WEATHER CLIMATE WATER
TEMPS CLIMAT EAU

WMO OMM
World Meteorological Organization
Organisation météorologique mondiale
Organización Meteorológica Mundial
Всемирная метеорологическая организация
المنظمة العالمية للأرصاد الجوية
世界气象组织

Secrétariat
7 bis, avenue de la Paix – Case postale 2300
CH 1211 Genève 2 – Suisse
Tél.: +41 (0) 22 730 81 11
Fax: +41 (0) 22 730 81 81
wmo@wmo.int – public.wmo.int

Ref.: 07943/2024-L6 MS/RSO

Our ref.: 07943/2024/MS/DP/EW4All 29 May 2024

Annexes: 2 (available in English only)

Subject: The approved project – *Denmark's Support to Early Warnings for All (EW4All) through WMO,* funded by the Ministry of Foreign Affairs of Denmark

Action required:
(1) Nominate Focal Points(s) to attend the Project Steering Committee (PSC) Meetings
(2) Nominate Focal Point(s) to assist WMO throughout the implementation of the project

Dear Sir/Madam,

It is my pleasure to inform you that following the three-month inception period, the project titled *Denmark's Support to EW4All through WMO* has been formally approved by the Ministry of Foreign Affairs of Denmark. Therefore, I would like to thank you for your contributions to the project workplan and log frame through the consultations which were conducted with you and your institution in March 2024, referring to the previous letter sent on 11 March 2024 (Annex 1). The information provided significantly supported the development of the project.

The project aims to support efforts in Africa for the Early Warnings for All (EW4All) initiative and is specifically focused on the immediate actions that are required to roll out the integrated approach across the essential four Early Warnings for All pillars, in the five selected target countries: Niger, Somalia, South Sudan, United Republic of Tanzania and Uganda. These five countries were selected based on a variety of factors, including ongoing discussions with the Members, the demand and readiness of the countries to engage quickly with the EW4All initiative and the presence of Denmark's Strategic Sector Cooperation (SSC) through the Danish Meteorological Institute (DMI).

The support will build on existing work in the five countries and will entail, amongst others: assessing institutional and operational capacity needs and strengthening identified capacity gaps; strengthening existing coordination and governance mechanisms for early warning systems (EWS), including coordination and aligning with existing disaster management and disaster risk management mechanisms, across key national and local actors; and undertaking foundational interpillar and pillar related activities designed to improve national to local linkages and advance end-to-end early warning outcomes that prioritize most at risk groups and vulnerable communities. More information can be found in the project document (Annex 2).

To: Permanent Representatives of Niger, Somalia, South Sudan, United Republic of Tanzania and Uganda with WMO (limited distribution)

cc: Hydrological Advisers

WMO is focusing on Pillar 2: Detection, observations, monitoring, analysis and forecasting of hazards, and is strengthening observation, monitoring, forecasting and warning services at the national level, as well as supporting early action in fragile, conflict, and violence affected contexts (FCVs) through the WMO Coordination Mechanism (WCM) authoritative information and expert advice on weather, climate and water and also improving the production, analysis, interpretation and use of climate and risk information to strengthen the Multi-Hazard Early Warning Systems (MHEWS).

The *Denmark's Support to EW4All* project will run from 28 March 2024 to 31 December 2027, in line with the EW4All initiative. WMO will act as the lead implementing partner and be supported by the other global pillar leads for the EW4All initiative: the United Nations Office for Disaster Risk Reduction (UNDRR), the International Telecommunications Union (ITU) and the International Federation of Red Cross and Red Crescent Societies (IFRC).

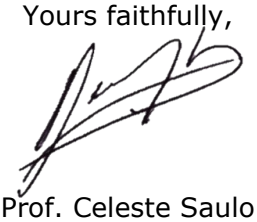
In this regard, and for WMO to better coordinate project activities, I would kindly request you to nominate a project focal point to represent your institution and collaborate with the project management team at WMO throughout the lifetime of the project. Additionally, please nominate a high-level focal point for the Project Steering Committee (PSC), as there will be a meeting of the committee once per year. Kindly note that it is preferable to have a PSC nominee different from the project focal point(s).

I would be grateful if you could send your reply to Dr Agnes Kijazi (akijazi@wmo.int), Director of Regional Office for Africa, with a copy to Mr Jason Watkins (jtwatkins@wmo.int), Associate Project Manager, Project Development and Management Unit, by **14 June 2024**.

Should you require any complementary information please do not hesitate to contact Mr Watkins.

I look forward to collaborating with you on this new initiative.

Yours faithfully,



Prof. Celeste Saulo
Secretary-General

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wmo@wmo.int – public.wmo.int

Ref.: 03532/2024-L7 MS/DP

Our ref.: 03532/2024/MS/DP 12 March 2024

Annex: 1

Subject: Formal Approval of the Denmark's support to Early Warning for All (EW4All)

Action required: Signature of the Letter of No-Objection

Dear Sir/Madam,

I am pleased to inform you that the Ministry of Foreign Affairs of Denmark will fund a USD 5,72 million four-year project in Niger, Somalia, South Sudan, Uganda, and Tanzania to strengthen Early Warning Systems. This project will be led by the World Meteorological Organization (WMO) and implemented together with the United Nations Office for Disaster Risk Reduction (UNDRR), the International Telecommunication Union (ITU), and the International Federation of Red Cross and Red Crescent Societies (IFRC).

Denmark's support to Early Warning for All (EW4All) was designed to enable implementation of multi-hazard early warning systems (MHEWS) in the target countries, which will significantly reduce the loss of life, economic and material impacts caused by hydrometeological hazards or severe climate events. This will be done through production, analysis, interpretation and use of climate and risk information to strengthen MHEWS. Also, countries will get the capacity to monitor and forecast priority hazards to generate and disseminate actionable early warning responses, in line with the Multi Hazard Early Warning for all Africa Action Plan 2023 –2027, to save lives, protect property and livelihood. Communities will get their capacity developed to respond, prevent or mitigate impacts of climate related hazards. All countries will also get an enabling policy environment for effective coordination between relevant agencies and stakeholders.

The Danish project proposal was drafted using information from the World Bank reports, WMO databases, and insights from WMO Regional Office for Africa (RAF). The document was approved in December 2023 and as part of the first project phase, an inception report with a project Workplan should be submitted for endorsement before the 28 March 2024. This stage will involve thorough consultations with each National Meteorological and Hydrological Service (NMHS) to refine the content of the initiative. We will seek to gather your perspectives on operational aspects, priorities, and future endeavours, ensuring an extensive and collaborative approach.

To firmly establish country ownership of the project, it is essential, as a first step, to provide evidence of commitment and support in the form of a no-objection letter. This letter should be signed by the Permanent Representative with WMO or the Ministers of each country. A sample copy of the no-objection letter is attached herewith.

To: Permanent Representatives of Niger, Somalia, South Sudan, Tanzania, and Uganda with WMO (limited distribution)

I confirm my dedication to your national objectives and the goals of WMO, and eagerly look forward to the opportunity for additional collaborative engagement.

Yours faithfully,

Prof. Celeste Saulo
Secretary-General

TEMPLATE FOR A NO-OBJECTION LETTER

[*Your country's letterhead*]

Ref.: 03532/2024-L7 MS/DP

World Meteorological Organization (WMO)
Secretariat
7 bis, avenue de la Paix – Case postale 2300
CH 1211 Genève 2 – Suisse
Tel: +41 (0) 22 730 81 11
Fax: +41 (0) 22 730 81 81
wmo@wmo.int – public.wmo.int

[*Date*]

Subject: No-Objection Letter for the Denmark's support to Early Warning for All (EW4All)

Dear Sir/Madam,

I am writing on behalf of **[your country]** to express our commitment to the Denmark Contribution to Early Warnings for All (EW4All) project. We acknowledge the importance of this initiative and understand its relevance in reducing the loss of life and economic and material impacted by disasters or severe climate events in Niger, Somalia, South Sudan, Tanzania, and Uganda. We express our gratitude for the support given in the production, analysis, interpretation and use of climate and risk information to strengthen our MHEWS. Furthermore, we extend our appreciation for the assistance in enhancing our capacity to monitor and forecast priority hazards, facilitating the generation and dissemination of actionable early warning responses.

In line with the collaborative nature of this project, we hereby provide our formal no-objection to the participation of **[your country]**. We look forward to actively participating in the programme and collaborating with all stakeholders involved.

We appreciate the opportunity to be part of this significant initiative and anticipate a successful and impactful collaboration.

Yours faithfully,

[*your full name*]
[*your title*]
[*your organization and country*]
[*contact information*]

Project Document

Denmark's support to Early Warning for All (EW4All) through WMO

December, 2023

Ministry of Foreign Affairs, Denmark

Public 360 No: 23/25552

Denmark's support to Early Warning for All (EW4All) through WMO

Key results:

- Multi hazard early warning systems will be in place in 5 LDCs in Africa.
- Anticipatory action in fragile, conflict, and violence affected contexts (FCVs) are supported.
- Regional capacity is developed in Africa for climate impact, risk assessment and information services.

Justification for support:

The support is well aligned with Denmark's development cooperation strategy *The World We Share* and matches the Danish Government's commitment to meet Denmark's international commitments on climate change. Also, the support fits into the long-range strategy of other adaptation and loss and damage initiatives supported by Denmark over the past years. The support focuses on five countries in Africa which have demonstrated the demand and readiness to engage quickly with the EW4All initiative, through existing cooperation, and where the presence of Denmark's Strategic Sector Cooperation (SSC) is active. With the support to EW4All Denmark will contribute to gearing of investment in climate adaptation measures in these countries and can expect to achieve great efficiency as for every dollar invested in climate data, at least 32 dollars in socio-economic return could be realized.

Major risks and challenges:

Global or national changes in the political or economic environment may slow or restrict project implementation, noting that three of the target countries are fragile, conflict, and violence-affected contexts.

At country level the practical challenges and the scale of reform needed may exceed the technical and financial resources available and the distribution mechanism may not deal equitably with some groups (e.g. women, minorities, or marginalized people).

Partners could engage in fraud, corruption or human rights violations under activities funded or facilitated by the project.

File No.	23/25552				
Country	Niger, Somalia, South Sudan, Uganda, Tanzania				
Responsible Unit	GDK				
Sector	Climate finance				
Partner	World Meteorological Organization				
DKK million	**2023**	**2024**	**2025**	**2026**	**TOTAL**
Commitment	40				40
Projected disbursement	39.5		0.5		40
Duration	4 years				
Previous grants	*N.A.*				
Finance Act code	FFL23: §06.34.01.75				
Head of unit	Karin Poulsen				
Desk officer	Emilie Wieben				
Reviewed by CFO	YES: Jacob Strange-Thomsen				

Relevant SDGs *[Maximum 1 – highlight with grey]*

No Pov-	No Hunger	Good,	Quality Ed-	Gender	Clean Wa-
Afforda-ble Clean	Decent Jobs, Econ.	Industry, Innova-	Re-duced Ine-qualities	Sustainable Cities, Com-	Re-sponsible Consump-
Climate Action	Life below Water	Life on Land	Peace & Jus-tice, strong	Partnerships for Goals	

Development Objective: A world where every person is protected by life-saving early warning systems

Environment and climate targeting - Principal objective (100%)

	Climate adaptation	Climate mitigation	Biodiversity	Other green/environment
Indicate 0, 50% or 100%	100%			50%
Total green budget (DKK)	**40,000,000**			

Justification for choice of partner:

WMO is co-lead of implementation of EW4All and a global authoritative voice on multi-hazard early warning systems. WMO has strong connections to national meteorological and hydrological services in the five target countries for the support and WMO plays a central role in normative work and certification standardization of meteorological data, forecasting and climate service capacities and has implemented EW4All since the implementation started two years ago, with 5 out of the 13 initial countries had their national launches. The target countries are chosen because they are EW4All countries (Niger, Somalia, South Sudan, Uganda) or have strong strategic sector cooperation (Tanzania) with Danish Meteorological Institute.

Summary:

The Danish support to EW4All will enable implementation of multi-hazard early warning systems (MHEWS) in 5 LDCs in Africa (Niger, Somalia, South Sudan, Uganda and Tanzania) which will significantly reduce the loss of life and economic and material impacted by disasters or severe climate events. This will be done through production, analysis, interpretation and use of climate and risk information to strengthen MHEWS. Also, countries will get the capacity to monitor and forecast priority hazards to generate and disseminate actionable early warning responses, in line with the Multi Hazard Early Warning for all Africa Action Plan 2023 –2027, to save lives, protect property and livelihood. Communities will get their capacity developed to respond, prevent or mitigate impacts of climate related hazards. All countries will also get an enabling policy environment for effective coordination between relevant agencies and stakeholders.

Budget:

Strengthen end-to-end early warning systems	DKK 27.0 million
Supporting Handbook on Early Warning Systems and Early Action in FCV Contexts	DKK 3.5 million
Climate science information for climate action	DKK 2.4 million
Global coordination and support	DKK 2.0 million
Program support costs	DKK 4.537 million
Mid-term reviews	DKK 0.563 million
Total	**DKK 40.0 million**

Abbreviations

AfDB	African Development Bank
COP	Conference of the Parties
CREWS	Climate Risk and Early Warning Systems
CSO	Civil Society Organisation
DAC	Development Assistance Committee
DKK	Danish Krone
DMI	Denmark's Meteorological Institute
ELQ	Evaluation Learning and Quality unit
EUR	Euro
EWEA	Early Warning and Early/Anticipatory action
EWS	Early Warning Systems
FCV	Fragile, Conflict and Violence affected contexts
GBON	Global Basic Observing Network
GDK	Green Diplomacy and Climate unit
HRBA	Human Rights-Based Approach
IASC	Inter-Agency Standing Committee
ICPAC	Intergovernmental Authority on Development – Climate Prediction and Application Center
IFRC	The International Federation of Red Cross and Red Crescent Societies
IPCC	Intergovernmental Panel on Climate Change
ITU	International Telecommunication Union
LDC	Least Developed Country
LNOB	Leave No-One Behind
MFA	Ministry of Foreign Affairs of Denmark
MHEWS	Multi-Hazard Early Warning System
MoU	Memorandum of Understanding
NMHS	National Meteorological and Hydrological Service

OCHA	United Nations Office for the Coordination of Humanitarian Affairs
ODA	Official Development Assistance
OECD	Organisation for Economic Co-operation and Development
SDG	Sustainable Development Goal
SIDS	Small Island Developing State
SOFF	Systematic Observations Financing Facility
EW4ALL	Systematic Observations Financing Facility
SSC	Strategic Sector Cooperation
ToC	Theory of Change
ToR	Terms of Reference
UN	United Nations
UNCDF	United Nations Capital Development Fund
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNDRR	United Nations Disaster Risk Reduction Unit
UNFCCC	United Nations Framework Convention on Climate Change
UNOCC	United Nations Operation and Crises Center
USD	US Dollar
WCM	WMO Coordination Mechanism
WIS	Weather Information System
WMO	World Meteorological Organization

Table of contents

1 Introduction

The present project document outlines the background, rationale and justification, objectives and management arrangements for development cooperation concerning Denmark's support to Early Warning for All (EW4All) over the coming three years as agreed between the parties: World Meteorological Organization (WMO) and Department for Green Diplomacy and Climate (GDK) in the Ministry of Foreign Affairs of Denmark. The project document is an annex to the bilateral agreement with the implementing partner and constitutes an integral part hereof together with the documentation specified below.

"The Documentation" refers to the partner documentation for the supported intervention, which is *Early Warnings for All Executive Action Plan2023 -2027*[1] and Early Warning for all Africa Action Plan, 2023 – 2027[2].

2 Context

On World Meteorological Day, 23 March 2022, the UN Secretary-General António Guterres called for every person on Earth to be protected by early warning systems within five years, with the priority to support the most vulnerable first[3], with requested funding of USD3.1 billion. To address this the Executive Action Plan 2023-2027 was developed and sets out the concrete way forward to achieve the goal and how the United Nations (UN) system and a wide range of partners will work together to effectively deliver on this objective. A Multi Hazard Early Warning for all Africa Action Plan, 2023 – 2027 is being developed, with the specific aim to improve early warning systems across the continent to enhance disaster preparedness and response in Africa. This action plan contains activities and actions that this project will leverage on to support early warning in Africa.

