



Toward Risk-Aware and Climate-resilient communities (TRACT)

**Strengthening climate services and impact-based
multi-hazard early warning in Maldives**

Annex 13b

Stakeholder Consultations – Reports of Proceedings



Early Warning for All (EW4All) in the Maldives: National Consultations and Launch

Report of Proceedings
4 July 2023
Male, Maldives



CONTENTS

- 1. Background**
- 2. Objectives**
- 3. EWS Pillar Leads**
- 4. EWS Gap Analysis**
- 5. Formulating EW4All Common Agenda/Action Plan**
- 6. Proposed Next Steps**

Annex 1: Workshop Programme

Annex 2: List of Participants

Annex 3: Overview of EWS Pillars by National Stakeholders

Annex 4: Preliminary EWS Gap Analysis

Maldives: Early Warnings for All (EW4All)

1. Background

In 2023, the UN Secretary-General, Antonio Guterres, announced Early Warnings for All (EW4All) as a global call to action to ensure that every person on Earth is protected by multi-hazard, inclusive and end-to-end early warning systems by 2027.

On July 4, 2023, a national consultation to launch Early Warnings for All (EW4All) was convened by the Republic of the Maldives, hosted by H.E. Ms. [REDACTED], the Minister of Environment, Climate Change and Technology (MECCT), and chaired by Ms. [REDACTED], State Minister, MoECCT; in cooperation with the United Nations Country Team (UNCT) led by the UN Resident Coordinator, [REDACTED] with support from UNDRR and WMO as global co-leads for EW4All. **Annex 1** outlines the programme.

Chairs of the four pillars included: Mr. [REDACTED], State Minister, National Centre for Information Technology (NCIT); Mr. [REDACTED], Chief Executive, National Disaster Management Authority (NDMA); Mr. [REDACTED], Director General of the Maldives Meteorological Service (MMS); Ms. [REDACTED], Secretary General of the Maldives Red Crescent (MRC). A full list of participants is outlined in **Annex 2**.

2. Objectives

In convening a broad range of national stakeholders active across the entire Early Warning Systems (EWS) value cycle, the event sought to:

1. Take stock of the current state of EWS in the Maldives and promote a shared understanding of progress in implementing the four EWS pillars;
2. Explore linkages and alignment among ongoing and upcoming initiatives, and consolidate key stakeholder commitments to strengthen national and sub-national early warning systems;
3. Affirm existing national coordination mechanisms or establish a new mechanism (as deemed most relevant) to facilitate multi-stakeholder efforts to scale-up end-to-end EWS across the four pillars, linking national and local engagement.
4. Agree on a process for identifying priority areas for action to address national EWS gaps (informed by the minimum core capabilities checklist tool circulated to national partners by the UNCT);
5. Identify key challenges and barriers to risk-informing, issuing, communicating and acting on early warnings effectively, as well as to recommend targeted actions to overcome these, in line with national developmental priorities; and
6. Provide initial inputs toward the possible development of a multi-year, multi-stakeholder EW4All national action plan (or common agenda), around which all actors can marshal coordinated resources, technical assistance, and long-term support.

3. EWS Pillar Coordinators

Affirming the commitment of the Maldives to the objectives and spirit of EW4All, four national organizations came forward to lead the articulation of priorities and gaps to be addressed across each of the four EWS pillars:

Pillar 1: Disaster Risk Knowledge (National Disaster Management Authority, with support from UNDRR)

Pillar 2: Observations and Forecasting (Maldives Meteorological Service, with support from WMO)

Pillar 3: Warning Dissemination and Communication (National Centre for Information Technology, with support from the International Telecommunications Union)

Pillar 4: Preparedness and Response (Maldives Red Crescent, with support from the International Federation of the Red Cross and Red Crescent Societies)

Cross-pillar collaboration in the areas of a) governance, policy & legislation; b) stakeholder coordination; c) advocacy & awareness; d) planning & finance; and, e) monitoring, evaluation and learning will be championed by Ms. [REDACTED], State Minister of MoECCT, and the UN Resident Coordinator, drawing together each of the pillar coordinators on a regular basis to promote cross-fertilization of experiences, opportunities to improve the effectiveness of end-to-end EWS at national and sub-national levels, articulation of common challenges and joint solutions, and overall leadership and guidance for the achievement of EW4All in the Maldives.

Participants underscored EWS as a proven, effective, and affordable disaster risk reduction and climate adaptation measure, that save lives and provide multiple returns on investment. The Maldives have made appreciable investments to improve its EWS, including most recently the *Guide for Developing School Emergency Operations Plan in the Maldives*, the *Emergency Preparedness and Response Plan 2022 for the Education Sector*, ongoing training and capital investment to improve observation and forecasting, and building out dissemination of advisories and warning through multiple channels.

Maldives: Early Warnings for All (EW4All)

Notwithstanding this progress, major gaps in EWS continue to affect the Maldives, its people, infrastructure, critical services, and its economy. Translating early warnings into impact-based forecasts which can incentivize risk-informed preventative, preparedness and early action can yield multiple benefits to avert and minimize loss and damage from more frequent and severe hazard events such as tidal surge, flooding and extreme weather events.

4. EWS Gap Analysis by National Stakeholders

While participants acknowledged previous investments in the EWS of the Maldives, many highlighted the benefits of further strengthening multi-hazard EWS as part of overall national efforts to ramp up investment in disaster risk reduction and climate change adaptation for the most-at-risk people, as well as highly vulnerable economic sectors (tourism and fisheries).

Representatives from ministries, departments and agencies emphasized ongoing gaps across each EWS pillar, presenting key priorities for action. **Annex 3** provides a general overview of the current status of each EWS pillar in the Maldives, while **Annex 4** provides an overview of EWS gaps highlighted by national participants, categorized by issues and/or opportunities which can be addressed in short-term (within 18 months) and medium- to longer-term (2+ years) under the auspices of EW4All achievement in the Maldives.

Participants raised the importance of involving all sectors of society and taking an intersectional approach that reflects how gender, age, persons with disabilities, and other factors can affect people's ability to anticipate and prepare to mount effective responses based on timely, reliable and action-oriented early warnings and advisories.

National stakeholders underscored the need to not only better coordinate EWS initiatives already underway or planned, but also to address outstanding technical and capacity gaps that these initiatives address partially or not at all across all four elements of EWS. Stakeholders emphasized the need to improve collective understanding about how Maldivians and sectors currently receive, understand and act on advisories and warning to adopt risk-reducing behaviours.

Participants highlighted scope to improve national loss and damage accounting, multi-hazard risk mapping, capacity building to address risk knowledge gaps relevant to EWS (including infrastructure vulnerability), development and implementation of Standard Operating Procedures (SOPs) across the EWS value-chain, and improving access and use of risk data for improve impact-based forecasting. Other areas cited by national stakeholders included: accelerating behavioural change through better monitoring about how advisories and early warning are currently crafted and how people respond (including gender analysis); scaling up risk education, particularly in remote atolls; and, collection of exposure and vulnerability data, particularly targeted persons with disabilities and the elderly. Participants raised the importance of strengthening and putting into action a data sharing policy for mutual sharing of weather and climate data with stakeholders within the country, and co-design and co-produce tailor-made products for user sectors.

5. Formulating a Common Agenda for EW4All in the Maldives

Building on the preliminary gap analysis undertaken by participants, including the opportunities they identified to address these gaps within the timeframe of the EW4All call to action, national stakeholders endorsed the formulation of a common agenda for EW4All achievement in the Maldives to be prepared over the next 4-5 months and covering the period 2023 – 2027. MECCT endorsed further consultations with local councils, including women's development committees and community civil protection groups, to ensure their buy-in and engagement in framing the common agenda for EWS.

The goal of the *EW4All Common Agenda for the Maldives* is to identify opportunities to scale-up and strengthen EWS based on the outcomes of the country-led gap analysis, including findings from completion of the *EW4All Minimum Core Capability (MCC) Checklist*, and to summarize national ambitions under a common action agenda that multiple EWS actors can rally around to guide multi-year and predictable investment, technical and financial support aligned to national priorities.

Indicative content for the common EWS agenda include:

1. Summary of gaps, needs, and priorities across all four EWS pillars and five cross-pillar themes;
2. Key expected outcomes and outputs to implement EWS for all by 2027; that will lead to long-term, sustainable, inclusive and optimal early warning operations in the country;
3. Indicative schedule (by outcome, output, and/or component);
4. Indicative finance requirements;
5. Performance milestones, monitoring, evaluation and learning framework; and
6. Annexes, e.g., summary of past, existing and planned EWS investments; policy and regulatory framework; organizational arrangements and capacity needs; current and planned observation, monitoring and forecasting infrastructure and systems; risk knowledge gaps;

As Chair for EW4All in the Maldives, MECCT will liaise with pillar leads to agree on an approach and scope for preparation of the common agenda, including the composition of any task teams as appropriate, and drawing a consensus on timeline and technical support needs from partners.

Agreement was reached that senior and technical level coordination platforms already operate at national and sub-national levels will be leveraged to guide the development and implementation of the EW4All common agenda for the Maldives, including oversight across all four pillars and inter-pillar priorities.

Maldives: Early Warnings for All (EW4All)

Reflecting the principles of inclusion of EW4All, representatives will be drawn from national government, local authorities, NGOs, private sector (e.g., telecoms), academia, civil society, United Nations Country Team, and representatives of community and industry associations.

Participants underscored the value in both the process and the product of a national EW4All action plan; specifically, the shared value to be gained by convening partners together in a joint process of formulating a multi-stakeholder, multi-year, costed EW4All common agenda or action plan, as well as in the final product which can be leveraged to crowd-in and coordinate additional financial, technical and operational support across all four EWS pillars available from multiple sources such as multilateral climate funds (e.g., Green Climate Fund, Global Environment Facility, etc.), multi-donor trust funds and mechanisms (Climate Risk and Early Warning Systems – CREWS; Systemic Observations Financing Facility – SOFF; Complex Risks Analytics Fund – CRAF'd, etc.), as well as bilateral and development cooperation partners active in the Maldives.

The EW4All common agenda and/or action plan can inform and drive policy, programme and project priorities and investment pipelines to achieve the objectives of EW4All. Based on an analysis of gaps and opportunities, the common agenda can outline the most impactful collaborations, interventions, and activities to maximize the effectiveness and impact of end-to-end early warning systems in the Maldives to protect people, services, infrastructure, and vital economic sectors.

6. Proposed Next Steps

As summarized by the Chair Ms. [REDACTED], the following are proposed next steps to be spearheaded by the overall focal point for EW4All in the Maldives (MECCT) and the respective national pillar leads, with support as relevant from the United Nations Country Team¹ and international, regional, and national partners:

1. Building on the preliminary gap analysis initiated prior and during the national consultation and EW4All launch, country partners are encouraged to finalize completion of the *EW4All Minimum Core Capability Checklist* to help them identify the regulatory, policy, technical, organizational, infrastructural, financial and other gaps across the four EWS pillars, including interpillar domains, both nationally and at local authority and community levels, the findings of which will be used to inform the formulation of the Maldives EW4All common agenda/action plan.
2. Confirmation that the national focal points have been designated as follows: Pillar 1: Mr. [REDACTED], Deputy Chief Executive, NDMA; Pillar 2, Mr. [REDACTED], Director General (MMS); Pillar 3: Dr. [REDACTED], State Minister, NCIT/MoECCT; and, Pillar 4: Ms. [REDACTED], Secretary General, Maldives Red Crescent (MRC).
3. Agreement among national authorities to develop over the next four to five months a multi-year, multi-stakeholder 'national action plan' or 'common agenda' for EW4All, covering the period 2024-27.
4. Collective endorsement was reached to revitalize existing national coordination mechanisms, including the Disaster Management Committee, to drive coordination and oversight of EW4All achievement in the Maldives, including establishment of any new sub-committees as may be deemed appropriate.

With national focal points for each EW4All pillar confirmed as part of the launch, the Chair signalled that national authorities will convene in July additional internal consultations to determine the scope for the EW4All national plan/common agenda to be formulated over the next 4-5 months. The United Nations Country Team stands ready to support this collaborative effort in the months ahead and will continue liaising with the national focal point to agree specific assistance.

¹ UNCT Maldives, with finance from UNDRR, is able to provide a national consulting expert to support the EW4All national focal point, pillar leads, and other national partners to formulate the common agenda.

Maldives: Early Warnings for All (EW4All)

Annex 1: Programme for National EW4All Consultation and Launch, July 4, 2023

Time	Activity	Facilitators & Presenters
9.00 – 9.05	Recitation of Holy Quran	Maldives National University student (TBC)
9.05 – 9.25	Opening remarks	H.E. Ms. [REDACTED], Minister of Environment, Climate Change and Technology
9.25 – 9.35	Welcome remarks	H.E. Ms. [REDACTED], UN Resident Coordinator Mr. [REDACTED], Director, DRR & Public Services Branch, WMO
9.35 – 10.00	Introduction to the Global Initiative “Early Warnings for All”	Mr. [REDACTED], Programme Management Officer, UNDRR
10.00 – 10.20	Status of national early warning systems	Mr. [REDACTED], Deputy Chief Executive, NDMA Mr. [REDACTED], Director General, MMS
10.20 – 11.20	Interactive discussion on the two presentations	Facilitated discussions led by NDMA, MMS, UNDRR and WMO
11.20-12.30	Presentation and discussion on pillar status and approach to gap analysis. <i>A 10-15 minute powerpoint presentation by national lead for each of the four pillars</i>	<u>Pillar Presenters:</u> Mr. [REDACTED], Deputy Chief Executive, NDMC (Pillar 1) Mr. [REDACTED], Director General, MMS (Pillar 2) Mr. [REDACTED], State Minister, NCIT, MoECCT (Pillar 3) Ms. [REDACTED], Secretary General, MRC (Pillar 4) <u>Group discussion facilitators:</u> Mr. [REDACTED], NDMA & Mr. [REDACTED], UNDRR (Pillar 1) Ms. [REDACTED], MMS & Mr. [REDACTED] / [REDACTED], WMO (Pillar 2) NCIT & Temily [REDACTED], ESCAP (Pillar 3) Mr. [REDACTED], MRC & (TBC), UNDP (Pillar 4)
12.30-13.30	LUNCH & PRAYER break	
13.30-15.00	Presentations and discussion on pillar status and approach to gap analysis (Cont.)	<u>Group discussion facilitators:</u> Mr. [REDACTED] / NDMA & Mr. [REDACTED] / UNDRR (Pillar 1) Ms. [REDACTED] / MMS & Mr. [REDACTED] (Pillar 2) (TBC) / NCIT & Temily [REDACTED] / ESCAP (TBC) (Pillar 3) Mr. [REDACTED] / MRC & (TBC) / UNDP (Pillar 4)
15.00-15.45	Discussion of the coordination and communication mechanism (<i>review existing mechanisms, leading to inclusive multi-stakeholder platform</i>) Agreement on developing a country roadmap, if needed, and priority technical areas	Chair of the session: Ms. [REDACTED], State Minister, MoECCT Presentation by Mr. [REDACTED], UNDRR (TBC) and Mr. [REDACTED] / [REDACTED], WMO (TBC) Discussion by Government representatives, Pillar Leads, partners and stakeholders
15.45-16.00	Summary of agreements & closing remarks	Chair of the session: H.E. Ms. [REDACTED], State Minister, MoECCT

For event slide deck, please see

<https://docs.google.com/presentation/d/12ZUf567gXMct7ceOyHvS5TQroBF8PSic/edit?usp=sharing&ouid=102061639050508230752&rtpof=true&sd=true>.

