CREWS Project Presentation Note to the Steering Committee				
Project Title	Niger 2.0: Strengthening and Modernizing Early Warning Services			
Document Reference	CREWS/CProj/17/Niger Phase 2			
Geographic coverage	*Country project*			
Timeframe	4 years, April 2024 – March 2028			
Total CREWS Contribution	USD 3,886,020			
Total ACP-EU Contribution	USD 900,000 (Implemented by the World Bank)			
Total Project budget	**USD 4,700,020**			
Lead Implementing Partner	**World Bank**		**CREWS**	**ACP-EU**
	a. Execution		USD 1,638,200	USD 900,000
	b. Fees		USD 163,820	
	c. Monitoring and evaluation		USD 50,000	
	d. Total		USD 1,852,020	USD 900,000
Additional Implementing Partners	**WMO**			
	a. Execution		USD 1,200,000	
	b. Fees		USD 156,000	
	c. Total		USD 1,356,000	
	UNDRR			
	1. Execution		USD 600,000	
	2. Fees		USD 78,000	
	3. Total		USD 678,000	
Project Recipient/ Beneficiary	**Government of Niger:** The Ministry of humanitarian action and disaster management (MAH/GC), the civil protection general directorate (DGPC), the national hydrometeorological services (DMN, DGRE), the coordination service for early warning system (CC/SAP) and targeted municipalities.			
Additional Operational Partners	The project will promote areas of collaboration with ITU (International Telecommunication Union) to enhance the synergy with Telecom companies for Common alert protocol and the IFRC (International Federation of Red Cross) for co-production of warning services. Other agencies will have a technical advising role such as FAO (Food and Agriculture Organization for the United Nation), UNDP (United nation development program), WFP (World food program for the United Nations), regional centers such as ACMAD (African Center of Meteorological application and development) ABN (Autorité du Bassin du Niger), CBLT (Commission du Bassin du Lac Tchad), and the regional training center Niamey (EAMAC (Ecole d'application de la météorologie et l'aviation civile) & AGRHYMET (Regional Climate Center for West Africa and the Sahel).			
Main objectives	The resources requested for this second phase of Niger CREWS (2024-2026) will contribute to sustain the capacities of national institutions in delivering early warning through consolidating and scaling up outcomes of Niger phase 1 by implementing targeted actions following the recommendations of a diagnosis of HYDROMET services and early warning systems in Niger conducted under CREWS I, as well as regional collaboration and agro-met data exchange to benefit to 3.4 million people. They will notably support the development of local flood warning systems in the valleys of the Niger River (Niamey and Tillaberi regions), the Komadougou Yobé (Diffa region), the Goulbi Maradi (Maradi region) and the Kori de Telwa (Agadez region). More specifically, CREWS funding will complement the Early Warning System activities under the World Bank's **Niger integrated urban development and multi-sectoral resilience project** (PIDUREM-P175857), being implemented (2022-2028) and the WB **West Africa Food System Resilience Program** (FSRP-P172769). CREWS resources will support capacity development of stakeholders involved in floods and Food insecurity early warning (Agro- and hydro-met structures, civil protection, selected municipal councils, population in flash flood-prone areas).			
Initial state of play - project rationale	a. Vulnerability, exposure to risks, disasters impacts (on people and economy)	Given its mostly semi-arid climate, Niger faces multiple climate threats, most prominently recurrent droughts, and floods. According to a retrospective analysis of losses suffered over 40 years (1973-2013), it is estimated that on average more than 40 billion CFA francs (US$66 Million) are lost each year due to disasters. And since then, flood-related disasters have increased, with significant events occurring in 2015, 2017, 2019, 2020 and 2022 (World Bank Group, 2022[1];		