Early warning systems are a proven, effective, and feasible climate adaptation measure, that save lives and provide at least a tenfold return on investment. The WMO State of the Climate 2021 Report[4] and the 2022 Africa State of climate Report shows that extreme weather, such as floods, droughts, heatwaves and storms, led to significant economic losses and inflicted a heavy toll on human lives and wellbeing. In some parts of the countries around the Greater of Africa, including Somalia, Tanzania, South Sudan and Uganda experienced severe successive droughts. The IPCC's Sixth Assessment Report on Impacts, Adaptation, and Vulnerability[5] recognized early warning systems and disaster risk management activities as key cross-cutting adaptation options, that enhance the benefits of other adaptation measures when combined.

Early Warning Systems are underpinned by a global upward reporting of surface and space-based observation data, exchanged freely between all countries, and ingested into several highly advanced supercomputing modelling centers. These centers run numerical models which replicate the physical interactions of the full Earth System (weather, hydrology, ocean, cryosphere and more) to create predictions, which are then cascaded back down from global to regional and national levels, so that National Hydrological and Meteorological Services (NMHS) can provide forecast services to their citizens. Without this daily, complex, global effort enabled by WMO, modern day weather and hydrology forecasts would not be possible. Thus, observation, monitoring and forecasting is critical for societies to be better equipped to understand, prepare for, and respond to the evolving challenges of our changing climate[6].

[1] https://library.wmo.int/records/item/58209-early-warnings-for-all
[2] In draft not yet publically available.
[3] https://www.un.org/en/climatechange/early-warnings-for-all
[4] https://library.wmo.int/viewer/56300/download?file=1290_Statement_2021_en.pdf&type=pdf&navigator=1
[5] https://www.ipcc.ch/report/sixth-assessment-report-working-group-ii/
[6] https://wmo.int/site/wmo-and-early-warnings-all-initiative

Just 24 hours' notice of an impending hazardous event can cut the ensuing loss and damage by 30 %. The Global Commission on Adaptation[7], found that spending just USD800 million on early warning systems in developing countries would avoid losses of USD3-16 billion per annum. Such progress is only possible with modern science, sustained systematic observing networks, daily international exchange of quality data, advanced supercomputing power, the translation of forecasts into impacts, plus advances in telecommunications and connectivity.

2.1 Brief summary of main issues

The latest IPCC report[8] indicates that about 3.3–3.6 billion people may currently be vulnerable to the negative impacts of climate change. Climate change is accelerating, with rapidly rising global temperature, increasing number of extreme weather events resulting in sea level rise, increased floods, droughts and wildfires and devastating impacts on people and biodiversity. And the one hardest hit are the poorest and most vulnerable countries. The number of disasters has increased by a factor of 5 over the past five decades, and economic losses have increased a factor of 7 with average daily losses of USD383 million. The annual adaptation funding needs in developing countries are expected to increase by up to USD300 billion by 2030, and by up to USD500 billion by 2050, demonstrating that the current level of finance would need to increase tenfold by the end of this decade to meet the needs.

People in Africa, South Asia, South and Central America, and Small Island Developing States (SIDS) are 15 times more likely to die from climate-related disasters. Between 1970 and 2021, weather, climate, and water-related disaster caused more than 2 million deaths, with 90% in developing countries.[9]

Water is the primary vehicle through which the threats of climate change is felt. Over the past twenty years, water-related hazards have consistently increased in frequency and intensity with at least 1.6 billion people having been affected by floods and 1.4 billion by droughts[10],[11]. A weather, climate or water-related disaster has occurred on average every single day within the past 50 years– taking the lives of 115 people daily and causing USD202 million in daily losses[12]. These challenges will intensify with future climate change, population growth and increasing economic activities in flood prone areas, underscoring the importance of building resilience to socio-economic impacts of extreme events.

The UNDRR and WMO Global Status of Early Warning Systems: Target G report (2022)[13], highlighted that only half of countries have multi-hazard early warning systems (MHEWS) in place with coverage especially low in Small Island Developing States (SIDS), Least Developed Countries (LDCs) and in Africa – where on 60% has coverage. Even where warning elements exist, coverage across the full warning cycle remains limited.

Countries with limited early warning coverage have disaster mortality that is eight times higher than countries with substantial to comprehensive coverage[14]. Investing USD800 million in early warning systems in developing countries would avoid losses of USD3-16 billion per year and save thousands of people's lives.[15]

[7] https://gca.org/about-us/the-global-commission-on-adaptation/
[8] https://www.ipcc.ch/report/ar6/wg2/
[9] https://public-old.wmo.int/en/media/press-release/early-warnings-all-initiative-scaled-action-ground
[10] https://www.worldbank.org/en/news/feature/2021/06/17/floods-and-droughts-an-epic-response-to-these-hazards-in-the-era-of-climate-change
[11] https://www.worldbank.org/en/news/immersive-story/2023/11/14/climate-action-game-changers-adaptation-to-climate-shocks
[12] X-feed by WMO Director General; 2. September 2022
[13] https://www.undrr.org/media/84088/download?startDownload=true
[14] https://public-old.wmo.int/en/media/press-release/%E2%80%8Bearly-warning-systems-must-protect-everyone-within-five-years
[15] https://public-old.wmo.int/en/media/press-release/early-warnings-all-action-plan-unveiled-cop27

Even fewer countries have MHEWS that are based in national legislation and regulatory frameworks for emergency response, which are essential to ensure their effectiveness. Beyond the technical issues related to data collection and interoperability, understanding of the socioeconomic benefits of MHEWS is poor and relevant legislation is missing[16].

A recurring problem in MHEWS is that the authors of warnings rarely know the end users well. Recipients, when they receive the message, often do not understand its full meaning, particularly when it incorporates technical language – this can result in a misunderstanding of warnings and a lack of trust in the issuing authorities. While progress has been made in hazard monitoring and forecasting, early warning infrastructure and dissemination, alerts and decision-support services need to reach and better support communities, in a time-sensitive manner. Also, MHEWS need to be more people-oriented with focus on last-mile outreach, with a shift in focus from early warning dissemination to communication through impact-based forecasting and warnings[17]. For MHEWS to be effective, civil society organizations play an important role as a bridge between technical scientific agencies and the community, including local volunteer networks that are often the only ones able to reach specific groups.

In-situ observations fall far short of meeting the requirements of the Global Basic Observation Network (GBON). In the forecasting area, many countries, especially in Africa, do not have the capacity to incorporate an impact-based approach to forecasting and still have challenges in accessing, analyzing and translating prediction model outputs into actionable warning messages.

New opportunities for communicating early warnings include the incredible growth in information and communication technologies, with advances made also in satellite based early warning systems, and from the wide reach of mobile services and networks. Today 95% of the world's population has access to mobile broadband networks and 75% owns a mobile phone, creating new opportunities for early warnings by leveraging mobile networks[18]

2.2 Strategic framework and considerations

The Paris Agreement[19] is the overall strategic framework in relation to Article 7 on adaptation, and Article 8 on averting, minimizing and addressing loss and damage. Other frameworks that will guide implementation of the EW4ALL are the Sendai Framework for Disaster Risk Reduction[20], the Global Facility for Disaster Reduction and Recovery (GFDRR)[21], the Initiative on Climate Risk Early Warning Systems[22], the UN Climate Resilience Initiative A2R (Anticipate, Absorb, Reshape)[23], the International Strategy for Disaster Reduction (UNISDR)[24] and the UN Principles for Sustainable Insurance[25]. EW4All is also aligned with the goals of the Glasgow Dialogue[26] and Systematic Observations Financing Facility (SOFF)[27].

[16] https://library.wmo.int/viewer/58209/download?file=Executive_Action_Plan_en.pdf&type=pdf&navigator=1
[17] https://www.undrr.org/media/84088/download?startDownload=true
[18] https://www.itu.int/en/ITU-D/Emergency-Telecommunications/Pages/Early-Warnings-for-All-Initiative.aspx and https://www.itu.int/en/ITU-D/Emergency-Telecommunications/Pages/Publications/EW4All.aspx
[19] https://unfccc.int/sites/default/files/english_paris_agreement.pdf
[20] https://www.preventionweb.net/files/43291_sendaiframeworkfordrren.pdf
[21] https://www.gfdrr.org/sites/default/files/publication/GFDRR-A%20Partnership%20for%20Mainstreaming%20Disaster%20Mitigation%20in%20Poverty%20Reduction%20Strategies.pdf
[22] https://public.wmo.int/en/climate-risk-and-early-warning-systems-crews
[23] http://www.a2rinitiative.org/
[24] https://sdgs.un.org/statements/un-international-strategy-disaster-reduction-unisdr-8377
[25] https://www.unepfi.org/insurance/insurance/
[26] https://unfccc.int/event/glasgow-dialogue
[27] https://alliancehydromet.org/soff/

The Sendai Framework for Disaster Risk Reduction 2015-2030[28], adopted at the Third UN World Conference on Disaster Risk Reduction in Sendai, Japan, on March 18, 2015, outlines seven clear targets and four priorities for action to prevent new and reduce existing disaster risks: (i) Understanding disaster risk; (ii) Strengthening disaster risk governance to manage disaster risk; (iii) Investing in disaster reduction for resilience and; (iv) Enhancing disaster preparedness for effective response, and to "Build Back Better" in recovery, rehabilitation and reconstruction. It aims to achieve the substantial reduction of disaster risk and losses in lives, livelihoods and health and in the economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries over the next 15 years.

Early warning systems support the advancement of the 2030 Agenda for Sustainable Development and provide crossing-cutting benefits to nearly all of the Sustainable Development Goals Progress on achieving universal early warning systems will most directly contribute to the achievement of SDG 1-No poverty; target 1.5; SDG11 -Sustainable cities and communities, target 11.5, and; SDG13 Climate Action, target 13.1 and 13.3.

Denmark's development strategy *The World We Share*[29] guide Denmark's development assistance and includes a pillar to strengthen action to support for *addressing climate change adaptation, nature, the environment, and resilience in the poorest and most vulnerable countries*. A specific objective under this pillar includes to: *Contribute to preventing and reducing the risk of loss and damage due to the impacts of climate change, and support recovery if climate disaster strikes.*

Denmark's support to EW4All also meet several of the core elements of the vision in *"The World We Share"* [30]*,* including*:*

- D*evelopment cooperation must fight poverty and inequality and promote democracy, sustainable development, peace and stability*
- *Take the lead on implementing the Paris Agreement and contribute to creating sustainable development and growth for the world's poorest*
- *Meet our international climate commitments, including in relation to climate finance*

The support to EW4All is also well aligned to the Danish long-term strategy for global climate action "*A Green and Sustainable World*"[31] that drives adaptation and resilience initiatives in the *fight against climate change to preventing and reducing the risk of losses and damage as a result of climate change, and help with rebuilding efforts in the wake of climate disasters*.

By supporting EW4All Denmark contributes to international leadership in climate change adaptation.

Denmark´s support to EW4All in five target countries in Africa also fits directly with the priority of the Danish *Government's Priorities for Danish Development Cooperation 2024; (September 2023)*[32] including that*, Creating sustainable development and stability in Africa are key priorities for the Government.* Also, *the Danish Government is heightening the green focus of development cooperation... Climate aid alone will comprise*

[28] https://www.preventionweb.net/files/43291_sendaiframework-fordrren.pdf?_gl=1*9iiqkp*_ga*MTM0NDQzMjQ5OC4xNzAx-MTUzMTEz*_ga_D8G5WXP6YM*MTcwMTE1MzE1OC4xLjEuMTcwMTE1NDIzNy4wLjAuMA..
[29] https://amg.um.dk/policies-and-strategies/stategy-for-danish-development-cooperation
[30] https://um.dk/en/danida/strategies-and-priorities
[31] https://www.regeringen.dk/media/10084/a_green_and_sustainable_world.pdf
[32] https://um.dk/en/danida/strategies-and-priorities/government-priorities-danish-development-assistance

30% of the assistance to developing countries in 2024. 60% of this funding will be prioritised for climate adaptation in some of the world's poorest and most vulnerable countries.[33]

2.3 Early Warning for All (EW4All)

The Early Warnings For All initiative (EW4All) was formally launched by the UN Secretary-General in November 2022 at the COP27 meeting in Sharm El-Sheikh. The Initiative calls for the whole world to be covered by an early warning system by the end of 2027.

EW4All is co-led by WMO and UNDRR and supported by pillar leads ITU and IFRC. The initiative promotes collaboration and synergies across all partners working on early warning system implementation.

The "Early Warnings for All" initiative underscores the joint commitment to ensuring that every population has universal access to timely and accurate early warnings for extreme weather events and multiple disasters. In other words, it is a joint / global initiative to ensure that everyone on earth is protected by EWS

An Executive Action Plan (EAP)[34] and the Multi-hazard Early Warning, Africa Action plan articulates four pillars for implementation and are expected to guide the implementation of EW4All. The four individual pillars include:

Pillar 1 (Risk knowledge): technical support to achieve standardized minimum core capabilities to collect, analyze, produce, and use quality, timely and targeted risk information; helping countries have open access to risk information; capacity building to ensure relevant actors are able to use climate and risk information to inform decision-making for early warning. This work will align with and support existing efforts by national authorities to strengthen disaster risk reduction (led by United Nations Office for Disaster Risk Reduction (UNDRR)).

Pillar 2: (Observation, monitoring, analysis, and forecasting): Gap assessments and expert advice for implementation of observation, monitoring, analysis and forecasting in as part of the EWS value chain. Scaling up of EWS projects through proposal design aligned to global hydrometeorological standards, justified with sound climate science that enables better access to climate finance (led by WMO).

Pillar 3: (Communication and dissemination): Provision of the necessary technical inputs towards strengthened early warnings, risk communication and dissemination channels. Technical expertise to pursue robust, trusted and efficient technologies and channels, and intermediaries (journalists, etc.) to reach the entire population (led by International Telecommunication Union (ITU)).

Pillar 4: (Preparedness to respond): Scaling-up and replicating best practices in preparedness and anticipatory action, to enable aligned early actions in most at-risk communities. This includes development and alignment of holistic early warning and anticipatory action plans, which enable taking actions such as evacuation, strengthening of infrastructure, pre-positioning of essential stocks and supplies based on early warnings before disasters hit. The preparedness capacities, systems and procedures of local governments, responders and vulnerable communities will be strengthened (led by International Red Cross and Red Crescent Societies (IFRC)).

These have been adapted to the African context through the Early Warnings for All Action Plan for Africa

Multi-Hazard Early Warning for ALL – Action Plan for Africa

[33] https://amg.um.dk/policies-and-strategies/how-to-notes-for-implementation-of-the-danish-strategy-for-development-cooperation

[34] https://library.wmo.int/records/item/58209-early-warnings-for-all

Implementation follows an 18-month roll-out plan, including a framework of objectives, outcomes and indicators at the pillar and inter-pillar level considering gender sensitivity and disability inclusiveness at each stage.

The Multi-hazard Early Warning for All Action Plan for Africa (2023-2027) was unveiled on the opening day of the Africa Climate Summit in Nairobi, Kenya, on 4 September. The Africa Action plan was developed to bridge existing gaps and establish continent-wide early warning systems coverage by 2027 and support the capacities of AMHEWAS and its objectives. This Plan will build upon ongoing regional early warning efforts and provide strategic direction for member states and stakeholders in addressing weather, water, and climate service-related challenges and opportunities.

The Action Plan is a comprehensive initiative in Africa aimed at improving early warning systems across the continent to enhance disaster preparedness and response.

The initiative outlines the key objectives, strategies, and expected outcomes. The primary objective of the initiative is to strengthen early warning systems in Africa, ensuring that timely and accurate information about natural hazards and impending disasters reaches all segments of society, particularly the most vulnerable populations.

The Action Plan is anchored on existing continental strategies and initiatives to build resilience that include the Africa Regional Strategy for Disaster Risk Reduction, the Programme of Action for the implementation of Sendai Framework 2015-2030 in Africa, the Africa Climate Change and Resilient Development Strategy and Action Plan 2022-2032, the Revised Integrated Africa Strategy for Meteorology (Weather and Climate Service), among others. It aims to support the implementation of the EW4All initiative in Africa and to also strengthen the operationalization of AMHEWAS to bridge existing gaps and establish continent-wide early warning systems coverage by 2027. EW4All Action Plan is fully aligned with Agenda 2063, 'The Africa we want', the Africa Climate Change Strategy, the 2030 global agenda and supports key Sendai Framework for Disaster Risk Reduction provisions and the Paris Agreement on climate change and the Sustainable Development Goals on poverty, hunger, health, water, clean energy, climate action and sustainable cities.