Maldives: Early Warnings for All (EW4All)

Annex 2: List of Participants

Name	Designation	Organization	Email	Category
The content of this document has been redacted in accordance with the GCF Information Disclosure Policy, as names and contact details are confidential under the disclosure policy of the Accredited Entity.	Minister of State for Environment, Climate Change and Technology	Ministry of Environment, Climate Change and Technology	***The content of this document has been redacted in accordance with the GCF Information Disclosure Policy, as names and contact details are confidential under the disclosure policy of the Accredited Entity.***	Pillar Chairs & Staff
	Resident Coordinator	RCD		UN
	Deputy Director	Communication Authority of Maldives (CAM)		Government Ministries
	Senior Planning Officer	Local Government Authority		Government Ministries
	Director	Local Government Authority		Government Ministries
	Sub-Inspector of Police	Maldives Police Service		Government Ministries
	Inspector of Police	Maldives Police Service		Government Ministries
	Inspector of Police	Maldives Police Service		Government Ministries
	Deputy Director General	Ministry Of Education		Government Ministries
	Assistant Director	Ministry Of Foreign Affairs		Government Ministries
	Director	Ministry Of Foreign Affairs		Government Ministries
	Programme officer	Ministry of Tourism		Government Ministries
	Secretary General	B. Eydhafushi		Local Councils and WDCs
	Councilor	Fuvahmulah City		Local Councils and WDCs
	Vice president of WDC	G.DhThinadhoo		Local Councils and WDCs
	Council Executive	G.DhThinadhoo		Local Councils and WDCs
	Major	Ministry of Defence		Local Councils and WDCs
	Member	Blind association		NGO
	Director of Operations	Maldives Space Research Organisation (MSRO)		NGO
	Research Scientist	Maldives Space Research Organisation (MSRO)		NGO
	Director of Climate Resilience	Maldives Space Research Organisation (MSRO)		NGO
	Program Coordinator	Nooraaje		NGO
	Assistant Meteorologist	Maldives Meteorological Service (MMS)		Pillar Chairs & Staff
	Director General Meteorology	Maldives Meteorological Service (MMS)		Pillar Chairs & Staff
	Director Meteorology	Maldives Meteorological Service (MMS)		Pillar Chairs & Staff
	Deputy Director General	Maldives Meteorological Service (MMS)		Pillar Chairs & Staff
	Seismologist	Maldives Meteorological Service (MMS)		Pillar Chairs & Staff
	Secretary General	Maldivian Red Crescent (MRC)		Pillar Chairs & Staff
	Assistant Director	Ministry of Environment, Climate Change and Technology		Pillar Chairs & Staff
	Minister State for Environment, Climate Change and Technology	Ministry of Environment, Climate Change and Technology		Pillar Chairs & Staff
	Senior Software Engineer	Ministry of Environment, Climate Change and Technology		Pillar Chairs & Staff
	Director Emergency Management (Technical)	National Disaster Management Authority (NDMA)		Pillar Chairs & Staff
	Director Policy and planning (Technical)	National Disaster Management Authority (NDMA)		Pillar Chairs & Staff
	Managing Director	Fresh Yield Private Ltd (Zuwaan Dhanduveriya)		Private Sector
	Risk & Compliance Analyst	Dhiraagu		Private Sector
	Manager Access Network Maintenance	Dhiraagu		Private Sector
	Climate and Biodiversity Coordinator	Group on Earth Observations (GEO)		UN
	Programme Officer- RCC	UNDP		UN
	Programme Associate for Resilience and Climate Change Unit	UNDP		UN
	Programme Management Officer	UNDRR		UN
	Programme Management Officer	UNDRR		UN
	Programme Advisor	UNEP		UN
	Programme Management Officer	UNESCO		UN
	Consultant	UNICEF		UN
	Social Policy Specialist	UNICEF		UN
	National Professional Officer – Communicable Diseases	WHO		UN
	National Consultant – Emergencies	WHO		UN
	Director, Disaster Risk Reduction	Disaster Risk Reduction and Public Se		UN
	Technical Coordinator (Services)	WMO		UN
	Director, Regional Office for Asia and the South-West Pacific	WMO		UN
	Project officer	Villa College		University
	High Commissioner of Pakistan	Embassy of the Islamic Republic of Pakistan		Diplomatic Missions/Dev. Coop

Maldives: Early Warnings for All (EW4All)

Annex 3: Status of EWS Pillars by National Stakeholders

Pillar 1: Disaster Risk Knowledge

https://docs.google.com/presentation/d/1kzBM70DC2aGLZjoxomEpR-U_AXYtOJFQ/edit?usp=sharing&ouid=102061639050508230752&rtpof=true&sd=true

Pillar 2: Observations and Forecasting

https://docs.google.com/presentation/d/1ny-UiV103iQTpl66-kDU1RJYks_wJbfm/edit?usp=sharing&ouid=102061639050508230752&rtpof=true&sd=true

Pillar 3: Warning Dissemination and Communication

<https://docs.google.com/presentation/d/108c6Q-ROZ2SZgnycKu9TLgDBc-A47LM/edit?usp=sharing&ouid=102061639050508230752&rtpof=true&sd=true>

Pillar 4: Preparedness and Response

<https://docs.google.com/presentation/d/1VWSu7U-1TbiJuu8tJjz2xShLTzq5D2Lc/edit?usp=sharing&ouid=102061639050508230752&rtpof=true&sd=true>

Annex 4: Preliminary Gap Analysis across four EWS Pillars

In the preparation for the development of the action plan for EW4ALL in the Maldives, a technical discussion was carried out to identify gaps on national and sub-national policy, technical, financial and other gaps in the Maldives across the four pillars of the EW4All Action Plan. While the complete list of the gaps and proposed list of activities based on the discussions is provided in Annex 2 (including an overview of roadmaps of the EW4A rollout in Maldives), the key gaps and needs are presented below.

Pillar 1: Disaster risk knowledge

- Comprehensive national climate and disaster risk in Maldives is not available; thus needs to be developed /updated.
- Update of the national disaster database, incorporating climate-related disasters, including its impacts
- Development of a standardized disaster risk assessment and methodology, which can be used at the national and sub-national levels.
- Develop and map specific information about high resolution bathymetry and coral reef status monitoring
- Extensive training on climate and disaster risk to NDMA and other relevant ministries/institutions at both national and sub-national levels.
- Mainstreaming of disaster risk reduction and incorporation of risk information into policies and plans
- Contribution to public awareness and education on hazards, with supporting material in Maldivian language, with a target on primary/secondary schools.
- Shoring up national loss and damage accounting, multi-hazard risk mapping, capacity building to address risk knowledge gaps relevant to EWS (including infrastructure vulnerability), and improving access and use of risk data for improve impact-based forecasting.
- Conducting sectoral risk assessments for highly climate-sensitive sectors, such as tourism, food security and telecommunications.
- Other areas cited by national stakeholders included: accelerating behavioural change through better monitoring about how advisories and early warning are currently crafted and how people respond (including gender analysis); economic impact forecasts for future events (especially for sectors); alignment of disaster risk reduction and environmental management; scaling up risk education, particularly in remote atolls; and, collection of exposure and vulnerability data, particularly targeted persons with disabilities and the elderly.

Pillar 2: Observations and Forecasting

- Achievement of GBON compliance, SOFF diagnostics already carried out by peer advisors,
- Expansion of coverage of weather stations (need for individual island coverage was mentioned, considerations for tourism sector private actors engagement encouraged),
- Training in operationalization and maintenance of weather stations (significant proportion of existing stations not operational)
- Increase radar coverage (currently one radar with maintenance issues)
- Rain cell technology to be investigated with ICT and the 2 mobile networks operators (estimation of rainfall intensity based on real-time mobile network operations data)
- Ocean and wave monitoring capacity to be developed,
- Capacity to manipulate big data and ingest into predictions,
- Improvement of the warning system, building on optimal access to and usage of available forecast data, resolving infrastructure issues with local computing facility (procurement issues preventing setting up the full suite of servers and software already acquired)
- Impact Based Forecasting development, in connection with Pilar 1 and its rollout in each island/atoll
- Common Alerting Protocol (CAP) implementation by MMS is sustained (using locally developed CAP editor)
- Significant training effort is needed as government budget allocation doesn't cover.

Maldives: Early Warnings for All (EW4All)

Pillar 3: Dissemination and communication

- Development of dissemination and communication plan/strategy for all islands and atoll, including satellite communication strategy
- Appointment of communication focal point for every island, which coordinates regular drills and simulations
- Adoption of one emergency number; and being integrated in the NDMO
- Adoption of CELL broadcast in the country noting that there are around ~700k + mobile phones, corresponding to an average of 1.4 per person in Maldives
- CAP usage by stakeholders is developed and allows consistent dissemination across all of society (TV Broadcasters, radios, digital signage systems, sirens and loudspeakers as appropriate, building on various stakeholder support, faith based and tourism sector mentioned)
- Establishment of a two-way feedback mechanism (e.g., through a digital platform; providing opportunities to utilise citizen science)
- Potential to use the National Digital Identity system (recently launched) to disseminate warnings.

Pillar 4: Preparedness and response

- Preparedness and response plans established by local community Councils to be maintained and updated regularly
- Ensuring that drills and simulations are conducted on each island and atoll
- Financial commitment to preparedness and response at both national and local council levels (including consideration to link social protection with EWS; risk transfer)
- Technical support and capacity development for Forecast-based Financing / Anticipatory Action
- Urban disaster risk management especially in densely populated communities in Male and other small islands' capitals.

Cross-Cutting

- Revitalization of disaster risk management committee (MMS part of it already), including M&E of the effectiveness of national MHEWS.
- Adoption of the Meteorological Act in consistency with other regulatory material
- Ensuring the continuous in-country technical coordination (by UNCT, NDMA and MMS) linked to regional coordination mechanisms.

Maldives: Early Warnings for All (EW4All)

Annex 4: Preliminary EWS Gap Analysis & Opportunities

Link to summary from National Pillar Leads of short- and medium-term opportunities in the Maldives:

<https://docs.google.com/presentation/d/1Dem-ic9oqnNG7q9hB5r1DbOdMcQz5s8/edit?usp=sharing&ouid=102061639050508230752&rtpof=true&sd=true>



Early Warnings for All (EW4All) in the Maldives: *Setting the National Priorities for GCF Project Interventions*

Report of Proceedings

5 July 2023
Male', Maldives



CONTENTS

- 1. Background**
- 2. Objectives**
- 3. Stakeholder Representation**
- 4. Barriers to Early Warning Systems**
- 5. Feedback on Proposed Interventions**
- 6. Community-Level Consultations**
- 7. Stakeholder Feedback**
- 8. Key Conclusions and Recommendations**

Annex 1: Agenda

Annex 2: List of Participants

Annex 3: Overview of Sub-Activities in the GCF *TRACT* Concept Note

Annex 4: Stakeholder Feedback

Annex 5: Photographs

Maldives: Early Warnings for All (EW4All)

1. Background

The Early Warnings for All (EW4All) initiative launched by the UN Secretary-General in March 2023 aims to ensure that every person on Earth is protected by early warning systems by 2027. Maldives has been selected among the initial group of countries to receive coordinated and targeted support towards EW4All.

Prior to the launch of the EW4All initiative, UN Environment Programme (UNEP) supported the Government of Maldives to develop a Green Climate Fund (GCF) concept note *“Toward Risk-Aware and Climate-resilient communities (TRACT) – Strengthening climate services and impact-based multi-hazard early warning in Maldives”*. In May 2023, the GCF Climate Investment Committee cleared the *TRACT* concept note for development into a full proposal.

The proposed *TRACT* project aims to ensure a holistic and integrated approach to strengthening climate information services and a people-centred Multi-Hazard Early Warning System (MHEWS) in the Maldives. It aims to concurrently address capacity development needs across the four key elements of early warning systems: i) Disaster Risk Knowledge; ii) Observations and Forecasting; iii) Dissemination and Communication; and iv) Preparedness and Response Capabilities. These are also the four pillars of the EW4All initiative, with which the project concept is strongly aligned.

As development of the full GCF project proposal commences, the timing is opportune to ensure that the *TRACT* proposal provides a clear investment pathway to address the key gaps, needs and priorities identified through the EW4All initiative.

The Republic of the Maldives convened the first National Consultation on EW4All from 4-5 July 2023. The event was led by the Ministry of Environment, Climate Change and Technology (MoECCT), hosted by H.E. Ms. [REDACTED] the Minister of Environment, Climate Change and Technology, and chaired by Ms. [REDACTED], State Minister, MoECCT, in cooperation with the United Nations Country Team (UNCT) led by the UN Resident Coordinator, Ms. [REDACTED].

The second day of the national consultation, which focused on setting the national priorities for GCF project interventions, was facilitated by UNEP as the Accredited Entity for the GCF *TRACT* proposal and an Implementing Partner of the EW4All initiative. Additional support was provided by UNDRR and WMO as the global UN lead agencies for EW4All, and UN ESCAP. The agenda is provided as **Annex 1**.

2. Objectives

Building on the outcomes of the launch of the National Consultation on EW4All in Maldives (4 July 2023), which included a preliminary gap analysis across the four Early Warning System (EWS) pillars and identified initial priorities in the short- and medium-term, the second day of the national consultation had the following objectives:

1. To validate the GCF project concept with key stakeholders in the Maldives.
2. To identify opportunities to address gaps, needs and priorities for MHEWS in the Maldives.
3. To elaborate concrete activities to be included in the GCF project proposal.
4. To share project information and gather feedback from all stakeholders to improve the proposal.

3. Stakeholder Representation

The second day of the National Consultation on EW4All in Maldives brought together a total of 57 participants representing a wide range of stakeholder groups across the EWS value chain. Included among the participating stakeholders were representatives of government ministries, associated organisations and regulatory bodies; local councils and women's development committees; EW4All national pillar leads (Maldives Meteorological Service – MMS, Maldivian Red Crescent – MRC, MoECCT, National Disaster Management Authority – NDMA); local NGOs; and private sector actors. Representatives of several UN resident agencies in Maldives were also present. A full list of participants is provided as **Annex 2**.

4. Barriers to Early Warning Systems

The following barriers to delivering reliable climate services and a people-centred, impact-based MHEWS in Maldives, identified during development of the GCF concept note, were presented to the participants for their feedback:

Maldives: Early Warnings for All (EW4All)

Barriers

1. Insufficient institutional, legislative and regulatory **frameworks and coordination** for effective delivery of climate services and MHEWS
2. Insufficient **technical capacity and high-quality data** for downscaled climate modelling and impact-based forecasting
3. Lack of **targeted communication** of climate risk information or early warnings tailored to specific user needs
4. Limited **awareness, knowledge and understanding** of climate change science and potential impacts
5. Limited **capacities** at national, sectoral and community levels to use climate services and early warning systems to reduce disaster risks

A representative of MMS suggested to expand *Barrier 2* to include reference to the insufficient high-quality and *real-time* data needed for climate modelling and impact-based forecasting. In response to *Barrier 5*, one participant argued that adequate capacities do exist, but they are not being “tapped into”.

Several additional barriers were highlighted, as follows:

- The geography of Maldives poses a major challenge in terms of ensuring the full reach of climate information and early warnings, as well as leading to higher costs (e.g., for travel and logistics) in comparison to other countries.
- Lack of meaningful engagement of all relevant stakeholders (notably women and youth), which in turn limits consideration of all end-user perspectives and awareness of the potential contributions of different population groups, is a systematic barrier to reaching the last mile.
- Limited human resource capacity (understaffing) within key stakeholder institutions and bureaucratic processes that reduce efficiency and effectiveness.
- Insufficient finance available for operation and maintenance of equipment required for hydrometeorological services and disaster risk management.

The issue of lack of meaningful stakeholder engagement prompted further discussion on what enabling factors should be implemented to address this barrier. Several suggestions were raised, including the need for dedicated local-level consultations (including with civil society organisations) held within the communities themselves; enhanced inter-generational dialogue (especially with young people); improved understanding of cultural sensitivities; and feedback mechanisms/loops with all atolls.

5. Feedback on Proposed Interventions

The main focus of the second day of the national consultation was to familiarise stakeholders with the proposed *TRACT* project interventions approved at concept note stage, and subsequently to obtain feedback to inform development of the full proposal. This was facilitated through a series of working sessions during which stakeholders participated in breakout discussions to consider the following questions:

1. How can the proposed interventions be improved?
2. What is already being done (that the *TRACT* project could build on)?
3. What additional interventions are needed?

A summary of the feedback received on the proposed interventions in the GCF concept note is provided in Tables 1-4. An overview of the proposed sub-activities presented to the stakeholders is provided as **Annex 3**.

Maldives: Early Warnings for All (EW4All)

Table 1. Stakeholder feedback on the interventions proposed under Output 1 in the GCF concept note.

Output 1 – Strengthened delivery model for climate services and a multi-hazard early warning system (MHEWS)	
Activity	Stakeholder Feedback
1.1 – Establish an institutional framework, financial framework and delivery model for climate services and disaster risk management	<ul style="list-style-type: none"> • Ensure that MMS has sufficient human resources to deliver the proposed interventions, particularly the National Framework for Climate Services (NFCS) • Identify convergence of the NFCS and/or regulatory Act with the Climate Emergency Act, the national climate change action plan, and the mandate outlined in the Disaster Management Act • Ensure that the NFCS is developed in alignment with the existing WMO guidelines • Consider enhancing the existing Disaster Management Committee (DMC) and/or combining existing committees, rather than establishing a new coordination mechanism (Sub-Activity 1.1.2) • Need to operationalise the DMC, which currently only exists in the law (under the Disaster Management Act) • Need for clarification on what constitutes climate services in order to identify what mechanism the DMC could combine with to cover climate services; additionally, need to clarify at what level the proposed inter-ministerial, multi-stakeholder coordination mechanism will function • Agree/confirm that there is a need for a unified platform with accountability and inclusion and for mechanism(s) for inter-agency coordination / collaboration between relevant stakeholders – this should go beyond government agencies to include NGOs and marginalised groups, which is needed to overcome systematic barriers to entry • Need to ensure a whole-of-society approach for meaningful engagement of multiple stakeholders, tapping into community knowledge, and harnessing the private sector; need to include a health sector focus in the NFCS and ensure that the Ministry of Health / Health Protection Agency is included in the coordination mechanism/committee • Need to recognise MMS as the main authoritative voice on weather warnings – a Meteorological Act has already been drafted but needs to be updated (e.g., to accommodate ideas for improvement reflected in the proposed activities) • Need to establish focal points for each island • Consider weaker language for the proposed regulatory Act (Sub-Activity 1.1.5) – e.g., “Incentivise financial sustainability” or “Enhance operationalisation of a legal framework” • Conduct further research into the need for a regulatory act for public-private partnerships specific to MMS • Need to increase private sector engagement/investment (e.g., with the tourism sector) – confirms the relevance/need for the proposed financial framework and business delivery model for climate services (Sub-Activity 1.1.6) • Consider including an intervention to support assessment of the socio-economic benefits of climate services and MHEWS
1.2 – Strengthen climate and disaster risk management, analysis and hazard mapping	<ul style="list-style-type: none"> • Need to establish a standardised single data entry system to collect data from islands/atolls, which caters to all government data requirements – noting that multiple data portals exist, and unification is needed to ensure effective time management • There is limited governmental human resource capacity at central and atoll level – thus there is a need for a standardised approach to (rapid) risk assessments for all sectors/stakeholders • Data collection is currently limited and occurs mainly between government entities; there is a need to consider inclusion of the private sector as well as incorporation of citizen science • Hazard mapping and vulnerability data collection (Sub-Activity 1.2.3) and Vulnerability and Capacity Assessments (VCAs – Sub-Activity 1.2.4) should be “led” by NDMA

Maldives: Early Warnings for All (EW4All)

	<p>rather than “in partnership with”; NDMA would implement the sub-activities in partnership with other actors as relevant</p> <ul style="list-style-type: none"> • Ensure that Atoll Councils are involved in hazard mapping, vulnerability data collection and VCAs • Utilise the EM-DAT database in hazard mapping and vulnerability data collection; existing work on GIS mapping should also be leveraged • Ensure that vulnerability data sharing and data management are also strengthened – need to cover the whole value chain, beyond just ‘data collection’ • VCAs have already been undertaken in some islands – consider revising the wording of Sub-Activity 1.2.4 to “continue/enhance” rather than “conduct” • Ensure an inclusive approach to VCAs including engagement of community members; VCAs are needed at the island level • Need to strengthen the existing national damage and loss database (DesInventar) rather than establishing a new platform (Sub-Activity 1.2.6) – potential to build on existing efforts supported by UNDRR
--	---

Table 2. Stakeholder feedback on the interventions proposed under Output 2 in the GCF concept note.