1 Pathways to sustainable growth in Niger: A world bank group country economic memorandum.

		https://www.desinventar.net). In 2020, for example, the impacts of floods resulted in almost 150 deaths, and more than USD 800 million in damages and losses suffered by the population (Niger-CNESI, 2021[2]). As the country is heavily dependent on agriculture, droughts also have a significant economic impact in Niger. The gross value of agricultural production was significantly reduced seven times by adverse events between 1991 and 2010 (Banque mondiale, 2013[3]). In some of these years, Niger experienced a 10-20 per cent drop in underlying production trends, resulting in losses of more than USD100 million. Drought is behind the most significant shocks, sometimes in combination with other climatic events. In addition to drought, Niger is also increasingly vulnerable to a variety of rapid-onset natural hazards such as locust infestation, flash floods, extreme wind and wildfires, hence an urgent need for real-time monitoring and short-term forecasting. However, credible risk information is still scarce and the potential impacts of these natural hazards on Nigerien social and economic systems are yet to be determined. The first phase of CREWS addressed a few challenges, particularly in terms of data production, the development of warning tools and the improvement of the early warning system, especially for floods and food crises. However, there are still major needs in terms of capacity-building for Hydromet system stakeholders and the modernization of data production and processing structures, which will require the formulation of a new commitment to help the country move forward in this area. Over 80% of Niger's population is employed in the agricultural sector, heavily relying on agriculture for food security and livelihoods. (MAE 2016). In the current climate conditions 45 thousand hectares of cropland are affected every year on average More than 60% of the national cultivable area is exposed to flood (UNDRR Niger Disaster Risk Profile 2022) .
	b. Status of the EWS, DRM institutions and NHMSs, actors / players present	The field of disaster risk reduction is very dynamic in Niger, in that numerous efforts are being made to align the country with international and regional frameworks and improve the national framework for risk and disaster management. Given the country's level of exposure and vulnerability to multiple hazards, several institutions have developed and adopted national policies, strategies, and plans to support this area. Many Specialized Technical Institutions are in place and play a key role in the field of risk and disaster management and reduction. **At the central and devolved structures levels**, the key disaster risk management institutions are (i) the Ministry of Humanitarian Action and Disaster Management (MAH/GC), which's missions are essentially humanitarian action and disaster management policies and strategies, as well as the coordination of the response and early recovery actions, (ii) the Ministry of the Interior and Decentralization (MI/D), also responsible for civil protection, whose mission is to organize, coordinate and monitor disaster risk reduction activities, and, (iii) the National Food Crisis Prevention and Management Mechanism (DNPGCA), under the Prime Minister's Office, whose mandate is to ensure the prevention, mitigation, management and early recovery from the impact of crises affecting the people of Niger. The DNPGCA is one of the first institutional disaster management mechanisms and has undergone several changes over the years. Its current structure comprises several committees and units, including the early warning system coordination unit (CC/SAP), the food crisis unit (CCA), and the social safety nets unit (CFS). It should be noted, however, that some sectoral ministries have yet started addressing risk management, as their responsibilities in this area are yet to be clearly defined. Niger is a pioneer in establishing Early Warning Systems (EWS) in West Africa as the first system was established in 1989 and has

2 Evaluation des dommages, des pertes et des besoins & stratégie de relèvement post-inondations 2020 au Niger, février 2021, rapport Cabinet du Premier Ministre

3 Agricultural Sector Risk Assessment in Niger: Moving from Crisis Response to Long-Term Risk Management. Washington, D.C