2.4 Experience and lessons

Since the early 1970's, countries in Africa have put in place early warning capacities in relation with drought and food insecurity, under the coordination of Intergovernmental Authority on Development – Climate Prediction and Application Center (ICPAC)[35] and AGRHYMET[36]. WMO is supporting the multipurpose use of observing and forecasting capacities, and expansion of early warning systems to cover additional hazards such as flooding (flash flooding, urban flooding, coastal flooding and riverine flooding), thunderstorms, sand and dust storms. The approach is to ensure seamless approach to forecasting and response, from slow-onset (seasonal) to nowcasting (next hours, for rapidly developing weather events) timescales.

In regional and global projects results vary across benefitting countries due to different human and financial available resources, political situation and potential for regional collaboration. An important lesson is that including gender components in projects will generate cascading actions and dynamics that is beneficial to foster new partnerships. Also, an agile approach to project implementation (e.g. flexibility to reprogramming) is important to adjust to situations across the lifetime of the project.

Experience from WMO also illustrates the importance of member involvement in project development to buy-in and commitment and that coordination across stakeholders in the regions is time consuming.

[35] https://www.icpac.net
[36] https://agrhymet.cilss.int/#

2.5 Denmark's support to EW4All

Denmark's support to EW4All is focused on the immediate actions that are required to roll-out the integrated approach, across the four EW4All pillars, in the five selected target countries: Niger, Somalia, South Sudan, Uganda and Tanzania. These five countries were selected based on a variety of factors, including ongoing discussions with the Member States, the demand and readiness of the countries to engage quickly with the EW4All initiative and the presence of Denmark's Strategic Sector Cooperation (SSC) through DMI. The support will build on existing work in the five countries and will entail, amongst others, assessing institutional and operational capacity needs and strengthening identified capacity gaps: strengthening existing coordination and governance mechanisms for early warning systems (EWS), including coordination and aligning with existing disaster management and disaster risk management mechanisms, across key national and local actors and undertaking foundational interpillar and pillar related activities designed to improve national to local linkages and advance end to end early warning outcomes that prioritize most at risk groups and vulnerable communities.

The five target countries (more detail on the target countries to be found in Annex 1):

- **Somalia** – A priority country for EW4All and classified as a highly fragile state[37]. Additional funding is sought to bolster existing initiatives, including funding from the Sweden to support the EW4All –initiative, CREWS Horn of Africa and FAO SWALIM, which proposes the installation of 16 stations for GBON compliance and 3 upper air stations. The National Meteorological and Hydrological Service (NMHS) has recently been established through the Somalia National Meteorological Agency Bill in October 2023 and led by the Hydromet working group. The Bill will pave the way for the establishment of the National Meteorological Agency which is crucial for enhancing the country's resilience in the face of weather and climate threats, **as well** as initiate support for the development of a national strategic plan, human resource capacity, basic training, and essential equipment. The launch of the EW4ALL in Somalia was carried out on 15-16 November 2023. **South Sudan –** A priority country for EW4All. South Sudan is classified as a fragile state with an estimated 2.3 million internally displaced people. WMO, through the Water at the Heart of Climate Action Project will work with the Ministry of Water Resources and Irrigation on developing an Early Warning System for floods and drought and CREWS will support South Sudan Meteorological Department (SSMD) on developing meteorological forecasts and warnings. Therefore, an opportunity is to complement these efforts by working with the SSMD on the development of Climate Services which can be used for Anticipatory Action. SSMD has expressed interest in improving their climate service capacity as many of the population depend on agriculture for their livelihoods and adequate climate information has the potential to have a large impact. Furthermore, there is currently an assessment being undertaken by FAO and WFP on climate services for Anticipatory Action in order to develop a project / scale up.
- **Uganda** – A priority country for EW4All roll out. Uganda is recognized as a Target Country under the SOFF initiative and have several projects that provide a foundation for development and alignment of EW4All. Uganda is also part of the Dutch funded Water at the Heart of Climate Action –project. The Uganda National Meteorological Authority (UNMA) has relayed several essential requirements, including strengthen impact-based early warning services, maintenance of observational instruments, computing facilities for data storage, data collection tools, as well as a capacity development and training plan.
- **Tanzania** – Not yet a priority country for EW4All. However, Tanzania is a SOFF target Country and with DMI engaged in Tanzania through the SSC. The Project will build upon and align with the ongoing CREWS Initiative in East AFRICA, the Finland (FINKERAT Project) and The Korea Meteorological Administration (KMA) project "Enhancing the capacity in provision and utilization of weather and climate services. Tanzania Meteorological Authority (TMA) has recently outlined some additional priority needs, including: dissemination of weather information via cell broad-cast, support with hosting National Climate

[37] https://fragilestatesindex.org/wp-content/uploads/2023/06/FSI-2023-Report_final.pdf

Outlook Forums (NCOFS), data sharing between East Africa Countries, capacity development and availability of ITC and training equipment.

- **Niger** - Priority country for Denmark and one of the priority countries for the EW4All roll out. In addition, there is significant work to build on in Niger, including the national framework for climate services (with services currently co-designed with the agriculture and health sectors), CREWS (with the meteorological, hydrological, civil protection and food security directorates), SOFF (in readiness phase), AfDB/PPCR (completed) and WB/IDA (ongoing) projects. Niger is implementing its national warning code enacted in 2018, and expanding its early warning system to rapid-onset hazards such as flash flooding, urban flooding, rapidly developing thunderstorms, sand and dust storms, and other severe weather events

In supplement to implementation of the four pillars in the five target countries, the support will:

- Supporting early warning and early/anticipatory action in fragile, conflict, and violence affected contexts (FCVs)
- Climate science information for climate action
- Global and regional coordination and support

2.6 Danish interests, links and synergies

It is of clear interest for Denmark to help people when climate induced disasters hit, especially the most vulnerable groups of people. EW4All will reinforce this and reduce loss and damage particularly for vulnerable groups of people, when rolled out.

Support to early warning – EW4All – will strongly reinforced Denmark's other support to adaptation initiatives, especially on loss and damage – the Global Shield against Climate Risks[38] and Global Shield Solution Platform (GSSP)[39] – and country specific adaptation initiatives, e.g. HYSAWA[40] in Bangladesh. Also, Denmark's support to SOFF will, by sharing of weather data, closing the gap on the Global Basic Observing System (GBON) as an essential step for strengthening EW4All, measured through a global indicator of change, including specific sub-indicators for SIDS and LDCs to ensure that priority gaps are closed. Other initiatives supported by Denmark may also serve as vehicles for EW4All delivery. Denmark's representation in steering committee of SOFF will ensure its direct monitoring and sharing of information between SOFF and EW4All which will also limit the risk of duplication of efforts.

Denmark's support to EW4All five target countries in Africa, most with Danish representation and other development initiatives supported by Denmark, including DSIF investments, will specifically benefit from EW4All by opportunities to better secure infrastructure investments and mobilizing civil society organizations.

Denmark's strategic sector cooperation (SSC) between DMI and a meteorological institute in Africa (e.g. in Tanzania) is an additional strength, where DMI may contribute to the EW4All implementation. DMI should explore opportunities for synergy between the provision of SOFF peer advisory services, EW4All support to Tanzania and DMI's in-depth capacity development provided to SSC partners in Tanzania.

Danish NGOs with representation at the local level in developing countries will, with information from EW4All, be able to enhance their service delivery to local communities. This may include an approach which emphasizes empowerment and access to information for those in society who face significant challenges and disabilities.

[38] https://www.globalshield.org
[39] https://global-shield-solutions.org
[40] https://www.hysawa.org

2.7 WMO and other implementing partners

WMO is the lead implementing agency for Denmark's support to EW4All and responsible for the coordination and execution of the support under the four pillars in the selected five countries, with the other implementing agencies / pillar leads: UNDRR, ITU and IFRC.

The Danish support will be channeled to the 5 target countries Niger, Somalia, South Sudan, Uganda and Tanzania, all countries eligible for official development assistance (ODA) according to the Organisation for Economic Co-operation and Development's (OECD) Development Assistance Committee (DAC). Other enabling activities and direct support to countries outside the mentioned five target countries should be in Africa, in particular LDCs and SIDS and these must meet the OECD-DAC criteria.

2.8 Rationale for Danish support to EW4All

The Danish support to EW4All follows Denmark's commitment to support adaptation and the loss and damage agenda. The Danish support to EW4All fits into the long range of other adaptation and loss and damage initiatives supported by Denmark over the past few years. Following the action launched by UN Secretary-General to "ensure every person on Earth is protected by early warning systems within five years" the Danish support to EW4All also demonstrates the Danish Governments commitment[41] to contribute to meeting international targets on climate change.

The support is well aligned with Denmark's development cooperation strategy *The World We Share*. The supports focus on five countries in Africa where Denmark has other development activities to be protected from climate change impacts, where the EW4All enables informed and better preparedness, adaptation planning, and response strategies.

With the support to EW4All Denmark will contribute to gearing of investment in climate adaptation measures as every dollar invested in climate data, at least 32 dollars in socio-economic return could be realized[42].

2.9 Justification of support according to DAC criteria

The support is justified against the OECD-DAC evaluation criteria[43] as follows:

Relevance: The EW4All is a vital addition to the worldwide response to climate change and on its own responding to Denmark's development policy priorities, including climate justice and ensuring that no one is left behind. Africa stands out as one of the world's most susceptible continents to climate extremes and the impacts of climate change. The escalating intensity and frequency of extreme climate events in recent years have caused significant damage to lives and livelihoods, especially in Africa. Currently, only 40% of the African population has access to early warning systems for weather, climate, and water extremes to be addressed by EW4All. Denmark's support to EW4All will assist expanding the number of people with access to early warning in, initially in the five target countries, and eventually (with additional support to EW4All) all 30 countries will be covered.

EW4All is a key contribution to delivering climate justice to those at the frontlines of the climate crisis. It aligns with the priorities of the Paris Agreement and supports key provisions of the Sendai Framework for Disaster Risk Reduction, particularly Target G on availability and accessibility of multi-hazard early warning systems. It also contributes to delivering the targets of the 2030 Agenda for Sustainable Development on poverty, hunger, health, water, clean energy, climate action and sustainable cities.

[41] https://um.dk/en/danida/strategies-and-priorities/government-priorities-danish-development-assistance
[42] https://www.data4sdgs.org/news/new-analysis-shows-every-dollar-invested-data-systems-creates-average-32-economic-benefits
[43] https://www.oecd.org/dac/evaluation/daccriteriaforevaluatingdevelopmentassistance.htm

Also, EW4All is a vehicle to mobilize funds for disaster risk reduction and to address the loss and damage agenda.

Coherence: EW4All is fully coherent with SOFF and CREWS initiatives in the five target countries and provide the final element of the value chain of early warning. EW4All in the five target countries will leverage on various ongoing regional efforts and align with the African Union's Climate Change and Resilient Development Strategy and Action Plan (2022-2032) and the Integrated African Strategy on Meteorology (Weather and Climate Services) (2021-2030).

Implementation of the EW4All Action Plan for Africa will be supported across all pillars by a collective effort of international organizations, such as the Food and Agriculture Organization (FAO), International Organization for Migration (IOM), United Nations Development Programme (UNDP), United Nations Environment Programme (UNEP), World Food Programme (WFP), United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA), and other regional and international institutions.

Effectiveness: By leveraging on regional efforts and implementing a coherent, integrated approach, the EW4All initiative will be crucial in operationalizing effective multi-hazard early warning systems across Africa, protecting lives, property, and the environment from the increasing threats posed by climate change.

Also, the IPCC recognizes early warning systems, climate services and disaster risk management activities as key cross-cutting adaptation options, that enhance the benefits of other adaptation measures when combined.

Efficiency: Early warning systems are highly efficient and a proven, effective, and feasible climate adaptation measure that saves lives, reduces poverty and economic losses. Money invested in early warning systems is far less than the money that will be lost when disaster hits. Investment in early warning has been documented to have a return of investment of at least pay back of 32 times in socio-economic return.

Utilizing WMO’s many years of collaboration with NMHSs has established long-term trust and partnerships and makes implementation of EW4All highly efficient in delivering capacity development and services.

Impact: EW4All will ensure that everyone in the world will be covered by early warning systems. EW4All will enhance the capabilities of member states with forecast-based risk thresholds and triggers for anticipatory action and early response to minimize the impacts to prepare, mitigate and respond to disasters. When early warning systems are in place and operational lives will be saved, poverty reduced, and infrastructure investments protected. Early warning systems will also have positive impact on weather-sensitive sectors such as agriculture, fisheries, water resources, health, energy, various forms of transport and disaster risk management.

Sustainability: The sustainability mechanism of EW4All is that it uses local and indigenous knowledge in both data collection and in response.

A close working relation between NMHS’s and knowledge of excellence in Africa is multifaceted and facilitates sustainable data exchange and sharing of information. It also sets a system in place that cross fertilize capacity development across countries and encourage south-to-south transfer of knowledge. Moreover, this project has been strategically developed within the framework of the EW4All Action Plan for Africa, a comprehensive plan endorsed by regional governments and economic communities. The dedicated support from these regional stakeholders emphasizes the collective commitment to the project's success. Collaborative efforts are already in motion through established partnerships with designated WMO regional centres. These strategic alliances are designed to furnish the requisite support to the countries identified for project implementation.

In parallel, to ensure medium- to long-term sustainable measuring of success, WMO in collaboration with its partners and stakeholders will develop an objective Early Warnings for All Maturity Index. This Maturity Index will be an important contribution to the Global Goal on Adaptation. The index will be supported by an interactive monitoring, evaluation and learning that will support and enable additional investment initiatives, e.g. by the private sector.

2.10 Development partner finance to EW4All

EW4All receive support from a wide range of development partners[44] and the pillar leads have currently (November 2023) received commitment of at least USD135 million. Denmark's contribution constitutes about 4.2% of the total budget. Out of the total budget USD73 million is to pillar leads (Distribution between pillars: Pillar 1: 22%; Pillar 2: 32%; Pillar 3: 2.6 %; Pillar 4: 43%) and CREWS and SOFF USD62 million.

2.11 Addressing cross cutting issues

Gender-sensitive – women's empowerment is fundamental for building resilience, and gender influences the way people access, process, and respond to information and warnings. Therefore, WMO remains committed to achieving gender equality and building resilience through the provision of gender-sensitive weather, hydrological and climate services which respond to the specific needs and socioeconomic circumstances of women and men. Its updated Gender Action Plan focuses on gender equality, diversity and inclusion, with people-centered solutions serving all users[45].

EW4All realize the importance of applies a human rights-based approach (HRBA) and include a people-centered methodology that ensure that local organizations are listened to and engaged so that investments are co-produced and driven by the needs of the end-users. To ensure the success of EW4All, it is important to ensure inclusion of diverse civil society organizations. Their role in the initiative will be guided by the application of the Principles for Locally Led Adaptation directly applicable to early warning systems, namely:
Principle 1: Devolving decision making to the lowest appropriate level, by giving local institutions and communities more direct access to finance and decision-making power over how early warnings are defined, prioritized, designed, implemented; how progress is monitored; and how success is evaluated.
Principle 2: Addressing structural inequalities faced by women, youth, children, disabled, displaced, Indigenous Peoples and marginalized ethnic groups through meaningfully participate in the process.
Principle 3: Providing patient and predictable funding that can be accessed more easily.
Principle 5: Building a robust understanding of climate risk and uncertainty through a combination of local, traditional, Indigenous, generational and scientific knowledge.
This approach will also ensure that no-one is left behind.

3 Project Objective

The overall goal of the EW4All initiative is to ensure that every person on Earth is protected by early warning systems within five years (by 2027). Given the existing and ongoing programmes and processes related to early warning at the national and regional levels it is important to ensure that EW4All builds on these to maximize the efficiency and help ensure sustainability of past achievements and existing efforts.

[44] Austria, Belgium, Canada, Czech Republic, Finland, France, Iceland, Luxemburg, Monaco, Netherlands, Portugal, Spain, Sweden and the USA.

[45] The Action Plan guides the action of WMO: Resolution 39: **WMO Gender action plan for the nineteenth financial period**

A Multi-Hazard Early Warning System (MHEWS) is an integrated system which allows people to know that hazardous weather or climate events are on their way, and informs how governments, communities and individuals can act to minimize impacts. EW4All strengthens the full value chain of MHEWS by focusing on the four pillars of early warning: risk knowledge; technical monitoring and warning services; communication and dissemination of warnings; and community response capability, to build an effective people-centered early warning system.

