFPR projects are also requested to be shared to enable both sides to explore and seek potential collaboration. Completion reports are required to be submitted by the project officer to EOJ and JICA.⁹

VI. ROLE OF THE RESIDENT MISSION AND SDPF

- 9. Project officer's communications with EOJ and JICA should be done in coordination with the resident mission¹⁰ with copy to SDPF. If needed, SDPF supports to identify the appropriate staff to be consulted.
- 10. Resident mission also arranges the Grant Agreement/TA letter signing event (section IV) and keeps the overall coordination/relationship management with EOJ and JICA.
- 11. SDPF's role are as follows: (i) provide contact details of relevant staff from EOJ and JICA for project consultation when needed; and (ii) liaise any need for clarification by EOJ and JICA in coordination with the project officer, during project consultation.

¹ January 2022

⁸ Please refer to the Guidance Note on Japanese Visibility for details on visibility requirements under JFPR.

⁹ Links to the completion reports will suffice.

¹⁰ Please inquire respective resident missions on their protocols or coordination arrangements with EOJ and JICA.

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ⁱ Geographic scope for Output 1 is Haa Dhallu and Addu atolls.

Gender responsiveness entails providing women equal opportunities to access resources to for upskilling and learning with view of strengthening their participation and voice in household, business or community decisions.

iii Include developing pre- and post-training evaluation surveys which should be carried out for all training activities including in Output 3.

Population of women accounts for 42.8%. Diverse participation will be encouraged. It targets participation of the WDC, women members in the local councils, and women-led local civil society organizations (CSOs). Vulnerable groups: people with disabilities, older people, disadvantaged youth, income poor groups, and migrants in the project areas will also be mobilized to participate. Other relevant island-based civil society organizations and universities with local campuses will also be mobilized to participate.

These materials will be integrated in e-based communication tools and platforms of MMS, WDC, and local councils; and be accessible by communities particularly women and keep them posted on potential climate risks and adaptation measures.

wi Members of the WDC, women officials from the local council, and women island residents will be mobilized to participate in key consultations, or collaboration on implementation of key activities.

Geographic scope for Output 2 is also Haa Dhallu and Addu atolls.

viii Agribusiness development sessions will incorporate financial literacy for entrepreneurs and relevant trends in agriculture value chain, product branding, and marketing.

^{ix} 75% of the 30% (or 22.5%) target will be from women. About 54% of the rural farmers are women (see GA). Meanwhile, 19% of youth in the country are unemployed (see RRP). The matching grants will be offered not only for women farmers, but it will also other stakeholders (i.e., youth, entrepreneurs, CSOs, academe, etc.), to ensure inclusive access to potential financial aid for business start-ups or other service ventures.

x Report indicates additional human resource requirements of 24 staff. The target 7 (30%) of the new staff are female.

xi Women-led refers to approved proposals developed by women representing themselves individually (i.e., as a farmer, entrepreneur, homemaker, teacher, etc.) or as a member of a group or organization, local or national in scope.