		constantly evolved since. The process has now culminated in the Early Warning System Coordination Unit (CC/SAP). This system focusses on early warning in food security and, since 2017, as a complement to the existing system, the CREWS initiative has been used to build the capacity of technical services in early warning of rapid-onset hydrometeorological hazards. To achieve its mission, the EWS has involved various services (Meteorology, Hydrology, civil protection) and relies on various existing information systems, such as the Agricultural Market Information System (SIMA), the Livestock Market Information System (SIMB), the Crop Forecasting and Estimation Survey (EPER), and the Interdisciplinary Working Group (GTI). It is based on the target indicators for monitoring the situation, i.e., the rainfall situation, crop monitoring, the pastoral situation, secondary (non-agricultural) sources of income, the state of cereal, livestock, and consumer markets, the health and nutrition situation, warning signs, adjustment capacities, and the previous year's diagnosis (index). The process of monitoring food security, nutrition and disaster management situation is based on the targeting of vulnerable areas, most at risk populations, and permanent monitoring of specific areas. **At the local/decentralized level**, vulnerability monitoring observatories (OSVs) have been established under the responsibility of the chairmen of municipal councils, and at the village level, while Community Early Warning and Emergency Response systems (SCAP/RU) have been established under the supervision of local authorities. These two bodies provide relevant support to the early warning system coordination unit at the local level and have been supported and reinforced through the CREWS 1.0.
	c. Projects and programs dealing with EWS and hydromet under implementation or preparation	There are a number of ongoing projects and programs addressing various aspects of climate and disaster risks that will be capitalized by the proposed Project. Major ongoing projects are described below: **(A) At the national level:** 1. The World Bank (WB) **Niger Integrated Urban Development and Multi-sectoral Resilience Project** (P175857) is providing institutional strengthening for Flood Risk Reduction and emergency preparedness and response to natural hazards such as flooding and drought at the national and local Level, including Hydromet Services. 2. The **design and Implementation of Climate Services for Adaptation to Climate Change (CSA/CC)** implemented By the World Food Program (WFP) aim to : (i) strengthening the meteorological observation network, (ii) capacity building on the use of the SPIEA rain gauge, (iii) raising awareness on the results of seasonal forecasting, variability and climate change, (iv) supporting the development and dissemination of agrometeorological products and (v) revitalizing the National Framework for Climate Services (CNSC) through the production of thematic bulletins. MAP 2020-2024. 3. The WISER AFRICA supported by the United Kingdom for **training to rural producers and community radio presenters in Niger on the accessibility and use of weather and climate information services for decision-making in the planning of agropastoral campaign activities**, United Kingdom Met Office/WISER Africa. **(B) At the regional level:** 4. The WB **West Africa Food System Resilience Program /FSRP** (P172769) is improving national capacity and regional collaboration to upgrade the Food crisis prevention and monitoring system through better Hydromet and Agromet services to farmers. In line with the overall FSRP program, Niger's interventions include activities at the national level designed to respond to food insecurity crisis as well as medium- and longer-term investments to build the resilience of the food system. 5. The Niger Basin Authority's **Integrated Program for Development and Adaptation to Climate Change in the Basin of Niger (PIDACC/BN)** funded by