The proposed Danish project will contribute to EW4All by supporting the immediate actions that are required to roll-out the EW4All integrated approach across the four pillars in five target LCDs in Africa. In addition, further contributions will be made to strengthen anticipatory action to hydrometeorological hazards in fragile, conflict, and violence-affected contexts (FCVs); to support overall global implementation of Pillar 1 of EW4All; and, to support the global level enabling environment and management of EW4All.

4 Theory of change and key assumptions

4.1 Project Outcome

The overall Theory of Change (ToC) for EW4All is that by establishing/strengthening the 4 pillars of early warning in every country, within a suitable enabling environment, the loss of life and economic and material impact of disasters or severe climate events will be significantly reduced.

In more detail there are 5 intended outcomes which together produce the desired impact, as follows:

Pillar 1: Risk Knowledge. All countries produce and use risk information that informs and strengthens Multi-Hazard Early Warning Systems, resulting in actionable and risk-informed warnings and targeted response.

Pillar 2: Technical Monitoring and Warning Services. Countries are able to monitor and forecast priority hazards as well as generate, disseminate and use impact-based, actionable early warnings to save lives, protect property and livelihoods.

Pillar 3: Communication and Dissemination of Warnings. All countries ensure that clear and understandable alerting messages reach all those at risk, allowing to take the necessary actions to save lives, livelihoods and to support longer-term resilience.

Pillar 4: Preparedness to Respond to Warnings. Countries are prepared to respond to warning at all levels leading to prevention or mitigation of the impacts of climate and water related hazards.

Enabling Environment: Clear institutional, policy and legislation frameworks are in place, there is effective coordination between relevant agencies and stakeholders; there is targeted communication, outreach and advocacy to promote the benefits of EWS at national and local level, plans for the development and implementation of EWS have been operationalized and a global mechanism is in place for monitoring countries' early warning capacity and initiating corrective action as necessary.

The full ToC for EW4All is presented at Annex 3.

A five-year Executive Action Plan and 18-month roll-out plan, including a framework of objectives, outcomes and indicators at the pillar and inter-pillar level, have been developed. These have been adapted to the African context through the Early Warnings for All Action Plan for Africa

4.2 Brief description of the support

The Danish support will follow the ToC outlined above while focusing on 5 countries in Africa that are in urgent need due to their vulnerability and current lack of capacity. It will also provide support at central (project management) level, to the enabling environment and to the overall management and inter-pillar coordination that is required to boost the reach and effectiveness of the initiative.

The four intervention areas supported by Denmark, are:

- **Roll-out the EW4All integrated approach across the four pillars in five African LDCs**

  Through the EW4All initiative, urgent needs identified through national consultative processes will be addressed in the five target countries Niger, Somalia, South Sudan, Tanzania and Uganda. Partners will take stock of existing capacities and gaps along the EWS value chain, as well as map out key stakeholders and existing initiatives that can be leveraged. The proposed approach provides technical support, normative guidelines, and capacity development to build national capacity to achieve end-to-end early warning systems that reach the last mile. There will be specific focus given to ensuring gender and conflict sensitive programming through employing gender analysis and where relevant conflict analysis to drive project decision-making.

  Country-level work will be conducted on the foundation of specialized normative guidance – including sectoral and thematic materials produced by key partners– that will be adapted to national contexts, needs and priorities. Additional tools include use of a checklist to ensure inclusion of people living with disabilities. All activities will be done as part of an integrated, cross-pillar approach under EW4All, with a focus on people-centered approaches that reach the local level.

- **Supporting early warning and early/anticipatory action in fragile, conflict, and violence affected contexts (FCVs)**

  Where national warning and response systems are overwhelmed, particularly in FCVs, direct international support may be required. Practical action will be guided by the WMO-UNDRR Centre of Excellence *Handbook on Early Warnings and Early Action in Fragile, Conflict, and Violence Affected Contexts*. This is part of the EWS4All efforts to make sure that nobody is left behind in the international drive towards Early Warnings. The first draft of the Handbook will be launched in the first quarter of 2024. This will be followed by operationalizing, piloting and rolling it out in selected countries to continue to gather learnings and insights for effective action in FCVs and will further inform the product as a living document. Danish support will be used to update and refine the Handbook using these lessons. The revised Handbook will then be used to orient action across other FCV contexts.

- **Climate science information for climate action**

  Driven by significant demand from countries, WMO is supporting the generation, interpretation, co-production and use of climate science information for climate action, recognizing the contribution and value of science-based decision-making in responding to climate change. WMO developed a methodology for Developing the Climate Science Information for Climate Action (WMO-No. 1287), data, tools and technical resources for enhancing the climate science basis for climate action policies, plans and investments. The aim is to support all countries, in particular developing countries to strengthen the design, delivery and uptake of climate and risk information services in various climate-sensitive sectors and identify and select the most effective climate actions to address climate impacts. In doing so, this work contributes to country-level decision-making, effective implementation, mobilization of climate finance, and an overall transformational climate action paradigm shift.

  The initiative is being implemented through institutional coordination support, technical advisory services, capacity development and partnerships. Priority activities include capacity development for transformational climate action; cross-sectoral climate impact, risk assessment and information services; authoritative and quality-controlled climate science information coordination and guidance; development of user interfaces; knowledge and services co-production; high-level policy engagement; and regional cooperation delivery mechanisms. Danish support will allow these activities to be extended to address topical issues that arise during the implementation of EWS4All in Africa.

These activities support global implementation of Pillar 1 and Pillar 2 of EW4All.

- **Global and regional coordination and support**

  While the bulk of activities will be carried out at the country level, delivery of EW4All in a well-coordinated and consistent manner requires certain global and regional capacities. This includes coordination, monitoring and evaluation, communications and knowledge exchange. Danish support will be used to enhance the management system and take advantage of any opportunities that may arise during implementation, for example activities that facilitate communication and south-to-south technical cooperation within Africa and between African partners and other regional and central centers of expertise.

4.3 Assumptions

The Theory of Change for the EW4All is founded on a series of core assumptions:

- ***Collaborative engagement**:* WMO, UNDRR, ITU and IFRC will work constructively with the 5 recipient countries, aligning efforts with their priorities and plans with local and indigenous knowledge. In return, the 5 recipient countries are expected to continue being receptive to and valuing WMO's services and support.
- the international community will target financial contributions in critical parts of the value cycle where deficiencies exist. In Africa, this requires scaling up of existing financial instruments
- The involvement, ownership, and active participation of African institutions and agencies, and member states national alerting authorities will be key to ensuring effective implementation.
- Political will and strong commitment to implement EWS4All in the 5 recipient countries in an equitable and inclusive manner.
- ***Stakeholder involvement**:* All key stakeholders, including local communities, governments, NGOs, and international organizations, will be engaged and cooperative in the EWS4All efforts.
- ***Adequate resources**:* Necessary financial, human, and technological resources can be effectively mobilized for activities in each of the 4 pillars of MEWS.
- ***Socio-cultural acceptance**:* It is presumed that the changes and contingency plans required for MEWS are compatible with local cultures.
- ***Sustainability:*** Plans will be embedded in government systems, address local priorities, and will be tested and updated regularly.

4.4 Results framework

For results-based management, learning and reporting purposes Denmark will base the actual support on progress attained in the implementation of the project as described in the documentation. Progress will be measured through the EW4All's monitoring framework focusing on the agreed outcome and the outputs described in the ToC (see above) and their associated indicators. The full results framework with indicators and targets is presented in Annex 3.

A concise version of the results framework showing the high-level indicators is presented below.
Concise Results framework for Early Warnings for All Danish Contribution

Project	Early Warnings for All: Danish Contribution
Project Objective	A world where every person is protected by life-saving early warning systems
Impact Indicator	# of deaths and missing persons attributed to disasters, per 100'000 (average)
Baseline	# of deaths and missing persons attributed to disasters, per 100'000 (average) prior to commencement of activities

Outcome 1		National Early Warning Systems in Place in 5 African LDCs	
Outcome indicator		National EW4All Roadmap in Place (four pillars and enabling environment meet minimum requirements of the maturity index)	
Baseline	Year	2024	TBD during the 3-month inception phase
Target	Year	2028	5

Outcome 2		Early warning and early/Anticipatory action in fragile, conflict, and violence affected contexts (FCVs) supported through updating and refinement of *Handbook on Early Warnings and Early Action in Fragile, Conflict, and Violence Affected Contexts*	
Outcome indicator		Handbook on EWEA in FCV Contexts piloted and finalized	
Baseline	Year	2024	First Draft launched
Target	Year	2028	Handbook version 2.0 published

Outcome 3		Climate science information for climate action: Regional capacity developed and strengthened in Africa for cross-sectoral climate impact, risk assessment and information services; transformational climate action; high-level policy engagement; development of user interfaces and knowledge and services co-production; and regional cooperation delivery mechanisms.	
Outcome indicator		# of sub-projects that facilitate the design, delivery and uptake of climate and risk information services	
Baseline	Year	2024	0 completed
Target	Year	2028	5 completed

Outcome 4		Effective global, regional and national coordination and support of EW4All: This includes coordination, monitoring and evaluation, communications and knowledge exchange.	
Outcome indicator		At least “Satisfactory” Assessment of management effectiveness at Annual Steering Committee Meeting	
Baseline	Year	2024	No evaluation
Target	Year	2028	4 positive evaluations

Annual targets will be developed at output level when annual work plans are prepared.

5 Budget

The total budget for Denmark's support to EW4All is DKK40 million. The budget is outlined at outcome level in the following table:

	DKK[46]	USD[47]

[46] The Danish support is committed in DKK
[47] Exchange rate: DKK1=USD 0.143

Strengthening national early warning systems[48]	27,000,000	3,861,000
Supporting anticipatory action in FCVs	3,500,000	500,500
Climate science information for climate action	2,400,000	343,200
Global coordination and support	2,000,000	286,000
WMO Program Support Costs (13%)	4,537,000	648,791
Mid-term review of Denmark's support to EW4All[49]	563,000	80,509
TOTAL	40,000,000	5,720,000

The annual budget at country level (budget line 1) shall be developed by country in more detail during the first 3-month Inception Phase and will be determined based on country work plans. The Inception Report shall be approved by the GDK/MFA and endorsed by the Africa EW4All Steering Committee. All target countries will be able to absorb the overall allocated budget. The more mature countries will be able to achieve a more comprehensive and advanced system of early warning within the same timeframe than the less mature countries. This will benefit the other target countries through twinning activities and cross fertilization of competence development and improved cross-country data sharing. The budget will be distributed accordingly.

If there is a need to reallocate funds between budget lines a proposal should be presented to the Danish MFA for approval. Spending in excess of the allocated budget (in DKK) cannot be covered by the Danish grant. Any reallocations to budget items for salaries and staff costs must be approved by the MFA.

The budget will be distributed from the WMO dedicated Trust Fund to implementing partners based on approved annual workplans, budget and on documented results achieved during the previous year of implementation.

The Danish grant must be spent solely on activities leading to the expected outcome and outputs as agreed between the parties and can be spent in countries eligible to development assistance according to OECD/DAC criteria.

Funds may be used for:

- Relevant WMO staff – based on appropriate documentation
- Partner organization staff at Pillar level – based on appropriate documentation
- Procurement of external support – e.g. consultants, consultant expects, researchers/academia, dedicated temporary staff etc. – applying WMO or implementing partner procurement guidelines
- Procurement of equipment and goods – applying WMO procurement guidelines
- Workshops
- Travel
- Publications and other expenses, etc.

Activities will be detailed as part of the 18-month rolling workplan. The first workplan will be submitted at the conclusion of the 3 months Inception Phase and include the budget at output level.

WMO will be responsible for ensuring that the funds are spent in compliance with the agreement and with due consideration to economy, efficiency and effectiveness in achieving the results intended.

[48] This will be distributed between countries and the four Pillars during implementation based on previous year's results.

[49] Budget reserved for the MFA to undertake the mid-term review

6 Institutional and Management arrangement

The United Nations Secretary-General has created an Early Warnings for All Governing Board, co-chaired by the Secretary-General of WMO and the United Nations Office for Disaster Risk Reduction (UNDRR). Board membership will include contributing development partners, including Denmark (optional), pillar lead agencies, selected implementing partners, and the United Nations Climate Action Team, representing the United Nations Secretary-General. The Board will meet twice annually throughout the implementation period and will monitor and report on progress against the achievement of the goal to the United Nations Secretary-General, against four parameters (1) political and policy advances, (2) scientific and technical development, (3) finance mobilization, and (4) assess progress in the global EWS Maturity levels.

The Board will ensure the continued strategic alignment of activities to maximize benefit and ongoing engagement with implementing bodies. Existing coordinating bodies such as REAP and the Alliance for Hydromet development plus the newly created WMO-UNDRR Center of Excellence for climate and disaster resilience will play important roles in supporting the Board.

At the political level, countries will continue to be engaged to advance EW4All through relevant upcoming platforms including the 2023 United Nations Water Conference, the Mid-term Review of the Sendai Framework, the SDG Summit, and future UN Climate Change Conferences.

In addition, a Steering Committee for Africa will be established and will include as members the AUC, all Pillars leads. The Steering Committee acts as a guiding force, providing vision, direction, and oversight to the Early Warning for All initiative, with the primary aim of enhancing early warning capabilities, reducing risks, and saving lives. Denmark is not anticipated to be a member of this steering committee, but may be invited to participate in a technical working group related to EW4All in Africa.

WMO is the lead implementing and executing entity for the Danish support to EW4All and will be responsible for overseeing the implementation, financial management, evaluation, reporting and closure of the activities under the project. WMO will monitor and supervise the execution of the project and ensure proper management, application, and use of funds by the implementing partners. WMOs international experience and presence through their WMO Regional Office for Africa, will coordinate with national authorities, especially NMHSs. The project will be jointly implemented with ITU, IFRC and UNDRR supporting the national and regional institutions of the target countries.

The Inception Phase will further detail how EW4All will be coordinated between the implementing partners and how EW4All will be coordinate with other EWS in the target countries to amplify benefits and avoid overlap of initiatives.

During the inception phase WMO will, guided by GDK, consult with the Danish representations (or those representations side-accredited to the target countries) about the Danish support to EW4All. The purpose of these consultations will be to explore and benefit from potential synergies with Danish engagements in the relevant countries. This will include introduction to Danish Meteorological Institutes Strategic Sector Cooperation initiative in Tanzania.

A Project Management Team (PMT) will be set up within WMO including representation from the Regional Office to ensure delivery on time, budget and with the expected quality results. The PMT will play an oversight role including a) Definition of roles, responsibilities and contributions of project stakeholders; b) Review of implementation progress; c) Management of project risks; c) Guidance and recommendations including

for developing synergies and leveraging opportunities with other initiatives in the countries and region, include ensuring alignment with relevant frameworks, strategies and priorities; and d) Alignment with the existing coordination bodies.

6.1 Monitoring and reporting

To ensure up-to-date and achievable target setting and work planning in each of the five partner countries, a baseline study will match activity level in each country with the available resources and absorption capacity.

The Inception Report must include a specific format for reporting to the Danish MFA that complies with the MFA's needs for monitoring implementation, risk monitoring and financial status. This will be done in close consultation with GDK. The Inception Report will be submitted to GDK for review and approval.

WMO shall be responsible for monitoring, review and evaluation of activities carried out as part of Denmark's support to EW4All.

A Monitoring and Evaluation plan shall be developed during the Inception Phase by WMO who will work with the partners to set measurable targets based on the indicators established as part of the results framework for Denmark's support, upon which the project performance can be measured and improved. The EW4All results framework is the primary tool for measuring progress towards the outcomes. Denmark's support to the EW4All has its own results frameworks that aligns to the EW4All Results Framework. In addition, an objective Early Warnings for All "Maturity Index" will be developed. The index will create a common understanding of the basic requirements of early warning systems and integrate the data covering the four elements and enabling environment. This would provide a useful integrated indicator of progress in each country as well as providing reliable information on capacity gaps and areas requiring targeted investments and technical support.

Reporting to WMO the implementing partners of EW4All will jointly conduct an internal bi-annual review of the progress, highlights, risks and take corrective actions, as required. These bi-annual reviews will be in accordance with WMO Monitoring and Evaluation System.

The annual results summary reporting will include specific reporting on progress of indicators and targets stipulated in the results framework for the Danish support and include reporting on how project implementation integrates "leaving no-one behind", gender and poverty focus, and SDGs.