Output 2 – Strengthened observations, monitoring, modelling and impact-based forecasting	
Activity	Stakeholder Feedback
2.1 – Enhance equipment and technical capacity for observations and monitoring	<ul style="list-style-type: none"> • Consider expanding the scope of strengthening the hydrometeorological observation network (Sub-Activity 2.1.1) beyond Global Basic Observing Network (GBON) compliance as higher resolution coverage is needed • Need to include lightning detection equipment • Need to consider integration of frontier technologies and satellite data into climate and environmental services • Ensure that Internet of Things (IoT) interventions do not replace existing data, but instead provide opportunities additional data; IoT can complement MMS work with low-cost sensors • Include monitoring of sea-level rise and shoreline dynamics (Sub-Activity 2.1.6) • Need to ensure sustainability of the proposed expansions, improvements and enhancements
2.2 – Strengthen weather, water and climate modelling and impact-based forecasting	<ul style="list-style-type: none"> • Ensure that technical support and capacity building for climate projections is included under Sub-Activity 2.2.2 • Need for localised technical reports that downscale and contextualise information from the IPCC • Question the need for hydrological and hydraulic modelling in the context of Maldives – clarify whether it relates to coastal hydrodynamics or surface water modelling • Clarify that “fisheries forecasting” (Sub-Activity 2.2.2) refers to “forecasting of potential fishing zones” • Agree/confirm that there is a need for sector-specific advisories (Sub-Activity 2.2.4) as a ‘missing link’ to expand dissemination of information provided through the National Climate Outlook Forums (NCOFs) convened by MMS • Establish a national framework or guidelines on impact-based forecasting, which should link to the Forecast-based Action mechanism to be developed under Activity 4.2 • Need for better linkages between information management/forecasting systems and EWS • Current urban drainage system in Male’ is required to pump out excess rainwater, but the development trajectory is that the system is negatively impacting/diminishing mangrove and wetland ecosystems – there is a need to improve on nature-based solutions to support drainage (noting that this would be beyond the scope of the TRACT proposal)

Maldives: Early Warnings for All (EW4All)

Table 3. Stakeholder feedback on the interventions proposed under Output 3 in the GCF concept note.

Output 3 – Improved dissemination and communication of risk information and early warnings to the last mile	
Activity	Stakeholder Feedback
3.1 – Establish an impact-based multi-hazard early warning system	<ul style="list-style-type: none"> • Clarify the roles and responsibilities of island/atoll councils and volunteer mobilisation; explore opportunities for local councils to help with last-mile dissemination • Need to enhance inclusivity and accessibility in dissemination and communication processes; need for timely sharing of information • Language barriers currently exist – need to develop a strategy/mechanism on communication in local languages; consider needs of migrant communities (including illiterate migrants) • Need to increase involvement of NGOs in responding to emergency situations, including providing relevant training • Need for improved collaboration and integration of data between local councils and guesthouses/homestays – for example, introduce protocols for sharing information on arrivals • Proposed feedback mechanism (Sub-Activity 3.1.2) should be used to help evaluate accuracy of forecasts and identify instances of false alerts • Introduce cell broadcasting for warning dissemination; build on the JICA/GCF-supported digital terrestrial television broadcasting (DTTB) system – noting that it is currently limited to a small number of islands in two atolls • Need to enhance the multimedia role in disseminating alerts; explore opportunities to improve dissemination using mobile phones and social media platforms • Explore options to utilise additional resources/channels for dissemination of warnings (e.g., PA systems in mosques) – noting that a formalised agreement would be required • Need to scale up and integrate existing apps that store climate and user-related data (e.g., Moosun¹) • Explore opportunities for innovation using smart lampposts • Ensure that EWS don't leave behind the 6% of the population without mobile phones² and 14% without access to the Internet³; need to consider traditional warning dissemination channels (e.g., shell sirens, loudspeakers) • Council staff could be trained to undertake regular maintenance/functionality checks on EWS installed on islands (in the case of less complicated systems) • Partnerships with the media need to be enhanced so that the right information is provided at the right time; need for MoUs to promote partnerships for resource mobilisation • Ensure that references to “impact-based” and “multi-hazard” are included in the wording of the sub-activities • Revise “coordinated and integrated protocols” to “standard operating procedures” and include reference to “risk” as part of the communication strategies (Sub-Activity 3.1.1); revise “with capacity for encoding” to “using” (Sub-Activity 3.1.4)

¹ Moosun is the official mobile application of Maldives Meteorological Service

² As per Maldives' Household Income and Expenditures Survey 2019, 94% of the population owns a mobile phone

³ The World Bank Group, 2023. World Bank Open Data: Individuals using the Internet (% of population) – Maldives (2021)

Maldives: Early Warnings for All (EW4All)

Table 4. Stakeholder feedback on the interventions proposed under Output 4 in the GCF concept note.

Output 4 – Enhanced climate risk management capacity through the use of climate information and early warnings	
Activity	Stakeholder Feedback
4.1 – Enhance awareness and capacity to prepare for and respond to climate-related hazards and risks	<ul style="list-style-type: none"> • Need to ensure full meaningful engagement of communities, which is a key gap • Conduct a situational analysis to assess the current level of awareness – what are the existing knowledge, attitudes and positive practices that related to EWS • Conduct a baseline assessment to investigate the number of early warning messages received versus how many people receive early warnings and act on them • Awareness-raising should go beyond the ‘public’ to include institutions and policymakers • Empower local councils to facilitate awareness for all; each local council should have well-trained personnel to support public awareness-raising (including within resorts) • Establish a climate change-related educational institution – functions/activities would include conducting routine training sessions, providing video tutorials, and opportunities to become certified as a climate associate/helper • Build capacity of teachers in relation to climate change and disaster risk management • Implement tailored awareness programmes for different age groups and institutions to understand CAP – building on existing work by NDMA and the Ministry of Education • Need to establish a climate risk management task force in each populated island; similarly, need to establish an incident commander in every island • Need to have a dedicated hotline for NDMA with 24/7 operation • Many SOPs and plans relating to disaster risk management already exist – there is a need to align and synergise existing emergency management plans in different sectors (e.g., hospitals, airports, schools); ensure that stakeholders are aware of and familiar with existing plans/protocols, and to ensure that SOPs/plans are actually implemented • Need to ensure that preparedness and evacuation plans are accessible – consider potential to incorporate the new digital identity system • Community-Based Disaster Risk Reduction (CBDRR) is a very broad term – need for NDMA and MRC to confirm what aspects of CBDRR should be covered under the TRACT project; CBDRR activities should build on existing efforts already undertaken by NDMA and MRC; expand CBDRR activities to include island-based tourism sector • Need for resources for disaster preparedness plans at the island level; need for local councils and island communities to have equipment and expertise to use and operate equipment related to CBDRR • Need for active MRC representation on every island (noting that this is a very ambitious task) • Revise “in partnership with” to “led by” under Sub-Activity 4.1.4
4.2 – Enhance capacity for Forecast-based Action (FbA)	<ul style="list-style-type: none"> • Agree/confirm that Forecast-based Financing (or FbA) is a priority need • Agree/confirm that there is a need for FbA that utilises the impact-based forecasts supported under Output 2 • Capacity building for FbA should include all relevant institutions (not just MRC) • Prepare a list of potential private sector actors that might play a role in FbA / EWS; highlight tourism and fisheries as highly impacted sectors

6. Community-Level Consultations

A key need that was highlighted on several occasions during the national consultation was to have further consultations at the community level, which should ideally take place in the communities themselves. Whilst representatives of several local councils and women's development committees were engaged in the national consultation, it was acknowledged that further engagement would be needed to enhance the inclusiveness of the *TRACT* project design and ensure that the varying needs of other island communities are taken into account. Targeted engagement of traditionally marginalised groups such as women, youth and people with a disability was also recommended.

In addition, it was suggested to 'piggyback' on existing plans to visit islands with partners. A representative of MRC indicated the potential to leverage its existing community work, recognising that any stakeholder engagement to inform development of the *TRACT* proposal would have wider benefits for community-level interventions beyond the GCF project itself.

A significant opportunity for leverage identified during the workshop was to direct a portion of the anticipated Climate Risk and Early Warning Systems (CREWS) Accelerated Support Window funding for Maldives – which UNDRR is currently working with the NDMA to access – towards gender-responsive stakeholder consultations and development of the *TRACT* project gender assessment and/or gender action plan. Such efforts would contribute towards improved understanding of gender equality and social inclusion (GESI) issues in the context of EWS in Maldives, which would have high relevance and applicability to inform other EW4All efforts.

7. Stakeholder Feedback

At the close of the national consultation, participants were invited to complete a Stakeholder Feedback Form aimed at capturing their feedback and thoughts on the proceedings of the second day, the GCF *TRACT* proposal, and the project development process, as well as their expectations.

The expectations of many participants were centred around increasing awareness, learning and collaboration – both in the context of EW4All, as well as the GCF *TRACT* proposal more specifically. **Ninety percent of respondents reported that the consultation met or exceeded their expectations.**

Ninety percent of the respondents were satisfied with the proceedings of the second day of the national consultation, with **more than half of the respondents reporting the highest level of satisfaction**. UNEP has reached out to the two participants who expressed dissatisfaction with the consultation, to obtain further feedback and seek to address their concerns. A majority of respondents were satisfied with the opportunities given for feedback (90 percent) and opportunities to share information with other participants (86 percent), with more than 60 percent reporting the highest level of satisfaction.

In general, stakeholder feedback on how the second day of the national consultation could be improved was focused on two key areas: 1) stakeholder engagement; and 2) workshop agenda and duration. Regarding stakeholder engagement, several participants emphasised the need to **involve more local councils and atoll/island representatives**, as well as to **engage more civil society members** and ensure there is **accessibility for the often-marginalised groups** to participate in a meaningful way. In terms of workshop planning, several participants recommended to increase the duration of the workshop.

Almost all of the respondents reported an increase in awareness of the GCF *TRACT* proposal following the consultation. The participants that didn't report an increase were either already "extremely" or "very" aware of the proposal.

Overall, there was a **high level of positivity regarding the proposed project**, which was seen to have the potential to benefit the entire nation of Maldives. Several participants praised the **inclusivity** of the project and its **holistic approach**, which covered all areas of relevance for early warning systems in Maldives. Some participants highlighted specific technical aspects of the proposal that they considered valuable, including the enhanced equipment, integration of satellite data and new technologies, forecasting and anticipatory action, warning dissemination to local communities, and the emphasis on targeted capacity development.

Six participants responded with aspects of the proposed project that they disliked, half of whom raised the issue of the timeframe for project design and inception. The need for further stakeholder engagement was again emphasised.

Eighty-six percent of the respondents considered the proposed project to be "extremely" or "very" relevant to the work of their organisation.

In terms of strengthening the project development process, a recurrent concern that was raised was the need for further engagement of multiple stakeholders, particularly at the local level. Accordingly, many suggestions were centred around having **more focused discussions at local level** and **more consultations with local communities and local expertise** outside of government agencies. It was also recommended to include NGOs, WDCs and other civil society in the project development process, and to create an enabling environment for intergenerational dialogue. The involvement of policymakers, private sector and media representatives was also suggested.

Full details of the stakeholder feedback are provided as **Annex 5**.

8. Key Conclusions and Recommendations

The second day of the National Consultation on EW4All was convened with the active participation of a wide range of stakeholders spanning the entire EWS value chain in Maldives. Overall, the national stakeholders indicated endorsement of the sub-activities outlined in the GCF *TRACT* concept note, which addressed many of the key priorities identified during the first day of the national consultation.

No significant deviations from the approved GCF concept note were proposed. Recommended changes were predominantly focused on the phrasing of certain sub-activities, rather than being a major modification to the overall intervention. A number of recommendations were made regarding additional interventions/actions to be implemented under the project. Most of these are within the scope of a GCF EWS project and will be incorporated into the full funding proposal.

In addition, participants highlighted many relevant considerations to be reflected in the design and implementation of the full proposal. There were several recurrent recommendations/themes as follows:

- **Ensure meaningful stakeholder engagement** throughout the project cycle – from development to implementation to monitoring and evaluation – including taking actions to institute an enabling environment for engagement of traditionally marginalised and/or vulnerable population groups.
 - **Build on existing mechanisms/platforms** where possible, rather than creating new parallel structures. In particular, there is a need to operationalise the Disaster Management Committee (DMC).
 - **Establish unified and/or standardised approaches** where relevant, to ensure more effective use of limited (human and financial) resources. Specific examples include the establishment of a standardised single data entry system and methodology for risk assessments.
 - **Involve local councils and Women's Development Committees (WDCs)**, recognising the important role of decentralisation in enhancing local ownership and facilitating more meaningful participation of island communities, particularly in the context of Maldives. Moreover, ensure that local councils and WDCs have access to sufficient training and capacity building opportunities required to deliver on their responsibilities.
 - **Tourism and fisheries are the key sectors to be targeted** given that they are highly impacted by climate change. Amongst others, these sectors require tailored climate information, advisories and impact-based warnings.
 - **Improve awareness of climate-related hazards and disaster risk management** at all levels (including national institutions, policymakers, sectors and the general public).
 - **Leverage and build on existing efforts of national and international partners** (especially NDMA, MMS and the UNCT) to avoid duplication of efforts, recognising that a lot of relevant work has been undertaken, but requires support for updating, harmonisation and/or scale-up. Specific examples include existing hazard mapping and vulnerability and capacity assessments (VCAs), national disaster loss and damage database, and Community-Based Disaster Risk Reduction (CBDRR) activities.
-

Maldives: Early Warnings for All (EW4All)

Annex 1: Agenda for National Consultation on Early Warnings for All in Maldives – Day 2

Time	Agenda Item	Facilitators & Presenters
09:00 – 09:05	Opening by Moderator	Ms. [REDACTED], Programme Advisor, Early Warning and Assessment Division, UNEP
09:05 – 09:15	Opening Remarks	H.E. Ms. [REDACTED], State Minister, MoECCT H.E. Ms. [REDACTED], UN Resident Coordinator
09:15 – 09:25	Reflections on Day 1 <i>Overview of gaps, needs and priorities identified during Day 1 that could be addressed through the GCF proposal.</i>	Mr. [REDACTED], Programme Management Officer, UNDRR Mr. [REDACTED], Technical Coordinator, WMO
09:25 – 09:40	Introduction to the GCF Proposal <i>Overview of the approved GCF project concept, key milestones, and timeline for next steps.</i>	Ms. [REDACTED], Programme Advisor, Early Warning and Assessment Division, UNEP
09:40 – 10:00	Theory of Change (ToC) and Logical Framework <i>Presentation and discussion on the ToC in the concept note. Overview of the logframe development process and plan for working sessions.</i>	Ms. [REDACTED], Programme Advisor, Early Warning and Assessment Division, UNEP
<i>Break (15 mins)</i>		
10:15 – 11:15	Working Session – Output 1 “Strengthened delivery model for climate services and a multi-hazard early warning system” <i>Presentation on the project activities approved at concept note stage. Breakout discussions on gaps, needs and considerations to enhance the proposal. Feedback and open discussion.</i>	Ms. [REDACTED], Programme Advisor, Early Warning and Assessment Division, UNEP <i>Brainstorming / breakout discussions facilitated by EW4All National Pillar Leads and UN representatives</i>
11:15 – 12:15	Working Session – Output 4 “Enhanced climate risk management capacity through the use of climate information and early warnings” <i>Presentation on the project activities approved at concept note stage. Breakout discussions on gaps, needs and considerations to enhance the proposal. Feedback and open discussion.</i>	Ms. [REDACTED], Programme Advisor, Early Warning and Assessment Division, UNEP <i>Brainstorming / breakout discussions facilitated by EW4All National Pillar Leads and UN representatives</i>
<i>Prayer and Lunch Break (1 hour)</i>		
13:15 – 14:15	Working Session – Output 2 “Strengthened observations, monitoring, modelling and impact-based forecasting” <i>Presentation on the project activities approved at concept note stage. Breakout discussions on gaps, needs and considerations to enhance the proposal. Feedback and open discussion.</i>	Ms. [REDACTED], Programme Advisor, Early Warning and Assessment Division, UNEP <i>Brainstorming / breakout discussions facilitated by EW4All National Pillar Leads and UN representatives</i>
14:15 – 15:15	Working Session – Output 3 “Improved dissemination and communication of risk information and early warnings to the last mile” <i>Presentation on the project activities approved at concept note stage. Breakout discussions on gaps, needs and considerations to enhance the proposal. Feedback and open discussion.</i>	Ms. [REDACTED], Programme Advisor, Early Warning and Assessment Division, UNEP <i>Brainstorming / breakout discussions facilitated by EW4All National Pillar Leads and UN representatives</i>
<i>Break (15 mins)</i>		
15:30 – 15:45	Plenary and Next Steps	Ms. [REDACTED], Programme Advisor, Early Warning and Assessment Division, UNEP
15:45 – 15:55	Stakeholder Feedback	-
15:55 – 16:00	Closing Remarks	H.E. Ms. [REDACTED], State Minister, MoECCT
16:00	Evening Tea	-