		African development Bank (AfDB) which aims to (i) preserve the Basin's ecosystems, particularly by reducing the Niger River silting process; and (ii) strengthen the resilience of production systems and the population. The program will focus on improving the socio-economic status of women and young people, and their access to resources, which is a critical factor for eliminating poverty and infant malnutrition. The **regional project on Integrated Water Resources Management and Early Warning Systems for Climate Change Resilience in the Lake Chad Basin** (IWRM&EWS/CCR/LCB, Cameroon, Central Africa, Chad, Niger and Nigeria) which aim to support Disaster Risk Reduction and Early Warning System funded and implemented by World Meteorological Organisation 6. **Strengthening capacities for disaster risk reduction and adaptation for resilience in the Sahel region: fostering risk-informed solutions for sustainable development** (UNDP lead, UNDRR implementing partner) UNDRR plans to provide trainings on disaster statistics, support the review of existing protocols on hazard, vulnerability and risk assessment, identification of best practice to establish the MHEWAS, and improve DRR and CCA financing mechanisms through a budget tagging process. 7. UNDRR in February 2024 closed a project "Building Disasters and Climate Resilience in Central Sahel". UNDRR developed a Niger Disaster Risk Profile on drought and flood. The profile was designed to inform the early warning, food security and development policies. A set of risk indicators were developed. These reflect the needs for relevant exposure layers and related risk indicators for early warning and early action in the disaster risk management domain and specifically in the early warning domain. 8. In addition, several international organizations (WMO, ACMAD, CILSS/AGRHYMET, etc.) and of advanced hydromet services and academic institutions (Météo-France, IRD, NOAA, IRI) also provide training at various levels of competency.
	d. Describe the multiplier /leveraging potential of the CREWS investments	The second phase of the CREWS project in Niger would provide additional funding on top of those provided by PIDUREM, FSRP, PIDACC, **CSA/CC)** i.e. more than USD 275 million aimed at institutional strengthening for risks reduction, food crises prevention, emergency preparedness and response at national and local levels, including agro- and hydromet services by upgrading basic observation capacities, forecasting of extreme meteorological and hydrological events, impact forecasting and assessment, service delivery and emergency response capacity in Niger. More specifically, CREWS support would broaden the scope of ongoing projects by helping to develop the capacity of stakeholders involved in early warning (HYDROMET Structures, including Agrhymet CCR-AOS, MAH/GC, Civil Protection, and targeted communities at risk) in line with the concept of the National Framework for Climate Services and based on detailed requirements and feedback from user groups. It would involve key players such as the World Bank, WMO, UNDRR, UNDP, FAO, WFP who all support operations with an EWS component. However, to achieve the objective, it is essential that the government and donors act in a coordinated way to maximize opportunities and create synergies between activities. It is important to note that the operations listed above are intended to contribute to the development not only of adaptation capacities, but also of initiatives to strengthen the data collection network and improve the hydrometeorological information and warning systems, the functionality of which needs to be improved through the new CREWS. It will be important for donors to coordinate throughout the project cycle to ensure that local EWS are developed and made operational for the benefit of people in the target areas.
	e. Describe measures to ensure coherence with	The project will set up a consultation and planning mechanism under the aegis of the secretariat of the High-Level Advisory Council on Disaster Risk Management (CSO/GRC) established under article 39 of Law 2022-61. This mechanism will be operationalized through regular quarterly meetings to

	existing initiatives	harmonize planning, synchronize the implementation of actions, and clarify responsibilities for monitoring implementation. This mechanism will involve the PIUs of the key projects to be identified and involved by the CSO/GRC secretariat.
Project design	a. Project components and activities	Niger CREWS 1.0 (https://www.crews-initiative.org/en/projects/niger-strengthening-early-warning-services), has made significant contributions to (i) strengthening the capacity of the national HYDROMET agencies to produce and disseminate regular information bulletins, in particular the ten-days bulletins produced by the national hydrology agency with their impact on the population living along the Niger River, its tributaries and the Komadougou Yobé River, the daily and weekly meteorological bulletins produced by national directorate for meteorology (NDM), (ii) the setting up and operationalization of the national mechanism for early warning and crisis response (COVACC) dedicated to crisis management for people and central and local authorities, with an alert code that organizes its operation, (iii) the creation of added value through the involvement of gender and people-centered actions, (iv) the production of strategic and modernization plans for HYDROMET services and SAP system and (v) the establishment of a platform dedicated to risk management (www.risques-niger.ne). These achievements will be consolidated by Niger-CREWS 2.0 and reinforced by other actions identified under two components below with the aim of modernizing HYDROMET services, making the EWS more efficient and developing national databases harmonized with regional platforms for data exchange, capable to supporting the development of resilience standards for the implementation of structuring investments. The main outputs by component are described as below: **Component A:** Strengthened institutional and regulatory frameworks and mechanisms and improved capacities to support risk governance **(CREWS USD 2,30M/ ACP-EU USD 0,11M)**: (i) Support for institutional strengthening, policies and strategies to improve coordination and consultation for the disaster risk management sector, (ii) Support for strengthening coordination, consultation and mainstream DRR/DRM into national and priority sector policies and investment planning in the country in the disaster risk management sector, (iii)Training in emergency preparedness and response to floods, drought and heat waves and, (iv) Improving urban and peri-urban resilience mechanisms against flood, drought and heat risk assessment in the targeted cities in the country. **Component B:** Enhanced delivery of basic early warning services with products co-developed with specific end-users. **(CREWS : USD 1,15M/ ACP-EU : USD 0,79M)**: (i) Development of supporting tools to strengthen the technical capacities of stakeholders and improve the early warning system, (ii) Improving the effectiveness of the early warning systems for emergencies by developing hydrometeorological forecasting tools and equipment to improve floods and food crises response and, (iii) raising awareness and strengthening community involvement, including the establishment of inclusive local committees (including OSVs and SCAP/Rus for food security monitoring, flood vigilance committees and other types of community organizations) with the active participation and leadership of women. The detailed activities are described below by component and output. The lead implementation structure is also identified in the line to strengthen the coordination inter and extra actors.
	b. Work plan	See attachments 1, 2 and 3