A Danish led mid-term review should be initiated by the MFA/GDK program officer in charge no later than August 2025 and a mission to WMO HQ should carried out no later than November 2025 and also include a mission to at least one of the target countries as well as the regional office. The overall objective of the mid-term review will be to guide the remaining implementation period and to assess the possibilities and need for continued support to EW4All at the end of the project period. The mid-term review should, in a joint process with WMO, determine the needs for adjustments of the outputs and provide recommendations that can guide these possible changes to be finally confirmed and approved by MFA/GDK and presented to the EW4All Steering Committee for Africa. Should a joint overall review of EW4All be organized by contributing partners, Denmark may participate in that.

At the end of the project support WMO will prepare a project completion report to GDK for comments and approval as well as an externally audited financial report covering the entire period.

6.2 Knowledge Management and Learning

Knowledge and data generation, management, learning and dissemination is central to pertinent early warning systems and therefore at the core of EW4All. Knowledge generated and learning through EW4All at the

local, country and regional level, including generation of multi hazard information, will be shared across the regions. Coordination and accessibility of existing open-source geo-referenced risk tools and information systems will be part of this.

EW4All will work at target country level to establish Standard Operating Procedures and communication strategies for warning dissemination and to ensure that a regulatory approach is followed to ensure that geo-located early warnings and risk information reach in time populations at risk. EW4All will also develop capacity at country level to adapt The Common Alerting Protocol to disseminate warnings and to ensure information is accessible, understandable, and actionable by all, especially by the most vulnerable groups. Public-private partnerships will be pursued and strengthened to improve service delivery and strong coordination mechanisms will be established among alerting authorities, sectoral stakeholders, line ministries, private sector, and other stakeholders for effective and sustainable dissemination of warnings.

Some of the five target countries are more advanced on risk knowledge and early warning that others. EW4All will strengthen learning and best practices by cross fertilization of knowledge between the target countries and include valuable data sharing. The sustainable data exchange and information across the countries will be used to strengthen local, country and regional multi-hazard forecast, monitoring, analysis, and reporting systems (Sendai Target G Indicator G-2) for extreme weather events.

Improved access to knowledge and data on weather and climate information and knowledge will also be used to enable civil society and citizens to hold governments accountable for decision-making, investments and service provision in climate action, disaster risk reduction, and emergency responses. Knowledge co-production allows to co-explore user needs and requirements, including climatic and non-climatic data and information, such as socio-economic data, data for sensitive sectors (e.g., energy, water, agriculture, health, aviation, etc.) and vulnerability information for specific societal groups (e.g., youth, women, farmers, indigenous people, etc.). Co-production allows access to context-relevant experiences in responding and adapting to hazards and extreme weather events, facilitating engagement, feedback and learning mechanisms with the user community as well as the design, delivery and uptake of climate and EW information and services at a local level.

6.3 Communication plan

WMO has a strong web-portal where important news related to weather and climate is published on an almost daily basis. WMOs Cabinet Office of the Secretary-General is responsible for WMOs communication, with a clear communication strategy in place[50]. Communication specialists ensure that emerging opportunities for communication and visibility is utilized and include news from EW4All. WMOs communication goes beyond the web-portal and may also include e.g. sessions and side events at the UNFCCC Conferences of the Parties (COPs) where EW4All is also promoted.

Denmark will communicate results from EW4All whenever an opportunity arises. This will include communication of overall projects results and impacts through relevant units of the Danish MFA. Specific communication of relevant results of EW4All in the five target countries will be done on relevant Danish Embassy web-portals.

6.4 Anti-corruption measures

No offer, payment, consideration, or benefit of any kind, which could be regarded as an illegal or corrupt practice, shall be made, promised, sought or accepted - neither directly nor indirectly - as an inducement or reward in relation to activities funded under this agreement, incl. tendering, award, or execution of

[50] https://trello.com/b/aIf8BvHa/early-warnings-for-all-initiative

contracts. Any such practice will be grounds for the immediate cancellation of this agreement or parts of it, and for such additional action, civil and/or criminal, as may be appropriate. At the discretion of the Government of Denmark, a further consequence of any such practice can be the definite exclusion from any engagements funded by the Government of Denmark.

To ensure full transparency and openness in WMO governance and financing operations and to deter fraud and corruption, WMO relies on their transparency and accountability mechanisms established in WMO Basic Document 1, edition 2021. Suspected fraud and corruption in WMO-financed operations pertaining to Danish support, as well as allegations regarding misconduct of officials, employees, or consultants involved in the Danish financed support, will be reported to The Internal Oversight Office that is responsible for investigation of all allegations or presumptions of fraud, waste, mismanagement or misconduct and for conducting inspections of services and organizational units[51].

6.5 Special conditions

The Danish Ministry of Foreign Affairs, at its cost, shall have the right to carry out any technical or financial supervision mission that is considered necessary to monitor the implementation of the project. To facilitate the work of the person or persons instructed to carry out such monitoring missions, the WMO shall provide these persons with all relevant assistance, information, and documentation. After the termination of the project support the Danish MFA reserves the right to carry out evaluation in accordance with this article.

Representatives of the Auditor General of Denmark shall have the right to:

i) Carry out any audit or inspection considering necessary as regards the use of the Danish funds in question, based on all relevant documentation,

ii) Inspect accounts and records of suppliers and contractors relating to the performance of the contract, and to perform a complete audit in consultation with WMO in keeping with the single audit principle. WMO shall be obliged to provide all information in respect of the grant.

7 Financial Management, planning and reporting

Funds from Denmark can only be used to support activities outlined in this project document. WMO is the fiduciary owner of the account and to this end WMO have established a Working Capital Fund and under this a trust fund for the Danish contribution (considered “voluntary contribution”) which will be established consistent with the policies, aims and activities of the WMO and financial management following the Financial Regulations available in the WMO Basic Document 1 [52] The financial period shall be four years beginning on 1 January 2024 and thereafter every 1 January immediately following a session of Congress and ending on 31 December.

WMO can make provisions for appropriate modes of settlement of disputes arising out of contracts, in line with the Agreement on privileges and immunities of the United Nations. Financial management in WMO is guided by Financial Advisory Committee (FINAC) and overseen by the Audit and Oversight Committee.

The Contribution Agreement regarding the Danish funding for EW4All will be entered into between the Ministry of Foreign Affairs and the WMO. Financial management, accounting and reporting will follow WMO’s general procedures for accounting and reporting.

[51] Basic Document No 1 (WMO No 15) 2021 edition

[52] https://library.wmo.int/viewer/48992/download?file=15_2021_en.pdf&type=pdf&navigator=1

Denmark will require annual financial reports, and yearly externally audited financial statements from the WMO in line with the agreed outcome-based budget lines and activities carried out therewith in accordance with i) its own policies, guidelines, and procedures, and; ii) the applicable protocol established between WMO and Denmark, including the purpose for which the allocations of the funds have been approved. WMOs Secretary General will be accountable to the MFA of funders provided by Denmark to implement the project.

In the financial reporting WMO should specifically address that the Danish support is spent only on countries that are OECD-DAC eligible.

Procurement: Procurement will adhere to WMO's procurement policy[53] and protocol.

Auditing: WMO shall, upon completion of this project, provide Danish MFA with a final financial statement of account conforming to the budget and mentioning expenditures and income, as well as any possible interest income related to the whole project. The financial statement shall be certified by the WMO Chief of Finance. The financial statement shall be subject to internal and external auditing procedures laid down in the rules and regulations applicable to WMO. Any unspent funds and interest accrued are to be returned to the MFA.

8 Risk Management

8.1 WMO Risk Management System

The project will be implemented by WMO which will use its own risk management system. This system is compatible with the procedures for risk management set out in Denmark's AMG.

WMO uses a risk categorization methodology (Risk Catalogue) to enable appropriate risk assessment, monitoring and communication. The Risk Catalogue includes an inventory of risks structured under four main categories:

- Strategic Risks: These are related to the long-term goals and strategic objectives of the organization, aligned with and supporting the organization's mission and vision.
- Operational Risks: These are associated with the inability to fully implement or execute the Operating Plan
- Financial Risks: These are associated with inadequacies in financial resources and their management
- Compliance Risks: These associated with breaches of obligations leading to an inability to operate within WMO regulations, rules, ethics and standards of conduct; United Nations rules and agreement terms, and applicable law.

Having categorized the risk, project managers determine the likelihood and the impact of each risk and develop "treatment" (mitigation) measures as appropriate. The treatment (mitigation) actions are selected to be proportionate to the risk being managed and the most efficient way of reducing the residual risk in line with WMO's risk appetite for that particular risk sub-category. Each treatment measure has to indicate those accountable and responsible for approving and implementing the option(s). The next stage is implementing the response, which is managed and reviewed to ensure it is effective.

[53] https://wmo.int/procurement-and-contract-management

WMO operates and implements its program activities and projects within an overall risk appetite as low as reasonably practicable, so most risks are mitigated, with each mitigation measure indicated in a Risk and Control Matrix.

Mitigation can be directed at addressing either the causes or effects of the risks. The risk owner should describe how the chosen action(s) will be implemented so that arrangements are understood by those involved and effectiveness can be monitored. Any resources required for an action are included in the control matrix.

8.2 WMO Risk Analysis for EW4All

WMO has identified the following high-level risks for EWS4All.

Political/Institutional

The project assumes (i) an overall agreement of Member States in relying upon regional centers; and (ii) alignment of partners' work plans with the EW4All roadmap for Africa and national strategic plans of the contributing entities. This may not be achievable.

High Risk (high is defined as 61-90% likely to occur sometimes - has occurred infrequently).

Mitigation: Under this project, WMO will be providing guidance to NMHSs and Governments to support the strengthening of WMO regional centers (under CREWS regional projects); In addition, all partners will participate in the Project Steering Committee together with representatives from other regional and national institutions.

Financial / Resources

The project depends on resources allocated to early warning systems by international financial institutions and donors for investments in hardware and infrastructure. If the funds are not forthcoming in sufficient amounts, the project may be unable to meet its objectives.

Low Risk (low is defined as 10-30% Very unlikely to occur - not known to have occurred)

Mitigation: Not required. The processes are well advanced and the risk that these resources would not materialize is low. Funds have already been allocated by WB, AfDB, CREWS and SOFF, etc and many bilateral and private donors have pledged funds or expressed strong support.

Human Resources / Capacity

The project assumes availability of WMO, UNDRR and national entities' staff and experts to support various stages of implementation, which has resulted in some issues in other past projects. The human resources in the target countries' institutions are limited. As a result, there may be insufficient staff resources to implement the project causing delays.

Medium Risk

Mitigation: The project will support sufficient full-time staff spread between headquarters and regional/national offices in WMO and UNDRR and will establish partnership agreements with more developed NMHSs.

Technology

The technology available to the beneficiary countries is inadequate to implement the systems and information management required to operationalize EWS4All.

Medium Risk

Mitigation: The project will provide for specific design with careful attention to specific local (i) low Internet bandwidth and (ii) need for customizable solutions.

Social & Environment

Construction of operation of project infrastructure or facilities may adversely affect the social or physical environment.

Low Risk

Mitigation: not required. The project does not support civil works, nor the provision of large equipment, and will be implemented by consultants and existing staff in the partner institutions.

The overall risk rating for the project given by WMO is **Medium**. As part of risk mitigation, the project will continue to maintain close links with all partners and identify as required additional mitigation measures.

8.3 Risk Analysis from the Perspective of Denmark

The risks addressed by WMO cover all EW4All activities for the full duration of the program. Denmark's concerns go further in some areas because objectives may be broader, priorities and commitments in its development assistance political framework need to be considered and concerns of Danish stakeholders need to be reflected. The risk analysis approach set out in the AMG leads to the identification of key risks in three categories as follows.

Contextual Risks: Contextual risks are associated with global or national changes in the political or economic environment that may slow or restrict project implementation. Although it is likely that there will be disruptions due to unexpected events at some locations, or for some period of time, during project implementation, the project has a flexible structure and the ability to adjust the focus and size of interventions in response to circumstances, so these risks are assessed as minor.

As with all development programs there are risks from natural disasters or socio-economic shocks, such as the COVID-19 pandemic and climate change. These are addressed by flexibility and the ability of WMO to shift focus to different countries, pillars or implementation partners as necessary.

At country level a risk is that misalignment between beneficiaries and the EW4All strategies could affect the project support and an associated concern that lack of commitment and ownership by beneficiaries leads to a failure to implement policy advice. This corresponds to the political/institutional risk identified by WMO. This will be addressed by inclusion in decision making, emphasis on building institutional capacity among government counterparts to mitigate risks related to political leadership and political will for progress in taking forward the EWS agenda as well as the WMO's long-standing engagement and credibility within the region.

Programmatic Risks: At project level, the programmatic risks may be summarized as being that the assumptions underlying the objective of the project will not be realized. Successful implementation of the project is built on a number of assumptions around international and regional cooperation, sharing of information, availability of resources within partner countries and through international funding entities. A list of such risks is included in the full risk matrix (Annex 4). The EW4All management considers the residual impacts of these risks to be "low".

In the five selected target countries, country conditions and capacity, political and social instability, and political economy considerations may prevent or delay adoption of optimal solutions. The practical challenges and the scale of reform needed may exceed the technical and financial resources available; the distribution mechanism may not deal equitably with some groups (e.g. women, minorities or marginalized people), and at some point, along the distribution chain resources may be corruptly diverted or unfairly allocated.

The project design allows for transparency and a wide range of stakeholders to participate at each stage. Risk monitoring also allows stakeholders to identify any overlooked risks and to participate in developing effective risk mitigation strategies.

Institutional risks: The project could fail to deliver its outcome, which will reflect negatively on Denmark. Partners could engage in fraud, corruption or human rights violations under activities funded or facilitated by the project. Management of funds will be by UN Agencies using their own state-of-the-art management systems. Risk of corruption having a significant impact on implementation is low. The project takes place across a diverse range of countries and is likely to be successful in at least some of these. Risks are well managed and monitored, therefore, including provision for new risks that might arise as the project progresses. Some of the five target countries (especially South Sudan and Somalia) have unstable political contexts because of which various constraints on implementation may arise. Again, flexibility in implementation schedules will serve to mitigate these risks.

A summary of the key risks and proposed response from both perspectives is presented below and a detailed integrated risk analysis and risk response for contextual, programmatic and institutional risk factors in the form of a risk management matrix, (as required by AMG) is attached in Annex 4.

9 Closure

The Danish support toEW4All is limited to 4 years. And although the ambitions from the on-set have been that EW4All would be fully implemented by 2027, indications suggest that further support to EW4All will be required for the near future. A decision for Denmark to enter into a new support on EW4All will be decided at the end of the current support and will be conditioned on WMO's performance and achieving the current set of result targets.

Annexes

Annex 1: Context Analysis

1. Overall Development Challenges, Opportunities and Risks

The climate crisis is rapidly accelerating. The Sixth Assessment Report of the United Nations (UN) Intergovernmental Panel on Climate Change (IPCC) provides evidence of intensifying climate change across the globe and of the need to act with much greater urgency. Greenhouse gas emissions have been growing more rapidly than ever expected and the impacts are now visible everywhere, including record-breaking temperatures, and increased floods and wildfires. Indeed, according to the World Meteorological Organization (WMO) Atlas of Mortality and Economic Losses from Weather, Climate and Water Extremes, the number of disasters has increased by a factor of five over the past five decades, and economic losses have increased sevenfold with average daily losses of USD 383 million.

Only half of the world (52 %) is covered by an early warning system. This translates to 101 countries, which is an increase of six countries from last year. While this is a doubling since 2015, only 46% of LDCs and 39% of SIDS have reported the existence of MHEWS. Using a compounded score, based on country reports of their progress in meeting Target G of the Sendai Framework for Disaster Risk Reduction, the report finds that the global average score of MHEWS has improved from 0.33 at the baseline period starting in 2015 to 0.47 as at end-2022, an increase of over 40%. However, scores in Africa, which is home to many LDCs, remain low at 0.37 despite nearly doubling from 0.20. The lowest regional score is that of the Arab States at 0.35. Even where early warning systems exist, uneven progress is seen across the four MHEWS pillars: disaster risk knowledge, observations and forecasting, dissemination and communication, and preparedness to respond. The pillar on risk knowledge has seen the least progress with significantly low scores across all the regions, especially in the Arab States. The four MHEWS elements are highly interrelated; failure in one component, or a lack of coordination across the components, could lead to the failure of the whole system.