Maldives: Early Warnings for All (EW4All)

Annex 2: List of Participants

No.	Name	Designation	Organisation
National Pillar Leads			
1		Minister of State for Environment, Climate Change and Technology	Ministry of Environment, Climate Change and Technology
2		Assistant Meteorologist	Maldives Meteorological Service (MMS)
3		Director General Meteorology	Maldives Meteorological Service (MMS)
4		Director Meteorology	Maldives Meteorological Service (MMS)
5		Deputy Director General	Maldives Meteorological Service (MMS)
6		Seismologist	Maldives Meteorological Service (MMS)
7		Secretary General	Maldivian Red Crescent (MRC)
8		Assistant Director	Ministry of Environment, Climate Change and Technology
9		Minister State for Environment, Climate Change and Technology	Ministry of Environment, Climate Change and Technology
10		Senior Software Engineer	Ministry of Environment, Climate Change and Technology
11		Director of Emergency Management	National Disaster Management Authority (NDMA)
12		Director of Policy and Planning	National Disaster Management Authority (NDMA)
13		Deputy Chief Executive	National Disaster Management Authority (NDMA)
Government Ministries / Associated Organisations / Regulatory Bodies			
14		Deputy Director	Communication Authority of Maldives (CAM)
15		Senior Planning Officer	Local Government Authority
16		Director	Local Government Authority
17		Sub-Inspector of Police	Maldives Police Service
18		Inspector of Police	Maldives Police Service
19		Inspector of Police	Maldives Police Service
20		Major	Ministry of Defence
21		Deputy Director General	Ministry of Education
22		Assistant Director	Ministry of Foreign Affairs
23		Director	Ministry of Foreign Affairs
24		Programme Officer	Ministry of Tourism
25		Education Development Professional	Ministry Of Education
26		Public Health Coordinator	Ministry Of Health
27		Project Coordinator	Ministry Of Health
Local Councils and Women's Development Committees (WDCs)			
28		Secretary General	B. Atoll Council
29		Councilor	Fuvahmulah City
30		Vice president of WDC	G.Dh Thinadhoo
31		Council Executive	G.Dh Thinadhoo
32		Council Member	Ha. Dhidhdhoo Council
33		Council Member	Ha. Dhidhdhoo Council
34		Council President	Ha Atoll Council
35		Council President	G.Dh Thinadhoo
NGOs			
36		Member	Blind Association
37		Research Scientist	Maldives Space Research Organisation (MSRO)
38		Director of Climate Resilience	Maldives Space Research Organisation (MSRO)
39		Director Legal Affairs	Maldives Association of Persons with Disabilities (MAPD)
40		Director of Outreach and Youth Engagement	Maldives Space Research Organisation (MSRO)

Maldives: Early Warnings for All (EW4All)

<i>Private Sector</i>			
41	██████████	Risk & Compliance Analyst	Dhiraagu
42	██████████	Manager Access Network Maintenance	Dhiraagu
43	██████████	Managing Director	Fresh Yield Private Ltd. (Zuvaan Dhanduveriya)
<i>UN Agencies</i>			
44	██████████	Resident Coordinator	UN Resident Coordinator Office (RCO)
45	██████████████████	Programme Associate for Resilience and Climate Change Unit	UNDP
46	██████████████████ ██████	Programme Management Officer	UNDRR
47	██████████████████	Programme Management Officer	UNDRR
48	██████████	Programme Advisor	UNEP
49	██████████████████	Programme Management Officer	UNESCAP
50	██████████	Consultant	UNICEF
51	██████████	Social Policy Specialist	UNICEF
52	██████████	National Professional Officer – Communicable Diseases	WHO
53	██████████	National Consultant – Emergencies	WHO
54	██████████	Director, Disaster Risk Reduction Disaster Risk Reduction and Public Services	WMO
55	██████████████████	Technical Coordinator (Services)	WMO
56	██████████████████	Director, Regional Office for Asia and the South-West Pacific	WMO
57	██████████	Climate and Biodiversity Coordinator	Group on Earth Observations (GEO)

OUTPUT 1 – STRENGTHENED DELIVERY MODEL FOR CLIMATE SERVICES AND A MULTI-HAZARD EARLY WARNING SYSTEM

Activity 1.1 – Establish an institutional framework, financial framework and delivery model for climate services and disaster risk management

- 1.1.1 Develop a National Framework for Climate Services to coordinate, facilitate and strengthen collaboration among national institutions for enhanced use of climate information and end-to-end climate services.
- 1.1.2 Establish an inter-ministerial, multi-stakeholder coordination mechanism for weather, water and climate services and disaster risk management.
- 1.1.3 Enhance the National Climate Outlook Forum (NCOF) as a platform for providing climate information to users at national and local levels. The NCOFs will downscale Regional Climate Outlook Forums and Monsoon Forums.
- 1.1.4 Strengthen strategic partnerships with regional and international institutions to enhance the ability of MMS to provide effective weather, water and climate services.
- 1.1.5 Develop a regulatory Act to provide an enabling government environment for encouraging private sector investment in weather and climate services. The Act would establish a legal status for MMS to formally engage in public-private partnerships.
- 1.1.6 Develop a financial framework and business delivery model for weather, water and climate services. This will include identifying opportunities for cost recovery, private sector investment, and enhanced resource mobilisation.

Activity 1.2 – Strengthen climate and disaster risk management, analysis and hazard mapping

- 1.2.1 Develop and implement a National Climate and Disaster Risk Information Strategy and Action Plan including processes to review and update data and standards for systematic collection, sharing and assessment of climate-related risk data and information.
- 1.2.2 Establish institutional arrangements for data governance and sharing among stakeholders with a particular focus on inter-sectoral data coordination relating to water, health, food security, disaster risk reduction.
- 1.2.3 Establish systematic GIS mapping and vulnerability data collection in partnership with NDMA and Maldives Land and Survey Authority.
- 1.2.4 Conduct Vulnerability and Capacity Assessments (VCAs) in partnership with NDMA and the Maldivian Red Crescent.
- 1.2.5 Strengthen local capacities to undertake climate-related risk assessments incorporating hazard, exposure and vulnerability indicators.
- 1.2.6 Establish a national disaster risk knowledge platform including cataloguing of hazardous weather, water and climate events in line with WMO-CHE guidelines.

OUTPUT 2 – STRENGTHENED OBSERVATIONS, MONITORING, MODELLING, AND IMPACT-BASED FORECASTING

Activity 2.1 – Enhance equipment and technical capacity for observations and monitoring

- 2.1.1 Strengthen Maldives' hydrometeorological observation and monitoring network in compliance with WMO Global Basic Observing Network (GBON) requirements – *To be implemented under SOFF*
- 2.1.2 Expand the radar observation network for severe weather and climate monitoring through new/upgraded infrastructure and technical training.
- 2.1.3 Improve observations in compliance with the WMO Integrated Global Observing System (WIGOS) regulatory and guidance material.
- 2.1.4 Enhance capacity for satellite remote sensing and monitoring to complement in-situ data collection with coverage of large areas.
- 2.1.5 Establish Internet of Things (IoT) for innovative weather, water and climate applications through deployment of low-cost, satellite-based weather and sea-level stations.
- 2.1.6 Enhance the ocean observation and monitoring system for sea surface temperature, chlorophyll content, current, wind speed and direction, wave and swell height, direction and period.
- 2.1.7 Implement a robust program of training and capacity building.

Maldives: Early Warnings for All (EW4All)

Activity 2.2 – Strengthen weather, water and climate modelling and impact-based forecasting

- 2.2.1 Establish e-infrastructure for integrated observing and high-resolution forecasting including upgrading Numerical Weather Prediction (NWP) and Limited Area Models (LAM) for higher resolution and data assimilation.
- 2.2.2 Enhance downscaled climate modelling, hydrological and hydraulic modelling, long-lead weather forecasting, and high-resolution ocean state and fisheries forecasting.
- 2.2.3 Co-produce sector-specific impact-based forecasting and decision support for public and private sectors – e.g., food security, disaster risk reduction, energy, health, water, and tourism.
- 2.2.4 Develop sector-specific advisories for dissemination of downscaled climate outlook, marine and long-lead weather forecasts to inform science-based planning in climate-sensitive sectors.
- 2.2.5 Introduce climate analytics to support the development of Green Finance products by the SME Development Finance Corporation (SDFC).

OUTPUT 3 – IMPROVED DISSEMINATION AND COMMUNICATION OF RISK INFORMATION AND EARLY WARNINGS TO THE LAST MILE

Activity 3.1 – Establish an impact-based multi-hazard early warning system

- 3.1.1 Develop and implement coordinated and integrated protocols to communicate timely risk information and warnings, including development of socially inclusive and gender-responsive communication strategies, emergency communication protocols, and networks to disseminate warnings.
- 3.1.2 Establish a multi-stakeholder monitoring and reporting feedback mechanism to verify that information has been received.
- 3.1.3 Strengthen communication systems to reach the last mile through equipment maintenance/upgrade, backup systems, and wireless communications.
- 3.1.4 Establish a national multi-hazard alert system displaying real-time multi-hazard information with exposure and vulnerability, with capacity for encoding in Common Alerting Protocol (CAP) format.
- 3.1.5 Co-develop and produce last-mile early warning products and services integrating traditional and local knowledge to generate warnings that are actionable and effective for vulnerable population groups.
- 3.1.6 Establish partnerships with the private sector to expand information dissemination channels and feedback mechanisms.

OUTPUT 4 – ENHANCED CLIMATE RISK MANAGEMENT CAPACITY THROUGH THE USE OF CLIMATE INFORMATION AND EARLY WARNINGS

Activity 4.1 – Enhance awareness and capacity to prepare for and respond to climate-related hazards and risks

- 4.1.1 Increase public awareness and education on climate-related hazards, vulnerabilities, exposure and risks.
- 4.1.2 Strengthen national, sub-national and local capacity to leverage climate and disaster risk information and impact-based multi-hazard early warnings for risk-informed, evidence-based decision-making and planning.
- 4.1.3 Enhance capacity of the private sector to manage climate-related risks, including potential for business innovation triggered by a changing climate.
- 4.1.4 Strengthen community-based disaster risk reduction (CBDRR) in partnership with NDMA and the Maldivian Red Crescent.

Activity 4.2 – Establish capacity for Forecast-based Action (FbA)

- 4.2.1 Develop a Roadmap for Forecast-based Action – an innovative mechanism whereby resources for pre-planned anticipatory actions are released when an impact-based forecasting trigger is reached.
- 4.2.2 Build capacity for FbA to ensure that the Maldivian Red Crescent has the knowledge and skills to develop and implement Early Action Protocols.
- 4.2.3 Initiate Early Action Protocol (EAP) co-development through an inclusive and participatory stakeholder engagement process.

Maldives: Early Warnings for All (EW4All)

Annex 4: Stakeholder Feedback

Stakeholder Information

A total of 29 participants completed the Stakeholder Feedback Forms. The respondents comprised 9 females (31%) and 14 males (48%), with 6 participants (21%) choosing to remain anonymous. Of the 21 participants who provided their age group, one was in the 18-24 category, 12 participants (57%) were in the 25-40 category, and 8 participants (38%) were in the 41-64 category.

The respondents represented all five categories of participants to the national consultation: EW4All National Pillar Leads (22%); Government ministries, associated organisations and regulatory bodies (35%); Local councils and women's development committees (WDCs) (17%); NGOs (13%); Private sector (9%); and UN agencies (4%).

Expectations of Participants

1. What were your expectations prior to the National Consultation on EW4All – Day 2?

The expectations of many participants were centred around increasing awareness, learning and collaboration. In this regard, specific expectations included “to be informed and contribute in a meaningful way”, “wide consultative feedback from stakeholders”, “learn more about current situation” and “mechanisms to facilitate more collaboration among multisectoral agencies”. Identification of key actors that should be obligated to “develop and enhance the early warning capacity of Maldives” and “engagement with relevant national agencies” were also highlighted.

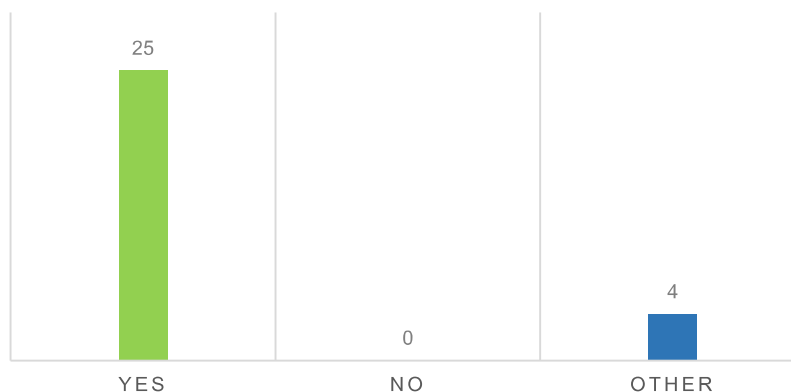
Several participants highlighted their expectation to increase their knowledge and understanding of EW4All, particularly in the context of Maldives, and know “what is being achieved” and “the plan to make it happen”. Other participants expected to “see a Roadmap” and “get to know [the] financial facility under EW4All”.

The expectations of other participants focused directly on learning about, discussing and providing feedback on the proposed GCF TRACT project. Participants also mentioned the expectation to “further develop” and “update key points in the GCF proposal to align with EW4All”, as well as “mapping of gaps and areas of improvement for proposed interventions under the project”. One participant specifically mentioned their expectation to “assess the ways in which health components are reflected in the project outcomes and activities”. Another highlighted the expectation to “get a better understanding of the project and impact at local levels”.

Other expectations reported by participants included “support from international community on building resilient communities” and the overarching goal to “decrease the number of deaths resulting from [hazardous] weather, water or climate events”.

2. Did the consultation meet your expectations?

The consultation met or exceeded the expectations of 90 percent of the respondents.



3. If the consultation did not meet your expectations, please explain why.

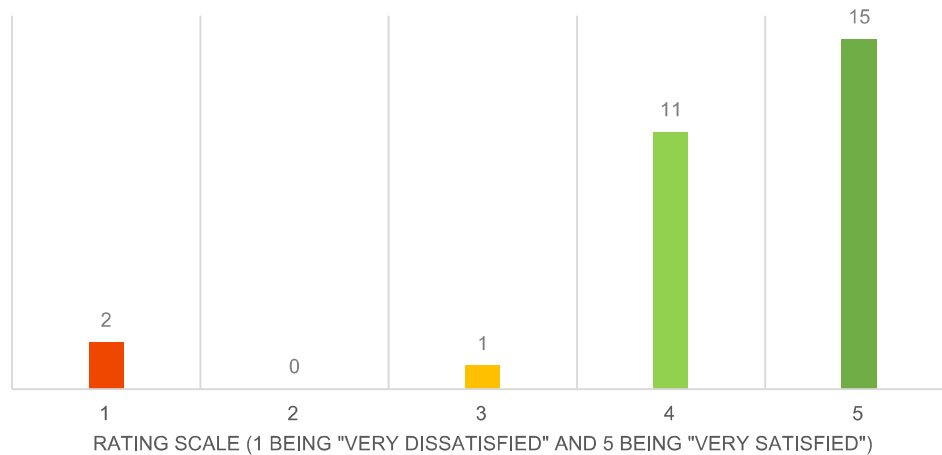
Of the participants that responded “Other”: 1) One participant stated that the consultation “exceeded expectations”; 2) Two participants commented “Yes and no”. In the case of one participant, this was due to the expectation that the consultation would focus on what needed to be done over the next 18 months to two years, which wasn't met. However, the same participant acknowledged that the GCF proposal includes “strategic actions to be taken to develop and enhance early warning capacity in Maldives”, which was viewed positively. The other participant noted that “the limited number of key stakeholders involved or able to participate was disheartening”; 3) The remaining participant that responded “Other” did not provide further comment.

Maldives: Early Warnings for All (EW4All)

National Consultation on EW4All (Day 2)

4. Overall, how satisfied are you with the National Consultation on EW4All – Day 2?

Ninety percent of the respondents were satisfied with the proceedings of the second day of the national consultation, with more than half of the respondents reporting the highest level of satisfaction. UNEP has reached out to the two participants who expressed dissatisfaction with the consultation to obtain further feedback and seek to address their concerns.

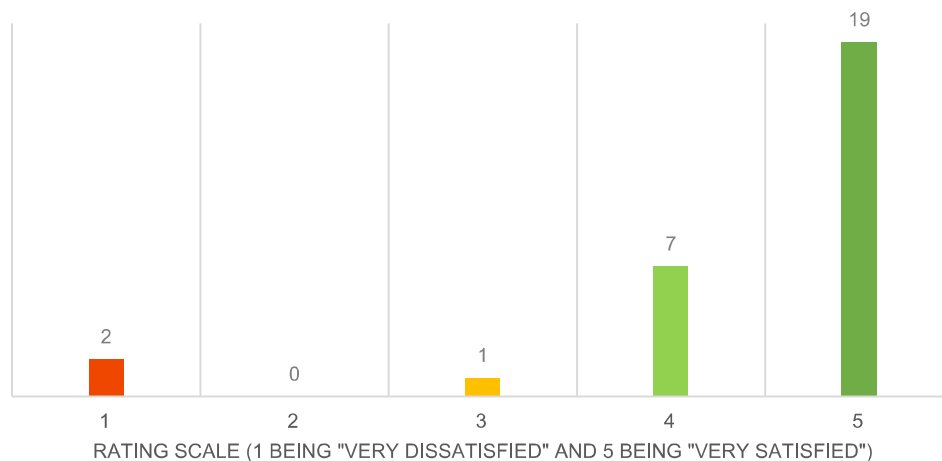


Several participants provided further comments in response to the question as follows:

- It was organised well with Day 2 being framed in a good way to get the most out of stakeholders.
- The opportunity to exchange knowledge and learn from others was heartwarming.
- The consultations will strengthen the national level disaster risk reduction governance and contribute to work on EW4All.
- Need to bring all existing functional bodies into action mode.
- Need more time to discuss the matter.
- Worries of political implications of potentially stepping on toes.