Organization and operating procedures	a. Institutional framework	The new CREWS funding will be implemented by the World Bank (Lead IP – USD 1,802,020), WMO (USD 1,320,000) and UNDRR (USD 678,000). The ACP-EU Disaster Risk Management (DRM) Program will co-finance USD 900,000 to support the project implemented by the World Bank. The project will receive support from the ACP-EU DRM Program, Component 4: Early warning systems are operational in targeted ACP regions and countries, aligned with the CREWS Initiative. The activities will focus on delivering more accurate, timely, and user-friendly impact-based forecasting and early warning products. This includes strengthening capacity at national and sub-national levels for multi-hazard early warning systems. Specific activities include providing technical assistance to meteorological and disaster risk management agencies, promoting the use of technology for early warning systems and data exchange, supporting the integration of early warning procedures in disaster response plans, mainstreaming gender and disability considerations while designing awareness campaigns for the general public. The project is further aligned with the EU's Multiannual Indicative Programme 2021-2027 for Niger, Priority Area 1, on the improvement of preparation and management of climate shocks. At the national level, the secretariat of the High-Level Advisory Council on Disaster Risk Management (Conseil supérieur d'orientation sur la gestion des risques de catastrophes), set up under Article 41 of Law N°2022-61 and attached to the MAH/GC, will be responsible for overseeing the implementation of the project, including the approval of work program and budgets relating to the project.
	b. Monitoring and evaluation system	The continuous monitoring of the project and its achievements will be the responsibility of the World Bank in coordination with the WMO and the UNDRR in coordination with the secretariat of the **High-Level Advisory Council on Disaster Risk Management**. It will be developed in collaboration with the steering committees of the PIDUREM and FSRP projects. The monitoring and evaluation system will be a results-based framework, designed as a management tool, focusing on project impacts and outcomes, as well as regular monitoring of inputs and outputs. In the interests of transparency, part of this database will also be available on the project website to share information with the public on a regular basis, and this information will be shared with communities by dedicated communications teams. Monitoring and evaluation: Continuous and robust monitoring and evaluation mechanisms to track progress and the impact of the project, will help identify synergies, assess effectiveness and make necessary adjustments to the project plan to ensure coherence and avoid duplication of efforts. Monitoring and Evaluation of the project will strongly rely and be aligned on the CREWS Monitoring, Evaluation, Accountability and Learning Framework. The implementing partners will jointly conduct an internal bi-annual review of the progress, highlights, and risks and take corrective actions, as required. These bi-annual reviews will be in accordance with CREWS Monitoring and Evaluation System and the outcomes will be recorded within official reports published by the CREWS Secretariat. In addition to the bi-annual reviews, formal project reviews will take place including an external evaluation, conducted mid-way through the project timeline, and at the end of the project to examine the projects performance and provide guidance as necessary. These evaluations will include review of outputs, risks and progress achieved.