The increasing unpredictability, complexity and severity of hazardous events are challenging the MHEWS capability. Limited risk knowledge, as the first MHEWS pillar, hampers early warning effectiveness, which is further aggravated by gaps in the Global Basic Observations Network (GBON) across much of the African continent and parts of the Pacific and Latin America. Less than one third of World Meteorological Organization (WMO) members have the necessary monitoring and forecasting systems for multiple hazards occurring simultaneously or cumulatively over time. Despite advances in technology, especially connectivity, some communities remain hard to reach and support. Intensive action is required for community outreach and engagement. A people-centered, locally-led approach is required to effectively develop community early warning systems, to support anticipatory action in remote areas and to ensure that the design of MHEWS and related services meets local needs and preferences.

Several initiatives on MHEWS are under way to scale up early warning coverage and close the early warning–early action gap. Global efforts are ongoing to address the basic weather and climate observation data gaps, enhance capacities and build communities of practice on relevant topics. Encouraging progress has also been noted at the regional and national levels with several community- driven approaches being implemented. Advances in science and technology, together with the increase in the availability of observation data, have led to improvements in forecasts, especially lead times. The implementation of the Common Alerting Protocol (CAP) has helped the timely flow of information from authoritative sources to the public.

The launch of the Early Warnings for All (EW4All) initiative, with its vision to protect every human on Earth with an early warning system, has accelerated the momentum on MHEWS. To realize this ambitious vision, there is a clear need to scale up the level of investments in MHEWS.

Without large investments and technical support over a sustained period, it will be extremely difficult for a country to progress from having no early warning system to having a fully resourced and operational system capable of dealing with complex, cascading and compounding hazards. To guide global investments in MHEWS to where they are most needed, there is a need to map the investment flows, internationally and nationally.

The data ecosystem underlying MHEWS should be strengthened and expanded. Good data is the foundation of MHEWS and is essential for monitoring progress. Data needs to be quality assured, provided in standard formats, and georeferenced and disaggregated, where relevant. The increasing complexity of disasters demands a systematic tracking of hazardous events and disaster impacts – both to tailor MHEWS at local scales and to assess the efficacy of early warnings in building resilience.

While strengthening the technological base for MHEWS is important, "no-tech" and "low-tech" solutions should also be considered. Such solutions play an important part in reinforcing messages carried through other mediums, can overcome technology access limitations, and continue to function even if power and communication lines are down. The ever-increasing magnitude and impact of the climate emergency calls for greatly upscaling adaptation and disaster risk reduction

efforts. This in turn requires a strong policy basis for implementation, with greater synergies in planning processes across adaptation and risk reduction.

As called for by the EW4All Executive Action Plan, a comprehensive risk management approach is necessary to avoid fragmentation of efforts and resources. This should be further backed by the capacity development of nations and communities. Even where plans exist, they should not go untested. Simulation exercises provide opportunities to test all aspects of the early warning system, from roles and responsibilities, data flow and warning dissemination, to testing equipment and actions. The level of ambition behind the EW4All initiative requires leveraging global expertise and coordinating efforts across all countries, partners and funders. The adoption of a standard EW4All monitoring and evaluation framework, with commonly accepted metrics of MHEWS, will further enhance coordination in implementation.

The five target countries for Denmark's support to EW4All:

East Africa (From CREWS Project Strengthening Hydro-Meteorological and Early Warning Services in the East Africa Region: CREWS East Africa):
East Africa has a diverse terrain and climate with a wide range of vegetation landscapes, biodiversity and human occupations. There has been a substantial increase in climate and weather-related impacts which further exposes the region to a slew of natural hazards such as floods, droughts, landslides, severe weather events. For example, in 2020, East Africa recorded precipitation above the long-term 1981–2010 average, southern parts of Kenya and Lake Victoria, indicating a high spatial variability in that subregion (WMO, No 1275). These intense rainfall events occurred against a backdrop of "failed rainy seasons in East Africa which saw consecutive below average rainfall over the past few years. This indicates a shift towards increased variability in weather and climate conditions in the region. Furthermore, in 2020 extensive flooding affected many parts of East Africa, with Kenya being one of the worst affected countries where there were 285 deaths reported as a result1. Rapid urbanization continues to present challenges within East Africa, as the region is one of the most rapidly urbanizing countries in the world2. This continues to have a profound effect on the disaster risk profile within East African countries, given the growing concentration of people and assets in high-hazard areas.
Lake Victoria heavily influences the weather and climate conditions within the Region. It is bordered by Uganda, Kenya and Tanzania; however, it is part of a larger watershed region which includes Burundi and Rwanda. Lake Victoria generates its own micro-climate and is one of the most convectively active regions on Earth. It generates severe thunderstorms, which are an important weather hazard, with intense and often heavy rainfall, high and gusty winds, high waves, lightning and hailstorms, and waterspouts on the lake. These risks are particularly high for vulnerable groups including fisherfolk and inhabitants of the islands on the lake who rely on marine transport (there are an estimated 610,000 island inhabitants). For these groups, surveys find very high fatality rates and analysis indicates that more than one thousand people die each year from drowning in the lake, due to weather related hazards. In turn, these fatalities affect a large number of dependents. These adverse weather conditions also disrupt the navigation of larger transport vessels and occasionally lead to fatal accidents. These impacts are important, because of the planned expansion of water transport, as a new regional transport corridor to reduce the heavy burden on road transport.

The LVB supports approximately 25% of the surrounding population. It hosts Africa's largest inland fishery, producing about one million ton of fish annually, employing over 200,000 fisherfolk and generating over US$ 500 million annually in exports. Over 30 million people live near the shoreline, with 1,400 landing sites or beaches from which 50,000 boats operate. Lake Victoria and the surrounding area are subject to major weather-related shocks, leading to loss of life and major economic damages for shoreline communities. These impacts are projected to increase with climate change and there is a strong consensus for regional, operational warning systems to protect the safety of those exploiting the natural resources of the LVB.

At specific country level:
Uganda is exposed to a variety of natural hazards (droughts, flooding, landslides, heat waves). Flooding, particularly in low-lying areas of the country, presents the largest risk. Each year, floods impact nearly 50,000 people and over $62 million in GDP. Uganda experiences both flash floods and slow-onset floods, which are common in urban areas, low-lying areas, areas along riverbanks and swamplands5. Average temperatures in Uganda have increased by 1.3°C since the 1960s. Precipitation for the country is highly variable, but overall, Uganda has experienced a statistically significant reduction in annual as well as seasonal rainfall. Therefore, droughts have increased in Uganda over the past 60 years. Specifically, over the past 20 years, western, northern and north-eastern regions have experienced more frequent and longer-lasting drought conditions6. Droughts affected close to 2.4 million people between 2004 and 2013, and drought conditions in 2010 and 2011 caused an estimated loss and damage value of $1.2 billion, equivalent to 7.5% of Uganda's 2010. Agriculture, health, water resources, wetlands, and forests are the key sectors that are vulnerable to climate change in Uganda. Temperature rise and an increase in the frequency and intensity of extreme droughts and floods can reduce crop yields and cause a loss in livestock, which will have important implications for food security.

Tanzania is prone to risks from extreme weather events such as increased seasonal variation in rainfall and temperature, and frequent and prolonged droughts and floods9. Trend analysis results for the period 1961 – _2013 show a statistically significant increasing trend in mean annual maximum and minimum temperature throughout the country. Tanzania already

experienced frequent and severe droughts. The country has had six major droughts over the past 30 years. With projected changes in climate, an a larger proportion of the country's annual precipitation is anticipated to fall in heavy rainfall events. Tanzania's agriculture, livestock, human health, water, and ecosystems are vulnerable to climate changes. Increasingly unpredictable rainfall, shifting agro-ecological zones, and increased dry periods could reduce production of certain crops. Furthermore, changes in climate are also predicted to increase the prevalence of malaria, the leading cause of death in Tanzania. Water is another key sector that would be significantly affected by climate changes. Impacts are expected to include changes in runoff in river basins, leading to changes in downstream water availability and timing, amounts of water pollution, and disturbances of stream ecosystems.

South Sudan faces a number of hazard risks and including floods and drought. Flooding mainly occurs between July and September, when heavy rains fall in most parts of the country, leading to the flooding of the Nile River tributaries. During the flooding season, many parts of the country are left under water. Droughts are very common in South Sudan due to the hot and dry conditions experienced during the dry season14. The occurrence of floods and drought is a critical issue to the economy of South Sudan, given that approximately 80% of the total population, which is at estimated 11.2 million (2020) people, lives in rural areas and works in agriculture. Climate variability is likely to negatively impact agriculture, while projected increases in rainfall intensity may increase the risk of floods and the spread of waterborne diseases such as malaria and bilharzias15.

More information to be accessed in WMO CREWS documents.

Niger Information on Niger is limited, however, some information can be found in SOFF Readiness Funding Request: According to data from the WMO Global GBON Gap Analysis for Niger Republic report based on the January 2022 baseline and assessment, the following gaps were identified: 1. Upper-air data: Niger Republic requires a total of six (6) upper-air reporting stations to meet GBON standard density. However, only one station is currently generating and reporting upper-air observations. The establishment of five (5) Upper-Air stations is recommended to close this gap. 2. Niger Republic does not have any surface observing stations with GBON standard observations transmitting data through GTS or WIS2.0. A minimum of 32 stations would be required to meet the standard density of GBON network for the country and 127 stations would be needed for a high-density observation network. 3. In closing data gaps, issues of low manpower must be considered. Given the need to have data from the continent feeding into NWP models and regular weather prediction in the country, a SOFF intervention in any of the above-mentioned areas will greatly be good for Meteorology and hydrometeorology in Niger and indeed on the African continent.

Somalia Somalia has been devastated not only with the long-lasting civil war but also by hydrometeorological hazards including drought, floods, cyclones, and other climate-related disasters that have adversely affected the lives, property, and livelihoods of the Somali people for centuries and it's ranked among the most vulnerable countries in the world to climate change and has a low capacity to adapt to climate change because of its poor socioeconomic development. Observational data for the 1985-2018 period show that drought, floods, cyclones, and climate related diseases and epidemics, whose frequency, occurrence, and impacts have increased in recent years, already pose a significant risk to the country's vulnerable population. In recent decades, this has led to massive problems of food insecurity and population exodus from the worst-hit areas. In the time periods of 1961–1990 and 2002–2018, there were six severe flooding events along the Jubba and Shabelle Rivers. The major floods took place in the Deyr of 1961, Deyr of 1977, Gu of 1981, Deyr of 1997, Gu of 2005, and Deyr of 2006 and Gu of 2018. The floods of 1997/1998 and 2018 were the worst seen in the riverine areas in living memory. During the period between 1960 and 2018, the country has experienced several massive droughts. The droughts that occurred in 1973/1974, 1984, 1991, 2010/2011 and 2016/2017 were most intense and widespread. On top of that, over the past several years, drought has been occurring virtually once every two years in most parts of the country. It starts in some zones and slowly spreads to the rest of the country because of seasonal shifts and increased dryness. Cyclones also have particularly been active in Somalia in the past two decades as the country has experienced more than 5 major cyclones during the 2010s than in the 1980s, 1990s, or 2000s. In recent years, major storms such as Cyclone Gati in 2020, Cyclone Sagar in 2018 and Cyclonic Storm Pawan in December 2019 have killed dozens and displaced thousands across northern Somalia. The country's low level of socioeconomic development makes it extremely vulnerable to disaster, with several notable contributing factors. Decades of disasters have undermined the country's coping mechanisms and protective capacity; this increases the likelihood that hazards turn into disasters with large humanitarian and economic consequences. A considerable amount of the loss and damage could be avoided if the people to be affected are warned in advance. The absence of such a warning system using modern forecasting and dissemination systems is a major issue to be addressed in Somalia.

Hydrological and meteorological data collection and observation in Somalia started in the late 1894 by installation of first weather station in Kismayo. The hydrometric network expanded rapidly in the 1960s and 1970s. Before 1990, Somalia had one of the best meteorological monitoring systems in the region, when the civil war in Somalia intensified, the whole weather recording system collapsed and this saw the loss of valuable data and unfortunately, most equipment were rendered non- functional or destroyed. In 2002, FAO-SWALIM project in collaboration with some NGOs and UN agencies started

efforts to rehabilitation of non functional weather stations network and installation of new stations throughout Somalia. This has been a welcome initiative which will generate essential ground data to supplement satellite predictions. The network is still extremely sparse with no river level radar sensors and groundwater sensors functioning in the south. Since then, SWALIM has been reinstated and is the lead agency in collecting, processing and reporting of weather data including temperature, precipitation and weather forecasts. Currently, there are four types of hydrometeorological monitoring stations some of them are not functional including 13 automatic weather stations, 110 manual rain gauges, 9 synoptic stations. For the past 5 years, the FAO-SWALIM, IGADICPAC and USAID's FEWSNET initiatives have focused on improving regional forecasting for Somalia, making use of the rehabilitated network of monitoring stations in addition to stations abroad.

Somalia lacks a systematic and defined Early Warning System at the national level. EWS is included in most of the national disaster-related policies and relevant plans, although there is still lack of a long term strategic early warning system plan. Currently, FAO-SWALIM with its historical data is considered as the central entity for risk knowledge. Since the collapse of the government the risk monitoring and warning services are done by the donor-driven FEWSNET, FSNAU, FAO-SWALIM, IGPAC programs for drought, floods, cyclones and other climate-related diseases and epidemics.

A systematic network of Early Warning System does not exist in Somalia. In the current arrangements, MoHADM (Federal level), HADMA (Puntland) and NADFOR (Somaliland), Hydrometeorological Department under MoEWR, National Multi-Hazard Early Warning Center and Somali WASH Cluster are the main providers of early warning and climate information and are at the forefront of the risk reduction system in the country through provision of the required information and warnings are disseminated to the public through their websites and social media accounts and sometimes through mass media channels. However, responsibility for different elements of an effective EWS is divided between various institutions in Somalia as well as lacking technical and institutional capacity to disseminate timely early warnings and accurate hydrological information to enable the efficient and economic management of water resources. There is limited capacity to systematically access, process, and integrate remote sensing products into hydro-meteorological services and EW systems. It is obvious that a community based early warning system is much more effective than a system at the national level. Given that there is no systematic EWS and a clearly defined Standard Operation Procedure (SOP) for early warnings in Somalia, the issued warnings do not follow a previously defined communication way to reach to the communities at risk.

Overall, EWS in Somalia requires extensive attention and improvement. There is no doubt that the application of an early warning system is the most cost-effective and efficient measure for disaster prevention. The current setup for EWS faces numerous challenges that need to be addressed. The identified challenges are related to institutional arrangements, technical and technological capacity and financial resources. Each element of the EWS faces several specific challenges that are highlighted in the relevant sections.

WMO maintain additional information with data in several other documents with a variety of detail for most of the target countries.

List the key documentation and sources used for the analysis:

- WMO documents

Are additional studies/analytic work needed? How and when will it be done?

For each country receiving support through EW4All, a GBON gap analysis will be carried out to identify key policy, institutional and capacity gaps and constraints and identify the key entry points and priorities.

2. Political Economy and Stakeholder Analysis

The political economy context varies significantly between the five target countries and across the EW4All program in general; some countries are conflict-affected, others are institutionally and socially fragile, and yet others are stable. Similarly, government capacities and accountability vary significantly among countries, as do capacities of the private sector, and civil society.

The main beneficiaries and stakeholders of the EW4All are:

- Central government institutions: Role: User of early warning data, establishment of policy and institutional framework for MHEWS. Interest: Improve MHEW policies, plans and investments in early warning, disaster risk reduction, and emergency responses and disaster risk reduction. Influence: High, as key national decision-makers providing the policy and institutional framework and public financing for MHEW and has the power to share and not share data.
- National Meteorological and Hydrological Services (NHMS): Role: Collection of (GBON compliant) and processing of weather data. Interest: Improved collection and processing of weather data to deliver data and improved delivery of weather services and early warnings. Influence: High, as the direct responsible parties for weather data collection

and control over processed data and sharing of estimated early warnings.