5. Overall, how satisfied are you with the opportunities given for feedback?

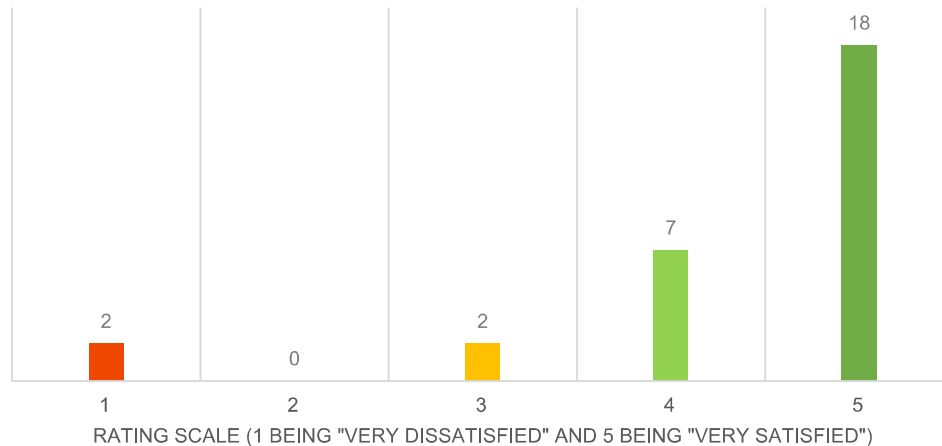
Ninety percent of the respondents were satisfied with the opportunities given for feedback, with two-thirds of respondents reporting the highest level of satisfaction.



Maldives: Early Warnings for All (EW4All)

6. Overall, how satisfied are you with the opportunities to share information with other participants?

The majority of respondents (86%) were satisfied with the opportunities to share information with other participants, with 62 percent reporting the highest level of satisfaction. One participant commented that more authorities could have been invited to take part.



7. How could the National Consultation on EW4All – Day 2 be improved?

In general, stakeholder feedback on how the second day of the national consultation could be improved was focused on two key areas: 1) engagement of additional stakeholders; and 2) workshop agenda and duration. In addition, a few participants re-confirmed their satisfaction with the second day of the national consultation, stating that it was "well done" and "well delivered".

Regarding stakeholder engagement, several participants emphasised the need to involve more local councils and atoll/island representations. Recommendations were also made to "ensure there is accessibility for the often-marginalised groups such as young persons to contribute in a meaningful way" and "engage more civil society in consultative meetings (local NGOs and WDCs, etc.)". Other participants mentioned the need for "coordination and collaboration from all relevant authorities" and to "increase involvement of policymakers in the consultation forum". Additionally, it was suggested to "meet up with individual stakeholders" and have "more engagement with concerned stakeholders".

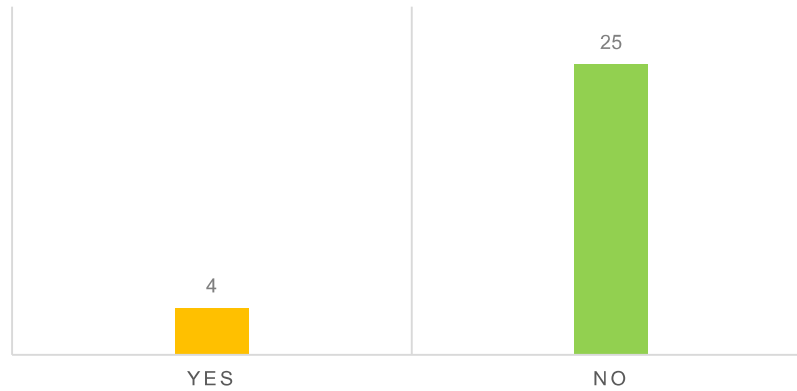
In terms of the workshop planning, several participants recommended to increase the duration of the workshop, noting that "contents were too large to cover in one day" and "could add two more days to the programme". Recommendations to "make more breaks" and "more time allocation for groups" were also highlighted. A few participants focused their recommendations on the facilitation, including for a "lead facilitator to be placed in each group" and to "provide more resource persons", as well as to "ensure even distribution of the representation of authority rather than random distribution".

Finally, two participants advised that they would have preferred to have had more information beforehand. Specifically, recommendations were made regarding "sharing of relevant documents (PowerPoint, concept note, etc.) prior to the workshop to allow for greater participation" and "inform about current acts and plans in place prior to the workshop... [so that] attendees could have a look and review [the] current situation and identify drawbacks and upgrades if needed".

8. Do you have any questions that were not answered?

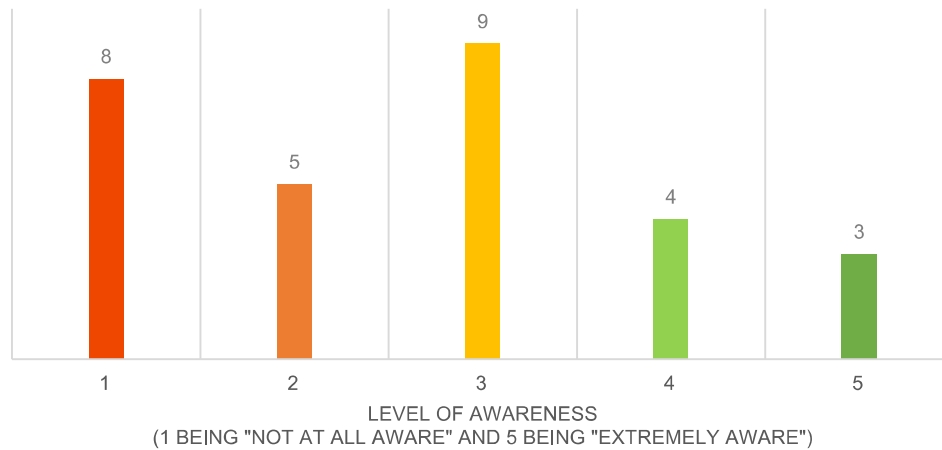
The majority of participants (86%) reported having no outstanding questions following the consultation. UNEP has reached out to or engaged with the four participants that had further questions.

Maldives: Early Warnings for All (EW4All)

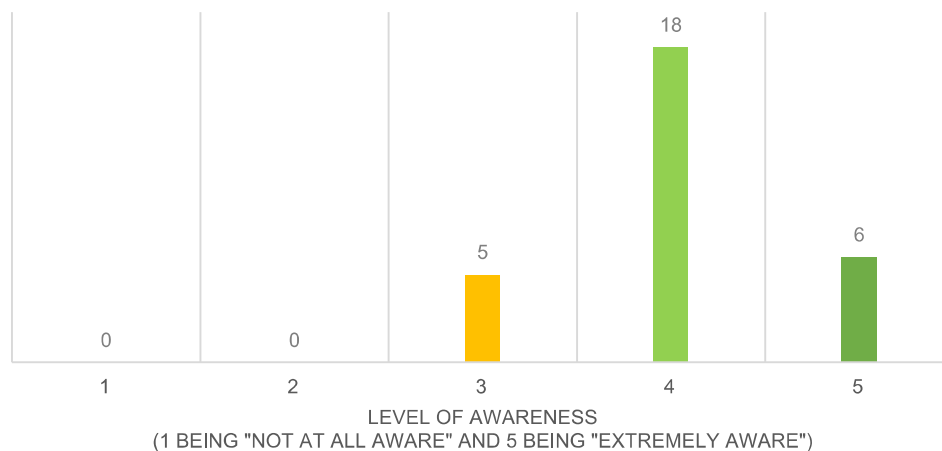


GCF TRACT Proposal

9. Please rate your level of awareness of the GCF TRACT proposal before the consultation.



10. Please rate your level of awareness of the GCF TRACT proposal after the consultation.



Almost all of the respondents reported an increase in awareness of the GCF TRACT proposal following the consultation workshop. The participants that didn't report an increase were either already "extremely" or "very" aware of the proposal.

11. What do you like about the proposed project?

Maldives: Early Warnings for All (EW4All)

Overall, there was a high level of positivity regarding the proposed GCF TRACT project, which was seen as “very important” and “much needed”, with potential to benefit the entire nation of Maldives. A few respondents highlighted the complementarity with EW4All and the “opportunity to keep Maldives ahead in the EW4All initiative”.

Several participants praised the inclusivity of the proposed project, which has “room for meaningful collaborations” and “will bring key stakeholders together”. The “very holistic approach” was also valued, noting that the project “covers all areas that needed to be covered” and will create “awareness among all stakeholders and community to act after early warnings for any disaster”. In terms of ownership, it was noted that “because this project has co-financing from the government, their commitment will be higher”.

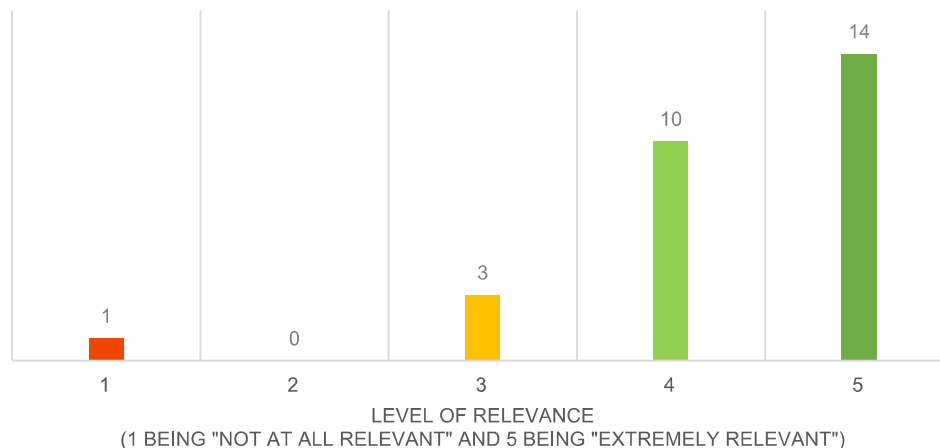
From a technical perspective, participants valued the “aspects of forecasting and mitigation and anticipatory preparations”, the proposed support to “build confidence in doing observation with enhanced equipment and effective dissemination of warning messages to local communities”, what is “covered in terms of enhancing Internet of Things (IoT) and human capacity”, and “the inclusion of specific wordings that aim to identify and fix the areas which institutions lack capacity in”. Another participant praised “the integration of satellite data [and] new technologies”, noting that these “could be expanded”.

12. Is there anything that you do not like about the proposed project?

Six participants responded with aspects of the proposed project that they disliked, half of whom raised the issue of the timeframe and speed for project design and inception. Two participants mentioned the need for further stakeholder engagement: 1) “Requires broader set of stakeholders than just MoE / NDMA / MMS. Must include other line ministries and local communities”; and 2) “More emphasis is needed to highlight a whole-of-society approach where everyone has the opportunity to contribute in a meaningful way”. Finally, one participant mentioned regret that “there is no support for specific health EWARS” (Early Warning, Alert and Response System).

13. Please rate the relevance of the proposed project to your organisation’s work.

Most of the respondents (86%) considered the proposed project to be “very” or “extremely” relevant to the work of their organisation. Just one respondent considered it to be “not at all relevant”. One participant commented on the complementary with most upcoming projects and initiatives. Several participants expressed their desire to identify and discuss further on “where best we can contribute” and “how we can complement to ensure the successful implementation of the project”.



14. Do you have any suggestions to strengthen the project development process? If yes, please describe.

A recurrent concern that was raised throughout the national consultation was the need for further engagement of multiple stakeholders, particularly at the local level. Accordingly, many suggestions to strengthen the project development process were centred around “more focused discussions at local level and with local actors such as local councils” and “more consultations with local communities and local expertise outside of government agencies”, including having “smaller stakeholder consultations”. It was also recommended to “include NGOs, WDCs and other civil society in [the] project development process” and “create an enabling environment for intergenerational dialogue”. The need to “involve policymakers”, “empower private sector” and “include media representation while developing the project” were also highlighted. Whilst “more involvement of stakeholders” was suggested, it was also advised to “have a good active core working group”.

Aside from stakeholder engagement, some suggestions were received to “enhance [the] timeline” and “increase funding”, as well as “to be more realistic and practical” in terms of logistics. In terms of the project design, it was recommended to “tap into existing innovative projects that are at pre-operational phase”, which echoed feedback received during the consultation on the need to identify and leverage existing efforts, where possible.

Maldives: Early Warnings for All (EW4All)

Annex 5: Photographs



Photo: UN Maldives



Photo: UN Maldives

Maldives: Early Warnings for All (EW4All)



Photo: UN Maldives



Photo: [REDACTED] / UNEP

Maldives: Early Warnings for All (EW4All)



Photo: UN Maldives



Photo: [REDACTED] / UNEP



National Validation Workshop for the Green Climate Fund (GCF) Funding Proposal: *"Toward Risk-Aware and Climate-resilient communities (TRACT) – Strengthening Climate Services and Impact-Based Multi-Hazard Early Warning in Maldives"*

Report of Proceedings

2 October 2024

Male', Maldives



Contents

1. BACKGROUND	3
2. OBJECTIVES	3
3. STAKEHOLDER REPRESENTATION	3
4. FEEDBACK ON THE THEORY OF CHANGE.....	3
5. FEEDBACK ON PROJECT ACTIVITIES.....	3
6. KEY FINDINGS AND RECOMMENDATIONS.....	9
APPENDIX 1: AGENDA	11
APPENDIX 2: LIST OF PARTICIPANTS.....	13
APPENDIX 3: STAKEHOLDER FEEDBACK.....	16
APPENDIX 4: PHOTOGRAPHS.....	23

1. Background

The Green Climate Fund (GCF) funding proposal titled “Toward Risk-Aware and Climate-resilient communities (TRACT) – Strengthening climate services and impact-based multi-hazard early warning in Maldives” has been developed by the United Nations Environment Programme (UNEP) at the request of the Government of Maldives.

The proposed TRACT project aims to ensure a holistic and integrated approach to strengthening climate information services and a people-centred Multi-Hazard Early Warning System (MHEWS) in the Maldives. It aims to concurrently address capacity development needs across the four key elements of early warning systems: i) Disaster Risk Knowledge; ii) Observations and Forecasting; iii) Dissemination and Communication; and iv) Preparedness and Response Capabilities. These are also the four pillars of the EW4All initiative, with which the project concept is strongly aligned.

The Government of Maldives convened a National Validation Workshop for the TRACT funding proposal on 2 October 2024. The event was led by the Ministry of Climate Change, Environment and Energy (MCCEE) as the GCF National Designated Authority (NDA), with high-level representation from the Maldives’ Special Envoy for Climate Change, Mr. [REDACTED], Minister of State for Climate Change, Environment and Energy, Mr. [REDACTED], and the UN Resident Coordinator *a.i.* for Maldives, Mr. [REDACTED].

The agenda is provided as Appendix 1.

2. Objectives

The National Validation Workshop had the following objectives:

- *Technical Validation:* Confirm that the project is technically sound and aligns with the needs and priorities of the people of Maldives.
- *Stakeholder Buy-In:* Ensure full understanding and agreement with the proposed project, including roles and responsibilities during the implementation phase.
- *Sustainability:* Validate that the project will bring long-term, sustainable benefits to the whole of society in Maldives.

3. Stakeholder Representation

The National Validation Workshop brought together around 40 participants representing a diverse range of stakeholder groups with an interest in and/or influence on the proposed TRACT project. Participants included representatives of the Early Warnings for All (EW4All) national pillar leads: National Disaster Management Authority (NDMA), Maldives Meteorological Service (MMS), Communications Authority of Maldives (CAM), Maldivian Red Crescent (MRC);¹ national and local government representatives, including from the health, fisheries, tourism, finance, maritime safety and defence sectors; local NGOs; and private sector actors. A full list of participants is provided as Appendix 2.

4. Feedback on the Theory of Change

The Theory of Change for the project was presented. Participants were given the opportunity to provide feedback and advise if there were additional barriers to delivering people-centred MHEWS that had not been identified. The Theory of Change was accepted by the participants and there were no concerns raised regarding the barriers presented.

5. Feedback on Project Activities

The proposed project activities were presented through a series of sessions, each focusing on one of the four project outputs. Each session commenced with a presentation by the relevant EW4All national pillar lead, which outlined their role in MHEWS in Maldives and the key gaps that the project would address. Each initial presentation was followed by a presentation by UNEP on the proposed project interventions. In turn, this was followed by an open discussion, which provided a space for all stakeholders to share their feedback and reflections on the given proposal. Stakeholders were given the opportunity to communicate in English or Dhivehi, according to their individual preference. Tables 1-4 outline the feedback received for each of the proposed sub-activities.

¹ Apologies were received from representatives of the National Centre for Information Technology (NCIT) as the Pillar 3 Co-Lead due to an engagement at the President’s Office.