Project viability and sustainability	a. Main identified risks	The main project risks are related to the instability of the operating environment and weak capacity of the institutions. The World Bank is collaborating with other UN agencies and bilateral partners to closely monitor the security situation in Niger and liaising with the IMF on the PRSC program to monitor impact of country investments. Political and macroeconomic risk are also high. Following the events of July 26, 2023, the World Bank triggered its Operational Policy 7.30 (OP 7.30) for de facto governments. However, as part of the World Bank's re-engagement policy with the new authorities of the country, an assessment mission of OP 7.30 occurred in Niamey to evaluate OP 7.30 regarding de facto governments, with its main objective being to determine if the conditions are met for the resumption of project implementation and the approval of new operations. During the mission, consultations were conducted with key stakeholders in the country, including the government, technical and financial partners, the private sector, and civil society. In response to recent diplomatic progress and improved conditions in Niger, the Economic Community of West African States (ECOWAS) has decided to lift sanctions imposed on the country. This significant decision reflects a tangible step towards resolving regional tensions and fostering diplomatic relations within the ECOWAS member states. In order to reduce project complexity, the project will draw on lessons learnt from several projects in Niger and draw as much as possible from experience and structure of existing government institutions. The project will collaborate and coordinate with active projects to avoid duplication and overlap and capitalize on experiences of closed projects in Niger. The Project will fund technical assistance and training for identified gaps in knowledge and practices related to the project's objectives. The overall risk to achieving the PDO is assessed as Substantial.
	b. Critical assumptions	The project has been prepared on the assumption that the basic services developed and/or strengthened during the first phase of CREWS will be reinforced at national level (seasonal and daily forecasts, ten-day agrometeorological reports, etc.). More specialized services (such as flood forecasting systems, customized agrometeorological information services, early warning reports to anticipate impacts, etc.) will be provided to selected areas that will be identified on the basis of the following criteria: (i) presence of specific hydrometeorological natural hazards; (ii) exposure of populations and critical infrastructures (urban areas, road dams, irrigation, transport, hospitals, schools, etc.); and (iii) likelihood of natural disasters, and (iii) the presence of investment projects that would enable hydrometeorological services to be strengthened and used optimally (particularly for urban dwellers, farmers, livestock breeders, fishermen, hydroelectric power producers, aviation and other transport-related sectors, the extractive industries, local government, micro-insurance and town planners).
	c. Judgment on the project sustainability	The investment is institutionally sustainable, economically viable and technically feasible, and has strong social, environmental, and economic co-benefits. Institutional sustainability will be based on building a sense of ownership at the level of national institutions. Technical sustainability will be ensured by putting in place mechanisms to deliver most services at municipal and field level. The project will support capacity building activities at national and local institutional levels to facilitate ownership. The investment is economically sustainable. The estimated value of damage and economic losses from the flood in 2020 was approximately USD770 million. The project will help mitigate the impact of future natural disasters and increase Niger's overall resilience. The expected benefits of improved hydrometric and DRM capacity and social responsibility are likely to be significant in terms of meeting local

		needs, improved governance, and management efficiency. Additionally, there is substantial potential for scaling up these activities, which could further enhance their impact and ensure that broader regions and larger populations benefit from the improved disaster risk management and resilience measures.

Attachment 1: Activities per IP and Budget Breakdown (USD):