- Local governments: Role: User of weather and early warning data. Interest: Improved action at the local level, plans and investments in climate change adaptation, early warning, disaster risk reduction, and organize emergency responses. Influence: High, in acting on early warnings.
- Private sector: Role: User of weather data, prediction of climate change and early warnings (potentially paying for some services), and/or supplier of equipment and as contractor in climate adaptation measures. Interest: Improved access to forecasts early warnings operation (e.g. fishermen); for investment and business decision-making, or business opportunities as services provider/supplier. Influence: Low, user of MHEWS, service provider.
- Civil society: Role: User of early warning data and as connector to first responders. Interest: Improved access to MHEWS forecasts for community-projects, advocacy and holding governments accountable. Influence: Medium, user early warning data and providing timely early warnings to first responders.
- Academia: Role: user of weather data, climate data and early warning date, education of meteorologists. Interest: Improved access to data for research and modelling, including early warning modelling. Influence: Low, user of data.
- Citizens: Role: User of weather forecasts and MHEW forecasts, advocate for improved early warning systems. Interest: Access to reliable and understandable early warning forecasts for better livelihoods and disaster risk reduction decision-making. Influence: Low, user of MHEWS, improvement of interpretation of data for better digest.
- EW4All Implementing Entities: Role: Implementing EW4All support at national/regional level through existing initiatives. Interest: Strengthened effectiveness and sustainability of their initiatives on early warning and disaster risk reduction, and planning for humanitarian action. Influence: High, through the planning and execution of EW4All support.
- EW4All peer advisors: Role: Technical assistance to beneficiary NHMS and Implementing Entities. Interest: transfer of knowledge and technical skills. Influence: medium, the provision of technical assistance can ensure the quality and appropriateness of the EW4All investment, provided it is taken on board.
- EW4All donors: Role: financing the EW4All, including the results-based financing system. Interest: enhancing the effectiveness of their investments in climate change adaptation, disaster risk reduction, and humanitarian action. Influence: high, through participation in EW4All decision making bodies.

List the key documentation and sources used for the analysis:

- WMO documentation

Are additional studies/analytic work needed? How and when will it be done?

GBON gap analysis (see section 1 of this annex).

3. Fragility, Conflict and Resilience

The EW4All is particular targets LDCs and SIDS, of which several are conflict-affected or others are institutionally and socially fragile. Specific analysis of fragility, conflicts and resilience will be carried out as part of the start-up phase.

Migration from LDCs and SIDS to seek opportunities for improved livelihoods and safety is significant, and expected to be further exacerbated as climate change increasingly impacts on livelihoods, food security, and resilience. Improved early warning of severe weather will improve people's livelihood. This will lead to enhanced resilience, which is expected to reduce the push to migrate. With these anticipated effects, the EW4All contributes significantly to the implementation of the humanitarian-development-peace nexus.

List the key documentation and sources used for the analysis:

-

Are additional studies/analytic work needed? How and when will it be done?

GBON gap analysis

4. Human Rights, Gender, Youth and applying a Human Rights Based Approach

Women, the poor, and vulnerable groups are particularly at risk to the impacts of climate change and extreme weather events. Hence, the EW4All contributes to gender equality and leaving non-one behind, as early warning will significantly improve livelihood and especially for women and children that are often the first to act on early warnings and the first to protect their family assets and secure their family's livelihood

Improved access to MHEWS will also contribute to enabling civil society and citizens as rights-holders to hold governments as duty-bearers accountable for decision-making, investments and service provision concerning climate action, disaster risk reduction, and emergency responses. It will also contribute to strengthening the ability of the duty bearers to provide appropriate and timely services in these areas.

WMO and other UN organizations making use of data and knowledge generated from EW4All embrace a human rights-based and gender-sensitive approaches and have strong social safeguards in place.

List the key documentation and sources used for the analysis:
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Are additional studies/analytic work needed? How and when will it be done?
GBON gap analysis (see section 1 of this annex).

5. Inclusive sustainable growth, climate change and environment

The project has a strong focus on climate change adaptation. Since the EW4All's investments are primarily related to capacity development in improved data collection and improved data interpretation the risk of negative effects on inclusive sustainable growth and environmental degradation is insignificant. Hence, environmental impact assessments are not foreseen. All envisaged Implementing Entities have established environmental safeguards policies and procedures established with.

As described above, the EW4All contributes to gender equality and leaving non-one behind, since women and vulnerable groups are particularly susceptible to the impacts of climate change.

Moreover, the availability of improved MHEWS will contribute to improved climate adaptation and faster response to loss and damage.

Are additional studies/analytic work needed? How and when will it be done?
GBON gap analysis (see section 1 of this annex).

6. Capacity of public sector, public financial management and corruption

The EW4All support to beneficiary countries will be delivered through existing initiatives, benefitting from their systems, procedures, and oversight. Peer advisors (e.g. DMI) will provide technical assistance, e.g. in relation to policy, technical solutions, and selection of appropriate meteorological equipment.

List the key documentation and sources used for the analysis:
- Standard WMO documentation

Are additional studies/analytic work needed? How and when will it be done?
GBON gap analysis (see section 1 of this annex).

7. Matching with Danish strengths and interests, engaging Danish actors and seeking synergies

The table below provides an overview of ongoing and planned initiatives related weather data supported by Denmark, outlining the potential for synergy and mapping the risk of duplication.

Programme	Partner	Countries	Weather data element	Synergy potential	Duplica-tion risk
SSC with a *(Under preparation)*	DMI	A Sub-Sahara African country *(probably Ghana)*	Strategic sector cooperation between the Danish and partner country meteorological services.	DMI is a SOFF peer advisor and will seek synergy between its SOFF and SSC engagements.	None
Core funding	NDF	Sub-Saharan Africa	NDF provides a large grant for SOFF, earmarked or Sub-Saharan Africa.	Opportunity for Nordic coordination on messages and priorities in SOFF Steering Committee.	None
Sahel Adaptive Social Protection Program (SASSP) – phase 2	World Bank	Burkina Faso, Chad, Mali, Mauritania, Niger	Early warning systems on natural hazards and food and nutrition insecurity.	The SOFF complements with better data for more accurate forecasting, climate information, and early warning.	None
Enhanced Adaptation for Smallholder Agriculture Programme (ASAP+)	IFAD	Burkina Faso, Mali	Provision of access to climate information services.	The SOFF complements with better data for more accurate forecasting, climate information, and early warning.	None

Regional Programme on Climate Security in the Western Sahel	UNDP (SOFF Implementing Entity)		Early warning on climate risks: a) enhancing access to information, b) regional seasonal forecasting forum for discussing and validating climate forecasting and the potential impacts.	The SOFF complements with better data for more accurate forecasting, climate information, and early warning. Could be used for delivery of SOFF support.	None
Scaling Up Anticipatory Actions for Climate Shocks in the Horn of Africa	WFP (SOFF Implementing Entity)	Djibouti, Ethiopia, Kenya, Uganda	Integration of new methodologies for drought forecasting, incl. impact-based forecasting, into national meteorological services' operational systems. Forecast-based financing for anticipatory actions.	The SOFF complements with better data for more accurate forecasting, climate information, and early warning. Could be used for delivery of SOFF support.	Low
Local Climate Adaptive Living (LoCAL) Facility *(Under preparation)*	UNCDF	21 African countries (incl. earmarked funding for Somalia, Uganda)	Grants for local adaptation investments based on vulnerability assessments. Decentralisation of climate risk and vulnerability assessments to local level.	The SOFF will contribute to filling a major gap: limited availability of local weather data.	Low
Core funding	UNEP (SOFF Implementing Entity)	Global	World Environment Situation Room: Global climate information on website, incl. links to other websites, incl. essential climate variables on WMO website.	The SOFF will complement with better weather data and information.	None

- Identify areas/sectors where we have the most at stake – interests and values.	Climate change adaptation and addressing loss and damages, incl. early warning and disaster risk reduction are key Danish priorities – the EW4All is intended to strengthening action in these areas with enhanced MHEWS.
- Identify where we can have influence through strategic use of positions of strengths, expertise and experiences.	Denmark can influence the EW4All through participation in the EW4All Board and in country steering committees. DMI's expertise will benefit EW4All delivery, as DMI will be peer advisor to one or more African countries.
- Identify where Denmark can play a role through active partnerships for a common aim/agenda or where is there a need for Denmark to take lead in pushing an agenda forward.	Nordic countries (incl. NDF, which Denmark co-finances) and EU Member States figure prominently among the EW4All-donors – there is thus scope for promoting shared Nordic and European priorities in the Board.
- Mapping of Danish foreign policy engagement, commercial engagement, trade relations and investment, Danish local and central authorities, civil society organizations, IFU and academia. Identify concrete opportunities for synergies.	DMI is a peer advisor to the WMO and will provide technical support to MFA and MCEU vis-à-vis the engagement in the Steering Committee and oversight of EW4All.
- Assessment of the donor landscape and coordination, and opportunities for Denmark to deliver results through partners including through multilaterals and EU.	Denmark and with several other EU Member States figure prominently among the EW4All contributing partners and prompt opportunities to pursue European priorities in the Board.
Are additional studies/analytic work needed? How and when will it be done? No additional studies or analytical work are required.	

Annex 2: Assessment of responsible implementing partner

Brief presentation of responsible implementing partner

In 1873 the International Meteorological Organization (IMO) was established and became WMO as a specialized agency of the United Nations in 1951, responding more effectively to the international nature of meteorology. Today WMO is the United Nations system's authoritative voice on the state and behavior of the Earth's atmosphere, its interaction with the land and oceans, the weather and climate it produces and the resulting distribution of water resources. WMO plays a leading role in international efforts to monitor and protect the climate and the environment and provides the framework for international cooperation for its 193 Member States and Territories.

WMO's mandate relates to the areas of meteorology (weather and climate), operational hydrology and related geophysical sciences. WMO has a powerful role in contributing to the safety and welfare of humanity by fostering collaboration between its Members' National Meteorological and Hydrological Services (NMHSs) and advancing the application of meteorology and hydrology in many societal and economic areas. WMO is also tasked to strengthen the provision of weather, climate and water-related services to reduce disaster risks and contribute to climate change adaptation.

WMO covers and executes operations in 6 regions through the WMO Regional Associations and the work of their subsidiary bodies with specific outputs and activities at the regional level. Africa is Region I. In Africa, in particular, WMO plays a central role in normative work and countries pursue WMO's certification.

WMO ensures the voices of the meteorological and hydrological community are heard in the global discourse responding to challenges such as climate change, early warning, disaster risk reduction and sustainable development. They do so by working through their WMO Liaison Offices with partners and key decision-makers to increase awareness of WMO's responsibilities and capabilities and to maximize opportunities to enhance the work of WMO further. The liaison offices act as an interface between WMO Members, Permanent Representatives of the WMO and other officials from their organizations, and relevant global and regional partners in their area.

The WMO has approx. 242[54] staff in a Secretariat with headquartered in Geneva, headed by the Secretary-General. The WMO Secretary-General is responsible for the overall technical and administrative work of the Secretariat with 6 departments.

The Cabinet Office of the Secretary-General includes responsibility of Monitoring, Evaluation, Risk and Planning Office (MERP) and Strategic Communication. The Service Department include responsibility of The Disaster Risk Reduction MHEWS Office and Public Services Branch has two Divisions: DRR Partner Engagement and Coordination and DRR Technical Development Division. The Project management and implementation Unit, responsible for implementation of the EW4All is hosted in the Member Service and Development Department that also leads the regional offices, including the Africa Regional Office hosted in Ethiopia.

[54] https://unsceb.org/hr-organization

Summary of partner capacity assessment

WMO is a neutral and independent authority and is considered to provide high level technical advice on weather/climate data gathering, analysis, modelling, and standards.

WMO is one of the smallest UN organizations, however, internationally recognized as *the* specialized global meteorological authority. The Danish support to EW4All is managed by WMO and implemented with specialists from UNDRR, ITU and IRCF and has a network of specialists to draw from between Members states Meteorological Agencies – including from DMI.

WMO is recognized as the competent professional capacity on normative work and to provide technical advice to develop observing and forecasting capacities, and expansion of early warning systems to cover additional hazards such as flooding (flash flooding, urban flooding, coastal flooding and riverine flooding), thunderstorms, sand and dust storms throughout member states, including the five focus countries for Denmark's support. WMO also leads international hydro-met processes and coordinate and has strong links to NMHS through their WMO Liaison Offices.

EW4All is one of the core flagship projects for WMO. The capacity of WMO to implement EW4All is demonstrated by the past two-year successful implementation of the EW4All program with a budget of some USD23 million.

MOPAN or other external organizational evaluation of WMO have not been available. Key performance indicators are assessed in WMOs internally conducted performance assessment reports, but these focus on the progress (by both WMO and WMO members) on the achievement WMO’s five long-term goals, with limited focus on overall performance of the authority.

Denmark has limited previous experience working with WMO.

Summary of key partner features

Name of Partner	Core business	Importance	Influence	Contribution	Capacity	Exit strategy
WMO	WMO is dedicated to international cooperation and coordination on the state and behavior of the Earth's atmosphere, its interaction with the land and oceans, the weather and climate it produces, and the resulting distribution of water resources.	High	High	Project management, delegation of tasks to implementing partners and provide overall reporting on progress of project support.	**Strength:** Neutral and independent technical authority on weather/climate data gathering, analysis, modelling, and standards. Leads international hydro-met processes and coordination. Strong links to NMHS. **Weaknesses:** Limited project management experience on projects at the size of EW4All. **Opportunities:** Generated highly qualified technical knowledge from the five focus countries that can be utilized across WMO network to access cutting edge knowledge and apply to other EW4All countries **Threats:** Competition over resources with the other EW4All implementing partners deviating the most optimal use of resources	No special requirements after end of project – WMO will continue to pursue objectives related to the project as part of its core mandate and build on project results

Annex 3: Results framework for Early Warnings for All Danish Contribution

Project/Program	Early Warnings for All: Danish Contribution
Project/Program Objective	A world where every person is protected by life-saving early warning systems
Impact Indicator	# of death and missing persons attributed to disasters, per 100'000 (average)
Baseline	# of death and missing persons attributed to disasters, per 100'000 (average) prior to commencement of activities

Outcome 1		National Early Warning Systems in Place in 5 African LDCs	
Outcome indicator		National EW4All Roadmap in place (four pillars and enabling environment meet minimum requirements of the maturity index)	
Baseline	Year	2024	TBD during the 3-month inception phase
Target	Year	2028	5

Intermediate Outcome 1.1		All countries produce and use risk information that informs and strengthens MHEWS, resulting in actionable and risk-informed warnings and targeted response	
Outcome indicator		Number of risk information systems established/ strengthened that make risk knowledge accessible at national- and local-level, and community knowledge, where applicable	
Baseline	Year	2024	0
Target	Year	2028	5

Intermediate Outcome 1.2		Empower countries to monitor and forecast priority hazards by improving their observational network, capacity on calibration of meteorological instruments as well as their capabilities to disseminate and use impact-based, actionable early warnings to save lives, protect property and livelihoods	
Outcome indicator		Number of countries reporting having multi-hazard monitoring and forecasting systems, including having geo-referenced systems for impact-based forecasting Number of countries that increased access to data and products from the global producing centers, implemented Regional Basic Observing Network (RBON) and Aircraft Meteorological Data Relay (AMDAR) to improve monitoring and observations Number of countries that integrated the use of AI/ML technology into their monitoring, forecasting, and dissemination of hazards and risk information Number of countries having linked their CAP Alerts to telecommunication networks (mobile, web and broadcast) Number of countries having a regulatory approach to geo-located warning services Number of countries that have improved the operationalization of CAP, including its connection to communication channels	
Baseline	Year	2024	0
Target	Year	2028	5

Intermediate Outcome 1.3		All countries ensure that clear and understandable alerting messages reach all those at risk, allowing to take the necessary actions to save lives, livelihoods and to support longer-term resilience	
Outcome indicator		Number of countries having integrated and automated multi-channel systems (digital communication channels, CAP, mobile, broadcast) to disseminate risk information. Number of countries having connected CAP to the network of national and community radio stations, including sectoral line Ministries internal communication channels Number of countries having APIs and systems in place to allow third party integration of their risk information and warnings	
Baseline	Year	2024	TBD during the 3-month inception phase
Target	Year	2028	5

Intermediate Outcome 1.4		Strengthened preparedness to respond at all levels leads to prevention or mitigation of the impacts of hazards and crises, including climate-related events.	
Outcome indicator		Percentage of local governments having a plan to act on early warnings Percentage of at-risk population protected through pre-emptive evacuation	
Baseline	Year	2024	TBD during the 3-month inception phase
Target	Year	2028	5

Intermediate Outcome 1.5		Enabling environment in place	
Outcome indicator		# of countries that have reviewed and integrated their crisis/disaster risk management and climate adaptation laws, policies and national frameworks Average country score for the adoption and implementation of national disaster risk strategies	
Baseline	Year	2024	TBD during the 3-month inception phase
Target	Year	2028	5

Outcome 2		Early warning and early/Anticipatory action in fragile, conflict, and violence affected contexts (FCVs) supported through updating and refinement of *Handbook on Early Warnings and Early Action in Fragile, Conflict, and Violence Affected Contexts*	
Outcome indicator		Handbook on EWEA in FCV Contexts piloted and finalized	
Baseline	Year	2024	First Draft launched
Target	Year	2028	Handbook version 2.0 published