Table 1. Stakeholder feedback on Output 1 of the Funding Proposal²

Output 1 – Strengthened delivery model and risk knowledge for climate services and a multi-hazard early warning system	
Activity 1.1 – Establish an institutional framework, legislation and delivery model for climate services and disaster risk management	
Sub-Activity	Stakeholder Feedback
1.1.1 – Develop a National Framework for Climate Services (NFCS)	<ul style="list-style-type: none"> Concerns were raised about the number of frameworks proposed for development, which could lead to duplication of efforts. [UNEP clarified that the proposed structure of Activity 1.1 was aligned with those of approved GCF EWS initiatives. The various frameworks would be developed in a complementary and synergistic manner.]
1.1.2 – Enhance inter-ministerial and multi-stakeholder coordination for climate services and disaster risk management	<ul style="list-style-type: none"> Concerns were raised about the establishment of a new coordination mechanism as another “system within systems” should be avoided. [UNEP clarified that the GCF project would not develop a completely new coordination mechanism, rather it would build on and operationalise existing relevant mechanism(s) – for example, the Disaster Management Steering Committee exists in theory but has not yet been operationalised.]
1.1.3 – Enhance the National Climate Outlook / Monsoon Forum	<ul style="list-style-type: none"> It was recognised that the GCF project would help to expand the number and range of stakeholders engaged through the forums.
1.1.4 – Strengthen strategic partnerships and knowledge brokering through regional and international fora	<ul style="list-style-type: none"> South-South knowledge sharing is valuable, but there is also a need to learn from initiatives outside of the Global South. Consider expanding beyond South-South cooperation so that Maldives can benefit from other areas. Concern was raised regarding the potential high costs of hosting the South Asian Climate Outlook Forum (SASCOF) and how it may divert funds from other important project activities. [UNEP clarified that the GCF funds would not be used for regular hosting costs, which are ordinarily budgeted for by RIMES. The GCF funds would be used for additional capacity building required for MMS to host the SASCOF and to finance participation of a greater number of Maldivian stakeholders than would usually be invited to attend.] The clarification was accepted; however, it was recommended to explore options beyond the SASCOF and ensure more general framing of the sub-activity to emphasise capacity building and allow flexibility for MMS to attend other meetings as deemed relevant.
1.1.5 – Establish a legal framework for enabling private sector investment in weather and climate services	<ul style="list-style-type: none"> [See feedback on Sub-Activity 1.1.1]
1.1.6 – Develop a financial framework and business delivery model for weather and climate services	<ul style="list-style-type: none"> It was recommended to ensure alignment with the Systematic Observations Financing Facility (SOFF) activities on cost recovery [UNEP confirmed that the GCF project interventions had been developed to align with the SOFF project in Maldives, noting that these projects are managed by the same unit within UNEP.]
1.1.7 – Establish National Guidelines for Gender-Responsive Disaster Management	<ul style="list-style-type: none"> Questions were raised about whether a gender responsiveness plan had already developed and if there was a need to develop a new one. [NDMA and UNEP clarified that internal guidelines for NDMA had been developed but not operationalised, and that limited guidance is available to entities beyond NDMA. The aim of the TRACT project would be to develop guidelines that would be applicable across agencies to ensure a coordinated approach, building on the NDMA internal guidelines where relevant.] Ensure that resources are available to pilot implementation of the guidelines. Concern was raised about potential repetition with NFCS. [UNEP clarified the scope of the NFCS and noted that no duplication was anticipated.]
Activity 1.2 – Strengthen climate and disaster risk data management, analysis and hazard mapping	
Sub-Activity	Stakeholder Feedback

² Sub-activities numbered and titled as of 2 October 2024

1.2.1 – Develop and implement a National Climate and Disaster Risk Information Strategy	<ul style="list-style-type: none"> No specific questions or comments were raised regarding the National Climate and Disaster Risk Information Strategy. Nevertheless, the importance of climate data and information sharing was emphasised by the Special Envoy for Climate Change in his opening remarks.
1.2.2 – Establish institutional arrangements for data governance and sharing	<ul style="list-style-type: none"> It was recommended that NCIT be involved as a key stakeholder given that it holds the mandate for data management. [UNEP confirmed that the funding proposal would be updated accordingly to reflect this.] Clarification was requested on the type of data to be collected for the EWS to function effectively (only meteorological data or otherwise?). [UNEP clarified that the project has a strong emphasis on meteorological data; however, climate-related sectoral data would also be collected. Data needs would be assessed as part of the development of the National Climate and Disaster Risk Information Strategy and methodology for multi-hazard risk assessments.]
1.2.3 – Establish standardised multi-hazard risk assessments and mapping	<ul style="list-style-type: none"> MCCEE noted that conducting risk assessments and mapping of every inhabited island is overly ambitious. A suggestion was made to revise this to “selected islands”, with the target islands to be finalised later. It was noted that Digital Elevation Models (DEM) are very costly. Given that the change in elevation in Maldives is very small, there is a need to contextualise the requirements for DEM – i.e., need for high resolution DEM in millimetre scale. Based on this, UNEP was advised to check with RIMES to ensure that the funding allocation is sufficient. It was recommended to consider implementation of LiDAR area mapping. [UNEP confirmed that the project budget included funding to support LiDAR data collection.] Clarification was requested regarding the type of maps to be developed and the hazards to be targeted by the EWS. [UNEP provided the requested clarification, noting the climate change focus and emphasis on a multi-hazard approach.] A representative from the Ministry of Fisheries and Ocean Resources (MFOR) highlighted that it can be difficult to isolate climate from other risks (e.g., extraction and over-fishing in the case of the fisheries sector) and questioned how the project would address this. [UNEP confirmed that the risk assessments will consider non-climate drivers and that this would be reflected in the funding proposal.]
1.2.4 – Strengthen local capacities to undertake climate-related risk assessments	<ul style="list-style-type: none"> In the presentation by NDMA, it was noted that a project proposal for a risk index for critical infrastructure was under development. NDMA also noted that studies often stay as reports and are not applied and used to support Island Disaster Management Plans (IDMPs). It was therefore advised that capacity building is needed in this area. MCCEE recommended ensuring that tools and guidelines are aligned with existing legal frameworks (e.g., Climate Emergency Act and Disaster Management Act) to ensure legal weight for their implementation. It was advised that financial resources may need to be dispersed to partner community-based organisations for the piloting of risk assessment activities.
1.2.5 – Conduct Enhanced Vulnerability and Capacity Assessments (EVCAs)	<ul style="list-style-type: none"> Concerns were raised about the capacity of MRC to cover all target islands; thus, there is a need to ensure that MRC has adequate resources for this intervention. In the presentation by MRC, the role of NDMA in EVCAs and IDMPs was highlighted. Collaboration with NDMA would therefore be important to implement this sub-activity effectively.
1.2.6 – Establish a national disaster risk knowledge platform	<ul style="list-style-type: none"> In the presentation by NDMA, it was noted that the disaster risk knowledge platform would build on the Asia-Pacific Risk and Resilience Portal developed by UNESCAP.
1.2.7 – Establish a tracking system for hazardous events and losses and damages	<ul style="list-style-type: none"> In the presentation by NDMA, it was noted that tracking hazardous events, losses and impact data is one of the biggest issues. The current process is very manual. An online platform is under development, but capacity building is needed. [UNEP clarified that the GCF project would build on the tracking system/platform under development, which is being supported by UNDRR through a CREWS Accelerated Support Window project.] It was recommended to ensure that sufficient resources are available for building staff capacity for the tracking system, including training staff to undertake data collection in the longer term.

Table 2. Stakeholder feedback on Output 2 of the Funding Proposal³

Output 2 – Strengthened observations, monitoring, modelling and impact-based forecasting	
Activity 2.1 – Enhance equipment and technical capacity for observations and monitoring	
Sub-Activity	Stakeholder Feedback
2.1.1 – Strengthen the hydrometeorological observation network	<ul style="list-style-type: none"> It was noted that lots of failures had been experienced with automatic weather stations (AWSs) supplied by previous projects. For equipment procured under the GCF project, sufficient funds need to be allocated for repairing/replacing equipment. [UNEP confirmed that budgeting for equipment operation and maintenance (O&M) would be validated with MMS in a bilateral meeting.]
2.1.2 – Enhance the ocean observation and monitoring system	<ul style="list-style-type: none"> In the presentation by MMS, the urgent need for ocean buoys was emphasised. A participant asked about the sustainability of the project. The participant used the example of ocean buoys, which would depreciate after being procured and installed. The participant asked what was being planned to ensure that the equipment was maintained and whether there was a strategy to replace the equipment if it was no longer effective. It was recommended to ensure that sufficient budget is allocated for capacity building to complement equipment deployment. [UNEP confirmed that the project had allocated resources for capacity building and that national stakeholders would be involved and trained in equipment deployment. The project would also support the development of an O&M plan for the observation network.]
2.1.3 – Build capacity for Internet of Things (IoT) and wireless technologies	<ul style="list-style-type: none"> No specific comments or questions were raised regarding this sub-activity.
Activity 2.2 – Strengthen weather, climate and ocean modelling and impact-based forecasting	
Sub-Activity	Stakeholder Feedback
2.2.1 – Establish e-infrastructure for integrated observing and high-resolution forecasting	<ul style="list-style-type: none"> No specific comments or questions were raised regarding this sub-activity.
2.2.2 – Undertake climate data rescue and digitisation	<ul style="list-style-type: none"> The NDA emphasised the importance of data and archiving. The potential to engage the National Archives of Maldives was highlighted, which would enable data to also be used by researchers. MMS advised that while some digitisation activities had been undertaken, the GCF project would allow for comprehensive data rescue – including (potentially) for data stored internationally, such as in the UK Met Office.
2.2.3 – Enhance downscaled weather, climate and ocean modelling and high-resolution forecasting	<ul style="list-style-type: none"> In the presentation by MMS, the importance of high-resolution numerical weather prediction (NWP) for informed impact-based forecasts was emphasised. It was recommended to ensure that funds are available to support field data validation and feedback.
2.2.4 – Develop and sustain core competencies for user-centred climate services	<ul style="list-style-type: none"> The need to strengthen capacities to ensure competence and build expertise in climate services was recognised.
2.2.5 – Co-produce sector-specific impact-based forecasts and decision support for public and private sectors	<ul style="list-style-type: none"> A representative from MFOR advised that the fisheries sector is working on productivity forecasts, which the Ministry would be willing to share.
2.2.6 – Develop sector-specific advisories for climate- and risk-informed decision making	<ul style="list-style-type: none"> No specific comments or questions were raised regarding this sub-activity.

³ Sub-activities numbered and titled as of 2 October 2024

2.2.7 – Introduce climate analytics to support the development of Green Finance products	<ul style="list-style-type: none"> It was recommended to check with the SME Development Finance Corporation (SDFC) to ensure that this sub-activity did not duplicate existing efforts. [UNEP confirmed that SDFC had been engaged in the development of this intervention and no duplication of efforts was expected.]⁴ The potential to consider insurance needs was highlighted, noting the current difficulties in obtaining suitable data. The NDA confirmed interest in the provision of support for climate analytics for the insurance sector under the GCF project.
2.2.8 – Enhance knowledge retention through hands-on learning and refresher training	<ul style="list-style-type: none"> The need to go beyond hands-on training and consider long-term capacity building was highlighted. This could be achieved through engagement of regional centres.

Table 3. Stakeholder feedback on Output 3 of the Funding Proposal⁵

Output 3 – Improved dissemination and communication of risk information and early warnings to the last mile	
Activity 3.1 – Establish a people-centred, impact-based multi-hazard early warning system	
Sub-Activity	Stakeholder Feedback
3.1.1 – Develop and implement Standard Operating Procedures (SOPs) for multi-hazard early warnings	<ul style="list-style-type: none"> It was recognised that there is a need for SOP documents as well as piloting of their implementation, which will enable the “translation of SOPs into action”.
3.1.2 – Co-develop a socially inclusive and gender-responsive risk communication strategy	<ul style="list-style-type: none"> It was recommended to ensure that this intervention does not duplicate Sub-Activity 1.1.7.
3.1.3 – Establish a national Multi-Hazard Alert System	<ul style="list-style-type: none"> It was recommended to further discuss the requirements for the alert system with MMS.
3.1.4 – Establish cell broadcasting for public warning	<ul style="list-style-type: none"> A representative of CAM suggested that cell broadcasting may not be the best strategy for the EWS, and that Terrestrial Trunked Radio (TETRA) may be more suitable. The NDA advised that further technical discussion was needed with CAM regarding TETRA. [UNEP held a follow-up meeting with the NDA and CAM on 3 October 2024.] It was recognised that funding was insufficient for full TETRA implementation and therefore a pilot was suggested under the GCF project. Assistance was requested for proposal development to scale up the TETRA pilot. The NDA requested support from the International Telecommunication Union (ITU) for this intervention, which was agreed with by CAM. MMS expressed support for the TETRA pilot but noted the need to consider and research social issues. For example, it was noted that for some communities, concerns about radiation were leading to a lack of community buy-in. It was noted that frequent siren noises may also lead to lower community buy-in. As an example, a participant noted that if siren alarms disrupt prayer call times, then members of the community may grow tired on the alarms. A recommendation was made to mute the alarms during prayer call times. In response to this, a participant from CAM suggested that a test run in 5-6 islands could be conducted to assess how communities respond to siren alarms going off.
3.1.5 – Strengthen two-way feedback and evaluation mechanisms	<ul style="list-style-type: none"> No specific comments or questions were raised regarding this sub-activity.
3.1.6 – Strengthen communication systems to reach the last mile	<ul style="list-style-type: none"> [See overall feedback from the Blind and Visually Impaired Society of Maldives (BVISM) under Section 6.]
3.1.7 – Develop a multilingual glossary on	<ul style="list-style-type: none"> It was recommended that the glossary be produced in various formats (not just as a booklet) and that technology should be used to increase accessibility.

⁴ Due to a scheduling conflict, the representative from SDFC was unable to attend this session.

⁵ Sub-activities numbered and titled as of 2 October 2024

climate change, early warning systems, and disaster risk reduction	
3.1.8 – Establish partnerships with the private sector to expand information dissemination and feedback mechanisms	<ul style="list-style-type: none"> No specific comments or questions were raised regarding this sub-activity.

Table 4. Stakeholder feedback on Output 4 of the Funding Proposal⁶

Output 4 – Enhanced climate risk management capacity using climate information and early warnings	
Activity 4.1 – Enhance awareness and capacity to prepare for and respond to climate-related hazards and risks	
Sub-Activity	Stakeholder Feedback
4.1.1 – Increase public awareness and education on climate-related hazards, vulnerabilities, exposure, and risks	<ul style="list-style-type: none"> In the presentation by MRC, participants were informed that the proposed resource hub would serve to enhance access and train educators to use early warning resources and tools. MRC noted that significant multi-sector engagement in the awareness campaign would be needed to ensure actual nationwide rollout.
4.1.2 – Mainstream Protection, Gender and Inclusion (PGI) into disaster preparedness	<ul style="list-style-type: none"> No specific comments or questions were raised regarding this sub-activity.
4.1.3 – Scale up the Y-Adapt youth engagement curriculum	<ul style="list-style-type: none"> In the presentation by MRC, participants were informed that Y-Adapt is an activity-based approach for learning, which is currently in the pilot stage. Y-Adapt will include a focus on climate literacy.
4.1.4 – Strengthen national, sub-national and local capacity to use climate and disaster risk information and impact-based early warnings	<ul style="list-style-type: none"> MNDF asked whether specific capacity building programs for MNDF personnel were incorporated within the project activities. As an example, the MNDF participant noted that capacity building on best practices related to flood management could be useful. [UNEP advised that the project would engage MNDF personnel as part of its capacity building activities on disaster risk management.]
4.1.5 – Enhance capacity of the private sector to manage climate-related risks	<ul style="list-style-type: none"> In the presentation by MRC, participants were informed that MRC has already started engagement and capacity building of SMEs in relation to climate risk management and contingency planning. The aim would be to scale this up through the GCF project.
4.1.6 – Scale up Community-Based Disaster Risk Management (CBDRM)	<ul style="list-style-type: none"> In the presentation by MRC, participants were informed that the GCF project will scale up efforts of the USAID-funded “Strengthening Preparedness and Resilience through Inclusive Community Governance in the Maldives (SPRING) project, which has supported CBDRM in seven islands.
4.1.7 – Develop Standard Operating Procedures (SOPs) for the prevention and management of gender-based violence (GBV) in disaster situations	<ul style="list-style-type: none"> No specific comments or questions were raised regarding this sub-activity.
Activity 4.2 – Establish capacity for Forecast-based Action (FbA) and Anticipatory Action (AA)	
Sub-Activity	Stakeholder Feedback
4.2.1 – Develop a Roadmap for FbA/AA	<ul style="list-style-type: none"> A participant noted that while AA is important, these messages need to be clear so that they are interpretable and actionable. The participant explained that while it is useful to be warned about impending disasters, it is also important that the person being warned knows that actions to take so that they can avoid the disaster and
4.2.2 – Build capacity for FbA/AA	

⁶ Sub-activities numbered and titled as of 2 October 2024

4.2.3 – Co-develop impact-based forecast triggers for Fb/AA

reach safety. AA messages and interventions should therefore be very specific and tailored to the local context.