Activity by component and output	Total amount CREWS (US$)	CREWS			ACP-EU
		WBG/GFDRR (USD)	WMO (USD)	UNDRR (USD)	WBG
Component A: Strengthened institutional and regulatory frameworks and mechanisms and improved capacities to support risk governance	**2,714,000**	**1,179,000**	**1,015,000**	**520,000**	**105,000**
I. Output1: Support for institutional strengthening, policies, and strategies to improve coordination and consultation for the disaster risk management sector	**792,500**	**349,000**	**333,500**	**110,000**	**0**
	307,500	24,000	223,500	60,000	0
a. Develop/review the training plans for the technical staff of HYDROMET services	69,500		69,500		
b Review the operation and maintenance of all observation equipment and support systems (e.g. communications networks).	48,000	24,000	24,000		
c. Identify performance measures in accordance with ISO standards for service delivery and appoint a quality manager for NMD	27,000		27,000		
d. Update and hosting the National Meteorology Directorate (NMD) website	103,000		103,000		
e. Support national authorities (i.e. HYDROMET, NMD, OSV/SCAPRU) to understand and use the Niger National Risk Profile in decision-making for impact-based EW and disaster risk reduction				60,000	
	485,000	325,000	110,000	50,000	0
a. Provide technical assistance to develop and adopt local climate data sets and tools for use in flood alerts and urban infrastructure design, such as Intensity-Duration-Frequency (IDF) curves, design storms and hydrographs	75,000	75,000			
b. Review and update data management policies and procedures to ensure that all data collected is quality controlled, complete, accessible, and usable.	40,000	30,000	10,000		
c. Train technical staff in data management, quality control and the associated systems for complete, accessible, and usable data (particularly as part of the management of the Risks Niger platform).	170,000	120,000	50,000		
d. Organize study and experience-sharing trips between SNMH, MAH/GC and CC/SAP to CREWS intervention countries with added values.	200,000	100,000	50,000	50,000	
II. Output2: Support for strengthening coordination, consultation and mainstream DRR/DRM into national and priority sector policies and investment planning in the country in the disaster risk management sector	**1,438,800**	**660,000**	**518,800**	**260,000**	**0**
	503,300	100,000	403,300	0	0
a. Supporting the participation of HYDROMET structures in WMO's international Hydro Hub initiatives	330,800	100,000	230,800		
b. Provide technical support to finalize the MND's National Strategic Plan (NSP)	20,000		20,000		
c. Design and implement a new information system architecture between the NMD, the national meteorological centers and the international level (major world meteorological centers and the GTS).	120,000		120,000		

d. Training and setting up a systems, networks, and security administrator	32,500		32,500		
	935,500	560,000	115,500	260,000	0
a. Increase interaction and collaboration with regional centers (e.g. ACMAD, AGRHYMET) and regional initiatives (e.g. PRESASS, SWFP West Africa) to improve NMD services.	250,000	200,000	50,000	80,000	
b. Provide technical assistance to develop rainfall height and duration warning thresholds to be used to issue surface water flood risk warnings for urban areas at risk.	130,500	90,000	40,500		
c. Strengthening and promoting the women leaders' and disability network in disaster risk management	375,000	200,000	25,000	150,000	
d. Supporting the participation of ACP member state delegates to conferences, training and seminars including regional and international DRR fora and conferences (Global and Regional Platforms for DRR, World Reconstruction Conferences, Understanding Risk forums, etc.)	100,000	70,000		30,000	
III. Output3: Training in emergency preparedness and response to floods, drought and heat waves	**192,700**	**60,000**	**132,700**	**0**	**105,000**
	152,700	60,000	92,700	0	0
a. Develop degree courses for the technical staff of HYDROMET structures on risk management, particularly flooding, and water resource management	120,000	60,000	60,000		
b. Train two (02) NMD experts in the management of climatological databases (CLIDATA and CLIMSOFT)	32,700		32,700		
	40,000	0	40,000	0	105,000
a. Train technical staff in the operation and maintenance of mapping tools and data servers.	10,000		10,000		35,000
b. Train technical staff in specific areas of Early Warning System development (diploma course)	30,000		30,000		70,000
IV. Output4: Improving urban and peri-urban resilience mechanisms for flood, drought and heat risk assessment in the targeted cities in the country	**290,000**	**110,000**	**30,000**	**150,000**	**0**
	30,000	0	30,000	0	0
a. Carry out a strategic assessment of the benefits for using automatic telemetric river stations compared with manual stations	30,000		30,000		
	260,000	110,000	0	150,000	0
a. Enhancing technical capacity of cities to empower them to pursue comprehensive investment programs in order to strengthen resilience and help influence larger development investments	20,000	20,000			
b. Providing technical support to cities focused on harnessing new technological opportunities in risk mapping and in developing new risk-based data products at metropolitan and local scales	40,000	40,000			
c. Promoting participatory resilience planning and data generation processes and related skills building through coordination with civil society and academia to improve innovative, open and dynamic data collection and mapping processes that support management of urban growth and disaster risk	30,000	30,000			