Outcome 3	Climate science information for climate action: Regional capacity developed and strengthened in Africa for cross-sectoral climate impact, risk assessment and information services; transformational climate action; high-level policy engagement;

		development of user interfaces; knowledge and services co-production; and regional cooperation delivery mechanisms.	
Outcome indicator		# of sub-projects that facilitate the design, delivery and uptake of climate and risk information services	
Baseline	Year	2024	0 completed
Target	Year	2028	5 completed

Outcome 4		WMO provides effective global and regional coordination and support of EW4All: This includes coordination, monitoring and evaluation, communications and knowledge exchange.	
Outcome indicator		At least “Satisfactory” Assessment of management effectiveness at Annual Steering Committee Meeting	
Baseline	Year	2024	No evaluation
Target	Year	2028	4 positive evaluations

Annex 4: Risk Management

Risk Factor	Likelihood	Impact	Risk response	Residual risk	Background to assessment
Contextual Risks					
Political and regulatory framework conditions within one or several recipient countries change during the implementation period or necessary institutional changes are deprioritized reducing the potential scope and influence of the project. Partners' work plans may not align with the EW4All roadmap for Africa and national strategic plans of the contributing entities.	Not likely	Significant	The pace and scheduling of activities will take political stability and institutional risks into account. In addition, all partners will participate in the Project Steering Committee together with representatives from other regional and national institutions.	Minor	Under this project, WMO will be providing guidance to NMHSs and Governments to support the strengthening of WMO regional centers (under CREWS regional projects).
Global or widespread external economic dislocations or internal financial disruption (inflation, foreign debt, currency crisis etc.), affects not only the PICTS but the potential sources of funding	Likely	Major	A stepwise approach to implementation and a flexible management system plus the spread of operations across countries representing a diverse geographical and development context.	Minor	There may be disruptive external events, but the project is sufficiently diverse and flexible to respond appropriately.
Programmatic Risks					
Management systems developed by the support do not address the needs of the most vulnerable. There are three distinct dangers under this heading:	Unlikely	Major	The project design allows for transparency and a wide range of stakeholders to be consulted at each stage. Review also allows stakeholders to identify any deviation from good practice and to participate in developing effective corrective measures.	Significant	The type and severity of risk is highly variable, depending on country context. Transparency and effective monitoring and oversight (e.g. a dedicated section in the Annual Report) are essential.

i) The beneficiary states give undue attention to the priorities of politically influential groups and communities. ii) The plans and priorities to not sufficiently reflect the concerns and needs of some groups (e.g. women, minorities or marginalized people). iii) Mechanisms for warning and responding to risk neglect some groups of people.					
Increasing severity and unpredictability of climate impacts that undermines the project's outcome and casts doubt on the effectiveness of proposed activities	Unlikely	Major	Adaptive planning, ensure the project's flexibility to adjust to changing environmental conditions	Minor	Predictions of climate impacts are already understood to have wide error margins and the impacts responses being developed are likely to retain effectiveness within the medium-term
Insufficient funding becomes available from international sources to finance the plans and strategies drawn up by this project.	Likely	Major	The project itself is part of the effort to raise awareness of the need to allocate funding and the information it generates will strengthen the lobby for greater access to funds. Plans and policies will be developed to be of use to participating governments even in the absence of external funding.	Significant	The issue of MHEWS has become increasingly well understood and is a priority in COP 28. The EW4All provides an umbrella for the international community to target financial contributions in critical parts of the value cycle where deficiencies exist. In Africa, existing financial instruments include SOFF, CREWS, as well as support from partners including the African Development Bank, the European Union's development financing, the Green Climate Fund, the Adaptation Fund, the Global Environment Facility.
Capacity of the implementing institutions is insufficient to meet the needs of the beneficiary countries.	Unlikely	Major	The Danish (sub)project targets a limited number of countries (5) and provides funds to supplement existing staff spread between headquarters	Minor	The project assumes availability of WMO, UNDRR and national entities' staff and experts to support various stages of implementation, which has

			and regional/national offices in WMO and UNDRR and will establish partnership agreements with more developed NMHSs.		resulted in some issues in other past projects. The human resources in the target countries' institutions are limited.
The technology available to the beneficiary countries is inadequate to implement the systems and information management required to operationalize EWS4All.	Unlikely	Significant	Interventions will be designed in close cooperation with partner governments. Awareness of potential benefits, including quicker access to international funding, will be raised.	Minor	The case studies and support provided through this project are known to be of great interest to member states and have been designed to respond to their demand.
At country level a risk, misalignment between beneficiaries and the EW4All strategies could affect the project support and lack of commitment and ownership by beneficiaries leads to a failure to implement policy advice.	Unlikely	Major	This will be addressed by inclusion of national stakeholders in decision making, emphasis on developing institutional capacity among government counterparts, and fucus on "no-regrets" measures.	Minor	WMO has had long-standing engagement with chosen countries and has well established credibility.
Institutional risks					
The project could fail to deliver its outcome, which will reflect negatively on Denmark.	Unlikely	Minor	Denmark will carry out a mid-term review and review annual reports, including risk management.	Insignificant	The project takes place across a diverse range of countries and is likely to be successful in at least some of these. The intentions are worthy and the transfer of money to victims of disaster has little potential for unintended negative effects.
Partners could place insufficient emphasis on or disregard the concerns of marginalized or traditional communities under activities funded or facilitated by the project.	Unlikely	Minor	WMO has the capacity and experience to avoid this possibility and project supervision will safeguard against it.	Minor	The project includes measures to mitigate these risks, however, there remains at least some potential for exclusion of some marginalized groups.

Annex 5: Budget Details

A detailed budget will be prepared as part of the annual workplan to be submitted by WMO to GDK for endorsement.

The first output-based budget will be presented at the end of the inception period.

Annex 6: Important elements to the inception phase of Denmark's support to EW4All

WMO will undertake an inception of Denmark's support to EW4All during the first 3 months of 2024. The inception phase will primarily focus on startup of the support in each of the target countries and the initial implementation.

To ensure detailing of the results framework and to make the most appropriate monitoring and results reporting to Denmark, the Inception Report should in benefit of the Danish MFA/GDK include:

1. First annual workplan must include unfolding of outcomes into outputs with sufficient level of indicators that allow results reporting to Denmark
2. Prepare an output-based budget for each of the target countries and detail procedures to reallocate between outputs (and if relevant, between target countries)
3. Prepare a results-reporting standard that will comply with the Danish MFAs need for annual reporting on implementation of progress of Danish support. This should be done in consultation with GDK.
4. Describe how EW4All will be coordinated with other EWS in target countries and between the various implementing partners.
5. Danish representations in target countries (or those representations side-accredited to the target countries) should be duly informed about the WMOs support to EW4All in their respective target country. This will include introduction to Danish Meteorological Institutes Strategic Sector Cooperation initiative in Tanzania.

The Inception Report shall be review and approved by the Danish MFA and presented for endorsement in the Africa EW4All Steering Committee.

Annex 7: List of Supplementary Materials

- Denmark's support to the Global Shield Solutions Platform, Project Document, April 2023
- Sendai Framework for Disaster Risk Reduction 2015-2030 https://www.preventionweb.net/files/43291_sendaiframework-fordrren.pdf?_gl=1*9iiqkp*_ga*MTM0NDQzMjQ5OC4xNzAx-MTUzMTEz*_ga_D8G5WXP6YM*MTcwMTE1MzE1OC4xLjEuMTcwMTE1NDIzNy4wLjAuMA

The following background documents guide the action of WMO:

- EW4A Action Plan for Africa
- Resolution 2 (Cg-19) - WMO Strategic Plan 2024-2027
- Resolution 4 (Cg-19) - UN Early Warnings for All initiative
- Resolution 10 (Cg-19) - WMO Strategy for Service Delivery
- Development Projects : Nile Cooperation for Climate Resilience - P172848 (worldbank.org)
- Development Projects : One WASH—Consolidated Water Supply, Sanitation, and Hygiene Account Project (One WASH—CWA) - P167794 (worldbank.org)
- Development Projects : Somalia Crisis Recovery Project - P173315 (worldbank.org)
- Climate Services | Nile Basin Intitative (NBI)
- Multi-Hazard Early Warning Systems: A Checklist | World Meteorological Organization (wmo.int)
- Report on State of Climate, Peace and Security in the Horn of Africa - ICPAC
- Report on the installation of automatic weather stations in Somalia - ICPAC
- Weathering the Change: How to Improve Hydromet Services in Developing Countries | GFDRR
-
- Guidelines for the Assessment of Competencies for the Provision of Climate Services (WMO-1285)
- Capacity Development for Climate Services: Guidelines for National Meteorological and Hydrological Services (WMO-1247)
- Developing the Climate Science Information for Climate Action (WMO-No. 1287)

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Annex 8: Plan for Communication of Results

What? (the message)	When? (the timing)	How? (the mechanism)	Audience(s)	Responsible
Knowledge developed and lessons learned, sharing of best practices, cross fertilization of competence and capacity development	This is the core of the support and will be carried out throughout the project implementation period.	Pillar 2 and Pillar 3 of the project. In addition, in publications, international events and posted on EW4All webpages as well as on relevant governments webpages.	UNFCCC conference of parties; Government; NMHS and the general public	WMO and relevant targeted government authorities
Success stories emerging from EW4All of interest for Denmark	Whenever an opportunity arises and through participation in international events particularly in climate negotiations related to loss and damage	In publications and web-based communications.	To UNFCCC conference of parties; other development partners; international and national investors and the general public, academia, private sector enterprises	GDK/MFA and relevant Embassies
Development of key strategic messages to promote Denmark's support to EW4All endeavor on early warning and loss and damage	At the on-set of the commitment and at the disbursement of the first tranche of funds to WMO	Danish MFA communication webpages and at relevant Danish Embassies webpages in target countries	Danish taxpayers; other development partners and cooperation partners and decision makers in target countries.	GDK/MFA and the Danish Embassies in target countries

Annex 9: WMO EW4ALL Knowledge management abridged approach

Squirrels - Quick Wins (low cost, completed in less than 3 months): 	**1. Internal Community of Practice on #EW4ALL** • Share stories, challenges, lessons learned project implementation related to EW4ALL • Share stories on ***WIIFM*** (what's in it for me) related to EW4ALL • Stories coming from projects, not only HQ
	2. Grow pool of EW4ALL related experts: • Engage staff in the WMO secretariat through the WMO People Finder and WMO experts through the WMO CPDB to expand and continuously update their skills on EW4ALL, using the WMO Learning Zone
Bulls - Larger strategic projects (longer than 3 months): 	**1. Lessons Learned Workshops on EW4ALL:** • Engage practitioners from across WMO, as well as WMO experts and Members, to participate in a lessons learned workshop that gathers experiences, good practices, risks, failures and all types of lessons related to EW4ALL projects, including procurement, finance, HR and project practitioners.
	2. Expand the EW4ALL toolkit: • Using internal and external resources, expand the WMO toolkit on EW4ALL • Adapt it to all stakeholders and audiences, including focus on Community Engagement and Gender and Diversity.
	3. Facilitate a WMO Secretariat Early Earnings for All online Share Fair that: • Presents examples of projects dealing with EW4ALL • Puts the spotlight on Project Managers and project implementation • Highlights challenges and success stories • Presents the above resources
	4. Facilitate a WMO and external partners and experts Early Earnings for All online Share Fair that: • Presents examples of projects dealing with EW4ALL • Puts the spotlight on a variety of different stakeholders involved in EW4ALL • Highlights challenges, success stories and enables cross-pollination of EW4ALL lessons learned and good practices
	5. Metrics - Let's measure this! • Establish baseline for usage of resources (papers, guidelines) and experts, and track the use after the above activities • Baseline and track amount of risks and lessons learned identified and consulted for EW4ALL.

Annex 10: Process Action Plan for Implementation

Action/product	Deadlines	Responsible/involved units	Comment/status
Implementation			
Approval of Support	December, 2023	Minister/GDK	
Signing of Finance Agreement between WMO and MFA	December, 2023	WMO/GDK	
Transfer of first tranche of funds to EW4All	January, 2024	GDK	
Inception Phase of the project initiated (3 months)	January, 2024	WMO	
Inception Report with Workplan (2024) including detailed budget until end 2024 is submitted for endorsement	April, 2024	WMO	
Endorsement of Inception Report and annual workplan and budget	April 2024	GDK	
Technical review of Denmark support	November 2024	GDK	
Annual report submitted	January 2025 and January 2026	WMO	
Annual workplan (2025) prepared and endorsed	January 2025 and January 2026	WMO/GDK/Steering Committee	
Completion report submitted for approval	December 2027	WMO/GDK	

Annex 11: Quality Assurance Checklist

File number/Public 360 reference: 23/25552

Programme/Project name: Danish Support to Early Warning for All (EW4All)

Programme/Project period: 2024 - 2027

Budget: DKK 40 mio.

Presentation of quality assurance process: *The appraisal is based upon the draft project document, elaborated during December 2023, in close dialogue between WMO and GDK, Danish Ministry of Foreign Affairs. An external consultancy has prepared the written documentation, and there has been several working sessions between WMO and MoFA staff during the fairly short preparation period. The desk appraisal was carried out by an internal development specialist in GDK.*

- ❑ The design of the project has been appraised by someone independent who has not been involved in the development of the programme/project.
Comments: Correct, by development specialist Henning Nohr, GDK.

- ❑ The recommendations of the appraisal have been reflected upon in the final design of the programme/project.
Comments: Yes, the five recommendations from the desk appraisal have been integrated into the final project document.

- ❑ The project complies with Danida policies and Aid Management Guidelines, including the fundamental principles of Doing Development Differently.
Comments: Yes, the project is aligned with the AMG

- ❑ The project addresses relevant challenges and provides adequate responses.
Comments: Yes, the risk matrix is thoroughly looking into contextual, programmatic and institutional risks in accordance with the AMG risk assessment. Two risk are after mitigation action left with a significant risk profile and these is highlighted in the project document for further attention during implementation.

- ❑ Issues related to HRBA, LNOB, Gender, Youth, Climate Change, Green Growth and Environment have been addressed sufficiently in relation to content of the project.
Comments: Correct, these issues are well described and addressed in the project.

- ❑ Comments from the Danida Programme Committee (if applicable) have been addressed
Comments: n.a.

- ❑ The project outcome(s) are found to be sustainable and in line with the partner's development policies and strategies. Implementation modalities are well described and justified.
Comments: Correct, the Danish project is an integrated part of a global programme.

- ❑ The theory of change (if applicable), results framework, indicators and monitoring

framework of the programme/project provide an adequate basis for monitoring results and outcome.

Comments: Correct, though results on output level will not be available before after the 3 month's inception period, and they will need approval by GDK.

- The project is found sound budget-wise,

- The agreed budget and financial reporting procedures provide an adequate basis for financial monitoring of funds.

Comments: Agree, the WMO is an UN organization and will follow UN standard approaches to financial management and auditing

- The programme/project is found realistic in its time-schedule.

Comments: Yes, four years is an acceptable time period to initiate/improve existing early warning systems in the five African countries concerned. But building the in-depth capacity on early warning in concerned countries will take more time.

- Other donors involved in the same project have been consulted, and possible harmonised common procedures for funding and monitoring have been explored.

Comments: Yes, the Danish project is part of a global programme with several other international donors. WMO will coordinate the efforts.

- Key project stakeholders have been identified, the choice of partner has been justified and criteria for selection have been documented.

Comments: Yes, this is the assessment based upon the project documentation presented by WMO.

- The implementing partner(s) is/are found to have the capacity to properly manage, implement and report on the funds for the project and lines of management responsibility are clear.

Comments: Yes, WMO is already one of the key implementing partners for the EW4All initiative.

- Implementing partner(s) has/have been informed about Denmark's zero-tolerance policies towards (i) Anti-corruption; (ii) Child labour; (iii) Sexual exploitation, abuse and harassment (SEAH); and, (iv) Anti-terrorism.

Comments: *Correct, and will be referred to in the legal contract to be signed between WMO and MoFA for the financial support to the project.*

- Risks involved have been considered and risk management integrated in the programme/project document.

Comments: Correct, a thorough risk assessment is carried out as part of the preparation process.

In conclusion, the programme/project can be recommended for approval: **yes** / no

Date and signature of Desk Officer:_____ _____

Date and signature of Management:_____ _____