4.2.4 – Initiate Early Action Protocol (EAP) development

6. Key Findings and Recommendations

Overall, the National Validation Workshop demonstrated that there is strong buy-in for the TRACT proposal, with the depth of discussion testament to the effective involvement of national stakeholders throughout the project development process. In addition to the specific feedback in relation to individual sub-activities presented in Section 5 above, several recurring themes and priorities as well as general recommendations critical to the project's success were noted. These are detailed below.

i. National Ownership

Stakeholders emphasised the importance of ensuring national ownership in project implementation. This would ensure that capacity is built within the country and strengthen the project's sustainability. Specifically, there was a preference to avoid reliance on international technical partners for activities that can be conducted by national actors. It was expressed that regional or international actors should only be involved where national capacity is lacking. Over-reliance on international partners may hinder the project's sustainability. There was wide acknowledgement that international technical partners will play an important role in sharing their expertise, but where national stakeholders can lead, there was a strong demand for them to do so.

ii. Capacity Building

Building and strengthening local capacities was expressed as a cross-cutting priority across multiple project interventions. In particular, it was noted that the development of strategies, guidelines and standard operating procedures should be complemented by implementation pilots and associated trainings. In his opening remarks, the Special Envoy for Climate Change emphasised the need for targeted training to maximise the use of investments in infrastructure. Moreover, it was recommended that capacity building should go beyond short-term activities to create long-term institutional resilience.

iii. Data Needs

The importance of data collection, management and sharing was expressed multiple times during the workshop. The Special Envoy for Climate Change expressed the need for inter-agency collaboration to enhance data governance. It was made clear that data-related capacity building is a priority for Maldives.

iv. Legal Backing

It was noted that frameworks, guidelines and strategies without legal backing are not as effective as those with legal backing. It was therefore recommended to ensure that all policies or procedures developed are aligned with the relevant legislation (e.g., Climate Emergency Act, Disaster Management Act) to ensure legal weight for their implementation.

v. Involvement of Local Councils

It was expressed that local councils should be key partners in the project governance arrangements and implementation of activities, particularly those at the community level, due to their strong connections with local communities. Engagement of local councils in supporting community-based activities will be critical for the project's success.

vi. Inclusiveness for People with Disabilities (PWDs)

Several salient points were raised regarding inclusivity of the EWS for PWDs. The representative from BVISM noted that the currently utilised format of MMS alerts is inaccessible to some vulnerable groups in Maldives. While text-to-speech functionality allows text to be read off a screen, this is not always possible when alerts are disseminated in image format. The visually impaired would benefit from warning messages being disseminated in an audio format. Additionally, it was noted that PWDs in Maldives use smartphones adapted to their communication needs and that social media is widely used. This should be reflected in the EWS communication strategy.

vii. Communication Technologies

Detailed discussion was held regarding which technology (TETRA, cell broadcasting, or location-based SMS) would be most suitable for deployment as part of the EWS in Maldives. It was noted that there is existing TETRA infrastructure in place that could be built upon. However, it was also recognised that the GCF project would provide insufficient funding to fully implement a TETRA-based EWS and therefore a pilot initiative would be required. Concerns were also raised about lack of community buy-in for TETRA-linked sirens due to noise and/or radiation issues. It was agreed that the proposed technologies should be evaluated for technical feasibility in the Maldivian context and that further consultation involving CAM, MCCEE and MMS would be required.

viii. Climate Risk Insurance

The need for climate risk insurance / parametric insurance to support adaptation of the tourism sector (particularly small-scale tourism) as well as other climate-sensitive sectors was recognised. It was agreed that UNEP would consult with RIMES on how this might be supported under the GCF project.

7. Feedback on the National Validation Workshop

At the close of the National Validation Workshop, participants were invited to complete an online survey aimed at capturing their feedback on the TRACT funding proposal and the workshop proceedings, as well as their overall understanding and satisfaction.

All respondents (100%) reported full satisfaction with the workshop, with a majority (90.1%) either agreeing or strongly agreeing that the TRACT proposal effectively addressed the EWS needs of the Maldives.

In terms of general understanding of the project, 100% of respondents expressed confidence in their understanding of the project's overarching goal, proposed outcomes, activities, and their own roles and responsibilities. This was key to confirming objective number 2.

There was one outlier who expressed concerns about the long-term sustainability of the project, strongly disagreeing with the sustainability of its measures. Additional comments provided by this participant suggested that sustainability concerns relate to the choice of entity selected to lead on certain activities.

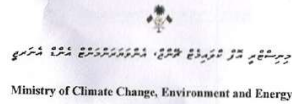
Overall, there was a strong buy-in and positivity observed regarding the proposed project, which 100% of survey respondents acknowledged as addressing the key climate-related hazards affecting the Maldives. The validation workshop was successful in achieving its objectives and generated a positive appreciation for the TRACT proposal.

Full details of the stakeholder feedback are provided in Appendix 3.

Appendix 1: Agenda

Wednesday 2nd October 2024			
Time	Duration	Agenda item	Facilitators and Presenters
8.40 – 9.00	20 mins	Registration	
9.00 – 9.10	10 mins	Recitation of the Holy Quran	MMS
9.10 – 9.15	5 mins	Opening by Moderator	MCCEE
9.15 – 9.30	15 mins	Opening Remarks	Special Envoy for Climate Change Minister of State for Climate Change, Environment and Energy UN Resident Coordinator <i>a.i.</i>
Group Photo and Break (15 mins)			
9.45 – 10.05	20 mins	Introduction and Overview of the TRACT Funding Proposal	MCCEE / UNEP
10.05 – 10.20	15 mins	Theory of Change (ToC)	UNEP
10.20 – 11:20	1 hour	Output Session – Output 1 “Strengthened delivery model for climate services and a multi-hazard early warning system”	NDMA / UNEP
Break (5 mins)			
11.25 – 12.25	1 hour	Output Session – Output 2 “Strengthened observations, monitoring, modelling and impact-based forecasting”	MMS / UNEP
Prayer and Lunch Break (1 hour)			
13:25 – 14.25	1 hour	Output Session – Output 3 “Improved dissemination and communication of risk information and early warnings to the last mile”	CAM / UNEP
14.25 – 15.25	1 hour	Output Session – Output 4 “Enhanced climate risk management capacity using climate information and early warnings”	MRC / UNEP
Break (15 mins)			
15.40 – 15.55	15 mins	Plenary and Final Validation	UNEP
15:55 – 16:00	5 mins	Next Steps	UNEP
16:00 – 16:10	10 mins	Stakeholder Feedback	-
16:10 – 16:15	5 mins	Closing Remarks	MCCEE

Appendix 2: List of Participants



Date: 2nd October 2024		Time: 0900 hrs	Venue: Champa Central Hotel	Section: Climate Change Department		
GCF TRACT: National Validation Workshop						
	Name	Designation	Organization	Email Address	Contact Number	Signature
1	***The content of this document has been redacted in accordance with the GCF Information Disclosure Policy, as names and contact details are confidential under the disclosure policy of the Accredited Entity.***	Director	MCCEE	***The content of this document has been redacted in accordance with the GCF Information Disclosure Policy, as names and contact details are confidential under the disclosure policy of the Accredited Entity.***		
2		Environment Analyst	MCCEE			
3		Adaptation Analyst	Commonwealth			
4		Director General	MMS			
5		Minister of State	MCCEE/MMS			
6		Deputy Director General	MMS			
7		Director	MMS			
8		Seismologist	MMS			
9		Meteorologist	MMS			
10		Assistant Director	MMS			
11		Special Envoy for Climate Change	PO			
12		Assistant Director	PO			
13			UNEP			
14			UNEP			
15		Deputy Chief Executive	National Disaster Management Authority			

16 ***The content of this
17 document has been
18 redacted in accordance
19 with the GCF Information
20 Disclosure Policy, as
21 names and contact details
22 are confidential under the
23 disclosure policy of the
24 Accredited Entity.***

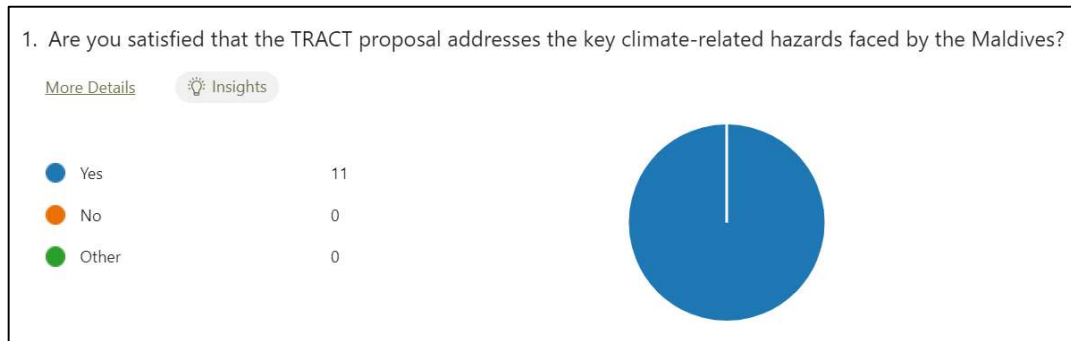
Policy Manager	National Disaster Management Authority
Senior Social Protection Officer	Ministry of Social and Family Development
Fisheries Officer	Ministry of Fisheries and Ocean Resources
Director	Ministry of Health
Deputy Director General	Ministry of Education
Head of Contingency Planning and Operational Support Unit	Maldives Police Service
Deputy Manager	SFDC
UN Resident Coordinator	UN Resident Coordinator's Office
	UN Resident Coordinator's Office
	UN Resident Coordinator's Office
Meteorological Technician	Hanimaadhoo Observatory
Meteorologist	Gan Observatory
Meteorological Technician	Kaadedhoo Observatory
Meteorological Technician	Kahdhoo Observatory
Mayor	Fuvahmulah City Council
Research coordinator for Earth Observation	Maldives Space Research Organisation
WS Consultant	WS
Small Island Research Group	Consultant
Deputy Maritime Safety Security Squadron	Coast Guard MNDP
Squadron commander MSSS	MNDF CG
EX-Director	Ministry of Lifeline
	BLIND & VISUAL IMPAIRED SOCIETY OF MALDIVES
Manager - Programmes & services	Maldivian Red Crescent

The content of this document has been redacted in accordance with the GCF Information Disclosure Policy, as names and contact details are confidential under the disclosure policy of the Accredited Entity.

39		Deputy Dirctr	CAM			
40						
41						
42						
43						
44						
45						
46						
47						
48						
49						
50						

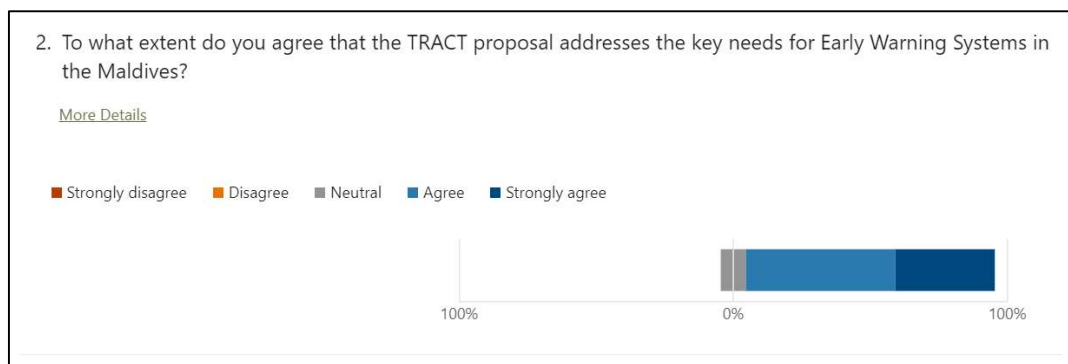
Appendix 3: Stakeholder Feedback

Question 1.



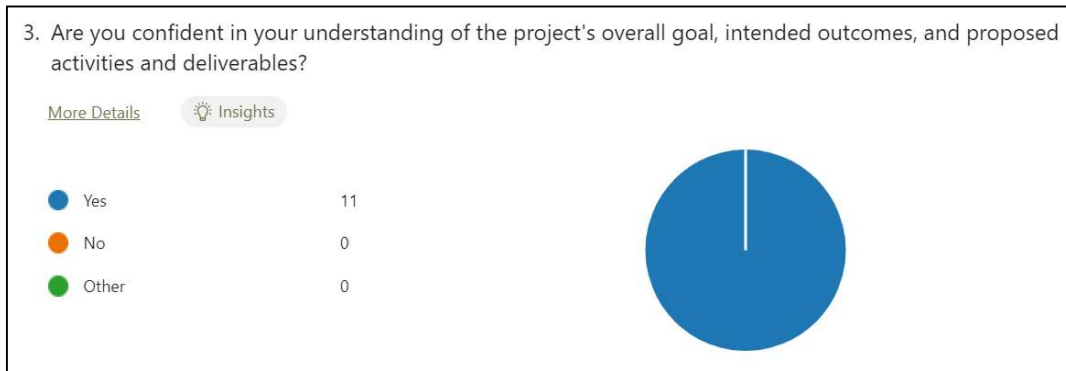
The results from Question 1 confirms the main objective of the National Validation Workshop, 100% of the responses indicate they are satisfied that the TRACT proposal addressed the key climate-related hazards faced by Maldives.

Question 2.



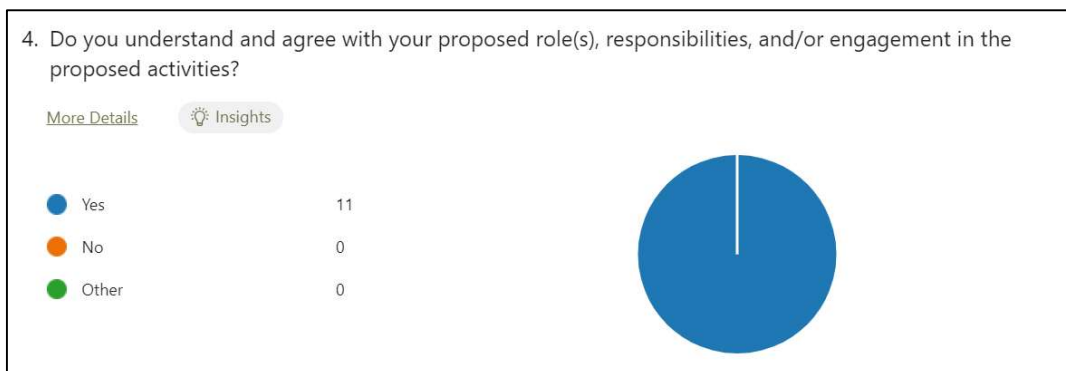
The results from Question 2 illustrates how most participants either Agree or Strongly Agree that the TRACT proposal addresses the key needs for EWS in Maldives.

Question 3.



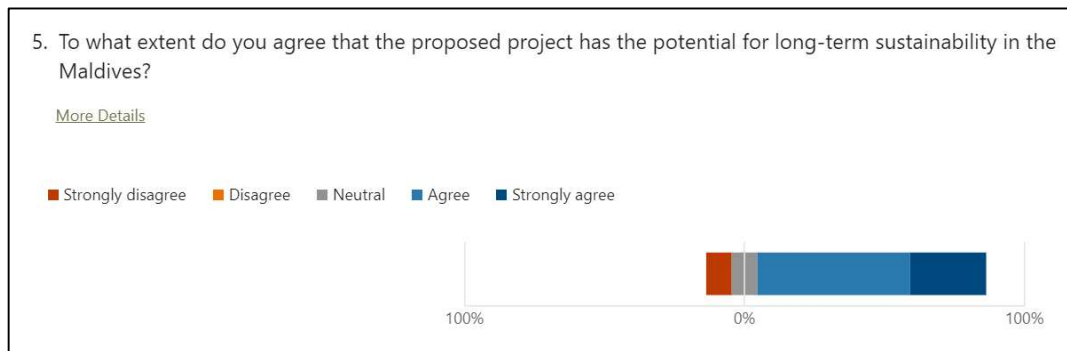
The results from Question 3 confirms one of the main objectives of the National Validation Workshop, 100% of the responses indicate they are confident in their understanding of the projects overall goal, intended outcomes, and proposed activities and deliverables.

Question 4.



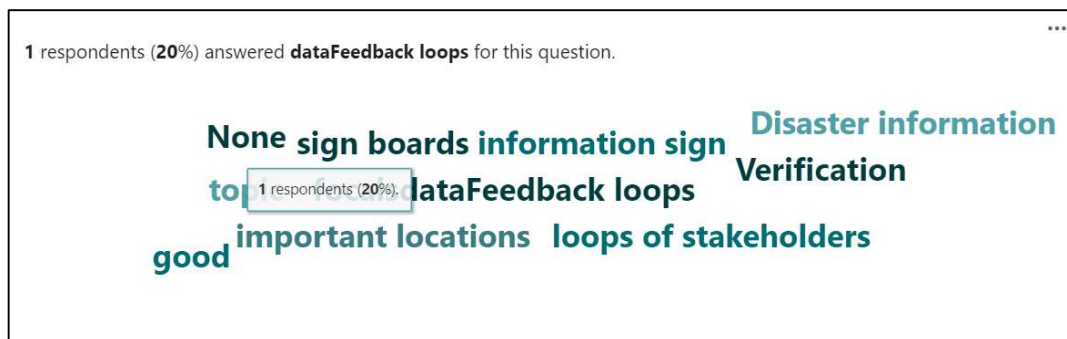
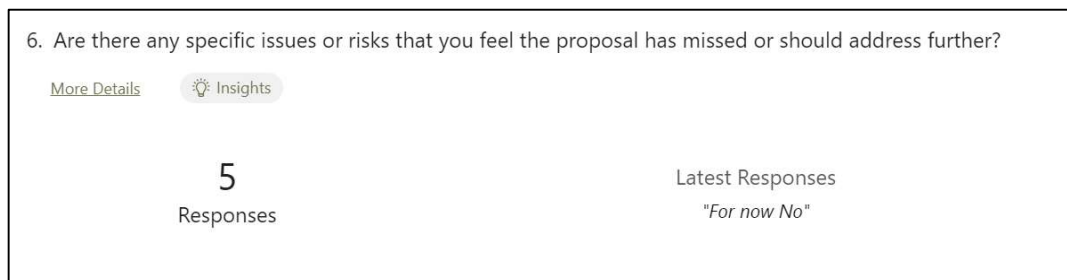
100% of responders understand and agree with their proposed roles, responsibilities, and/or engagement in the proposed activates. This is a critical objective of the workshop.

Question 5.



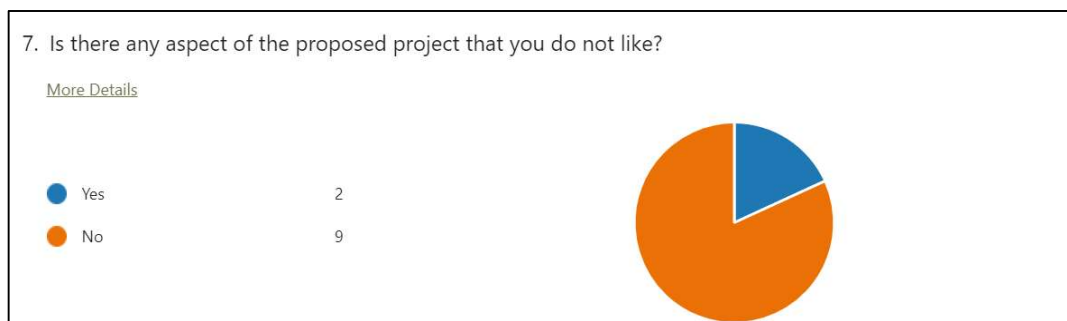
The majority of respondents Agree that the proposed project has the potential for long-term sustainability in the Maldives. The second majority Strongly Agrees, while there is a single responder Strongly Disagrees, however no further comment was given as to why.

Question 6.



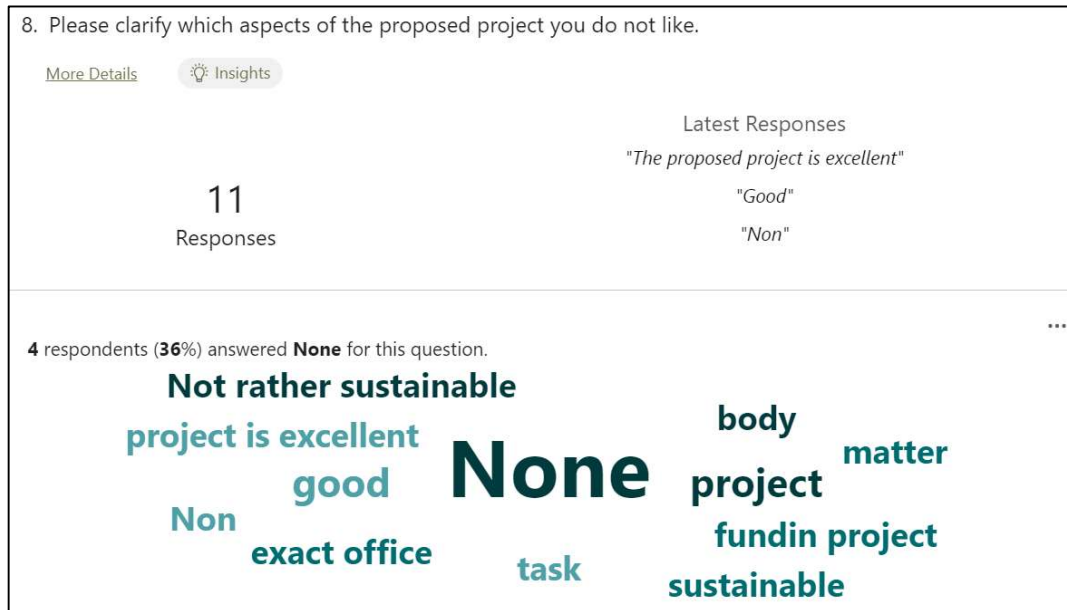
The responses to Question 6 show that feedback loops, information dissemination and stakeholder engagement are areas to further address.

Question 7.



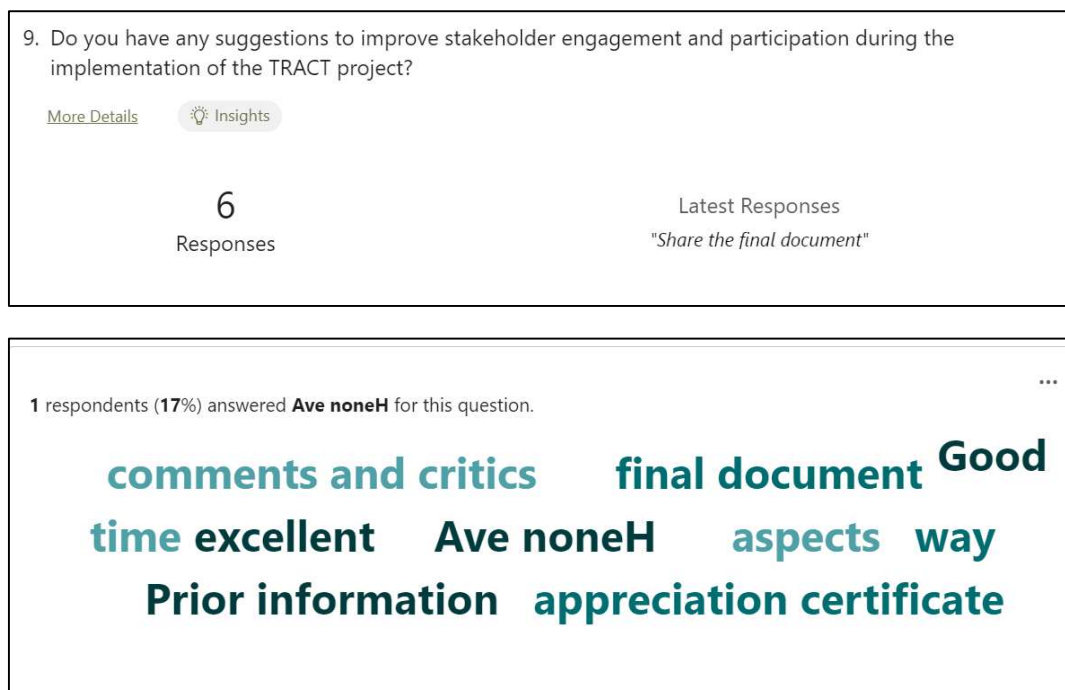
Of the 11 respondents to question 7, 82% declared that there are no aspects of the project proposal which they do not like, while 18% outlined there were aspects of the project they did not like.

Question 8.



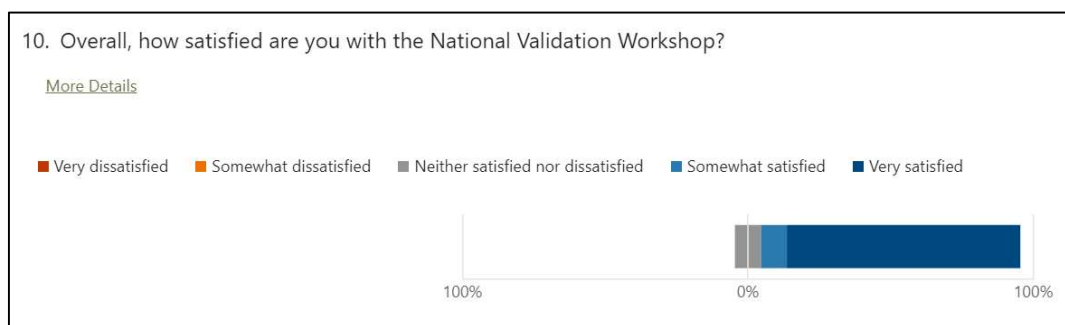
On clarifying which aspects of the proposed project, the responders did not like, the answers range from sustainability, and funding. 36% answered None, with one responder answer that the 'project is excellent'.

Question 9.



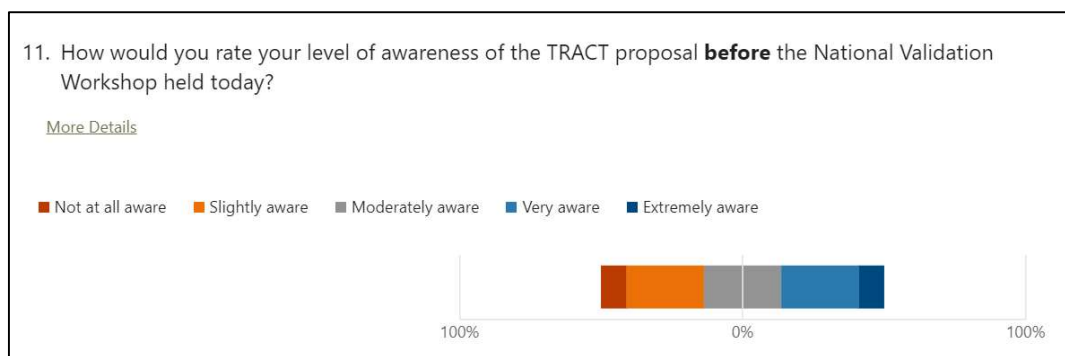
The 6 responses on the suggestion to improve stakeholder engagement and participation are shown above. Question 10.

Question 10.



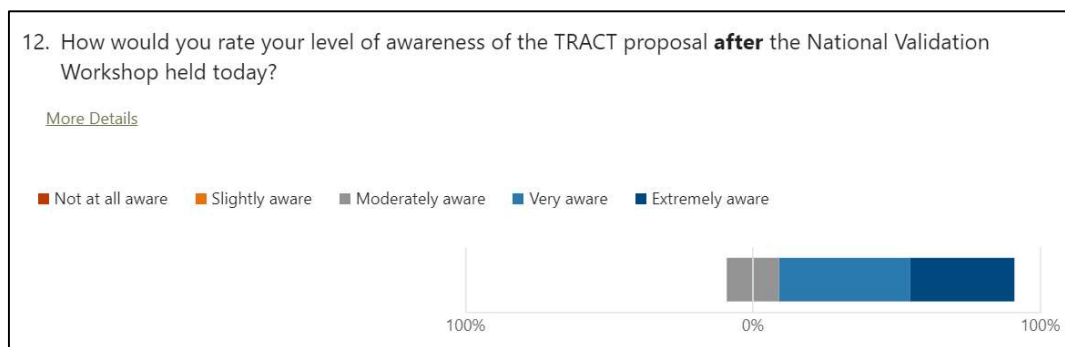
81% were Very satisfied with the National Validation Workshop, with the rest either somewhat satisfied or neither satisfied nor dissatisfied.

Question 11.



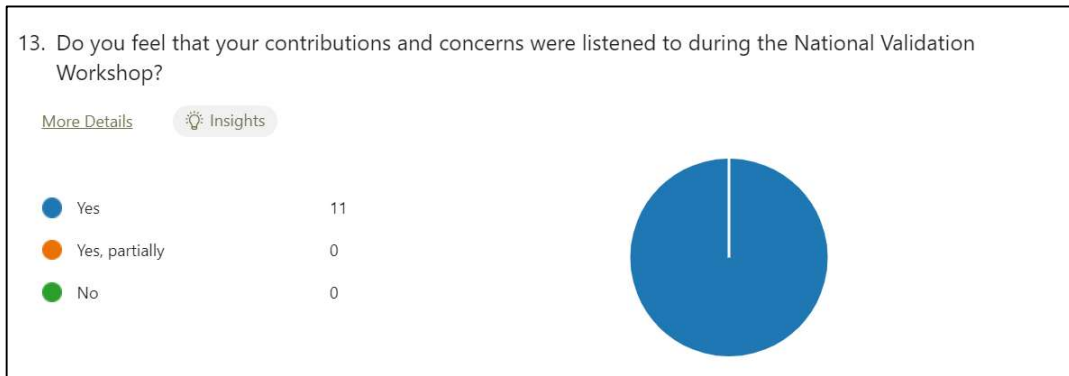
Interestingly, there was an even split between those who were aware and those were not aware of the TRACT proposal before the National Validation Workshop.

Question 12.



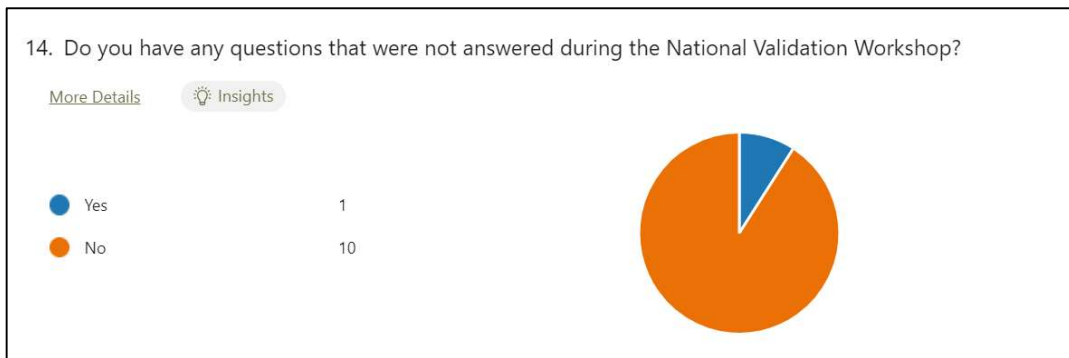
The vast majority of respondents were extremely or very aware of the TRACT proposal after the National Validation Workshop.

Question 13.



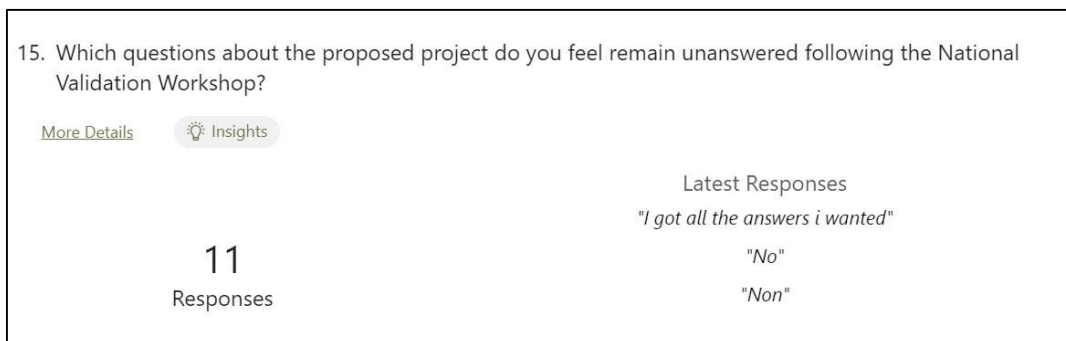
100% of the respondents answered that their contributions and concerns were listened to during the National Validation Workshop.

Question 14.



91% of respondents answered they had no questions about the proposed project that remain unanswered following the National Validation Workshop.

Question 15.

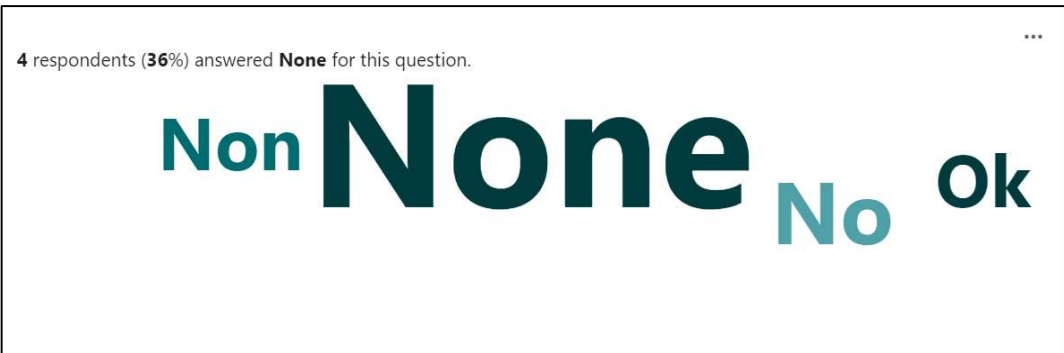
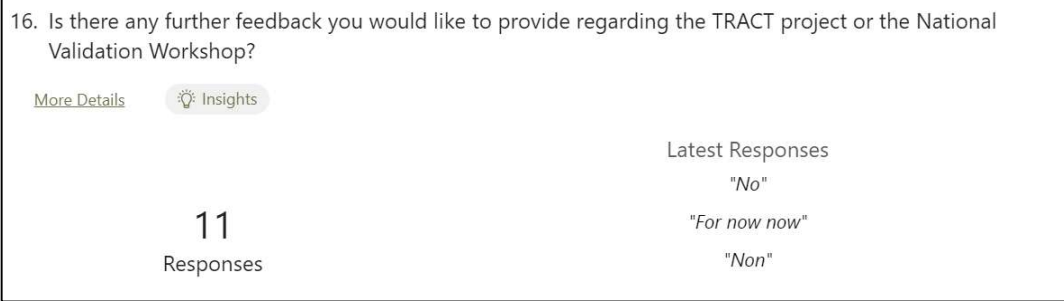


4 respondents (36%) answered **None** for this question.

Non ^{No} **None** answered
funding improvement in future

36% of respondents answered that they had no questions. While others answered that questions remained about Funding.

Question 16.



Appendix 4: Photographs



Figure 1. Presentation by UNEP (Credit: MCCEE)



Figure 2. Presentation by MMS (Credit: MCCEE)



Figure 3. Presentation by MRC (Credit: MCCEE)



Figure 4. Feedback from Special Envoy for Climate Change (Credit: MCCEE)



Figure 5. Feedback from NDA (Credit: MCCEE)



Figure 6. Feedback from NDMA (Credit: MCCEE)