d. Fostering partnerships between cities and development partners, civil society and academia, through which cities can access technical and financing partners with an interest in climate smart urban planning and infrastructure investments, smart development and architecture (roof gardens, wall gardens, etc.)	170,000	20,000		150,000	
Component B: Enhanced delivery of basic early warning services with products co-developed with specific end-users.	**724,200**	**459,200**	**185,000**	**80,000**	**795,000**
V. Output5: Development of support tools to strengthen the technical capacities of stakeholders and improve the early warning system	**127,000**	**52,000**	**75,000**	**0**	**383,000**
	127,000	52,000	75,000	0	383,000
a. Mapping potentially flood-prone areas for effective and efficient responses (the map will make it possible to estimate the populations at risk, alert people living in the areas and facilitate assistance by pre-positioning).	0				23,000
b. Streamlining the "chain of information" across regional, national, and subnational levels, improving data exchange platforms including the www.risques-niger.ne, training managers in NICT (Integrating data on natural disasters, the health situation, production systems (agro-sylvopastoral, energy), the environment & water resources at local level.	0				90,000
c. Streamlining the "chain of information" across regional, national, and subnational levels, improving data exchange platforms including the www.risques-niger.ne, training managers in NICT (development of warning applications, information management) and ensuring its operation: Technical assistance to MAH/GC and ANSI at central and regional level	0				70,000
d. Providing demand-driven support to strengthen the capacity to understand risk, in particular by carrying out analytical work such as hazard mapping, exposure modelling, vulnerability analysis, probabilistic risk models, and spatial data management, including how climate change may affect risk profiles, as well as risk and damage assessments including on natural assets, preparedness diagnostics, and economic and non-economic analyses.	25,000		25,000		50,000
e. Carry out agroclimatic characterization over a long series of targeted municipalities	50,000		50,000		150,000
f. Development of flood-and early warning management apps by students of the City of Innovation	52,000	52,000			
VI. Output6: Improving the effectiveness of the early warning and rapid response system for emergencies by developing hydrometeorological forecasting tools and equipment to improve food security	**385,000**	**275,000**	**110,000**	**0**	**90,000**
	60,000	15,000	45,000	0	
a. Provide technical support for the preparation and distribution of alert bulletins (drought, flooding, heat waves and dust)	30,000	15,000	15,000		
b. Develop rainfall monitoring with cell-phone signal attenuation	30,000		30,000		
	325,000	260,000	65,000	0	90,000
a. Design a system for producing information on impacts linked to property/area types.	235,000	200,000	35,000		
b. Set up appropriate hydraulic/hydrological models and train the technical staff of HYDROMET structures	90,000	60,000	30,000		

c. Set up a specific flood EWSs in certain sub-basins (information system on flow forecasting in the basins, taking into account the various available and existing models (Gaya, Maradi, Diffa and Agadez): Technical assistance for the transformation of the platform and the strengthening of the technical capacities of the monitoring staff of the local early/rapid warning systems (SSAP/R).	0				90,000
VII. Output7: Raising awareness and strengthening community involvement, including the creation of inclusive local committees (including OSVs and SCAPRUs for food security monitoring, flood vigilance committees and other types of community organizations) with the active participation and leadership of women and persons with disabilities	**212,200**	**132,200**	**0**	**80,000**	**322,000**
	80,000	0	0	80,000	322,000
a. Conduct an inventory of SCAP/RU in the 14 municipalities targeted for the PIDUREM investment	0				150,000
b. Coordinate exchanges with the entire SNHM (periodic meetings, roadmap validation workshops, sharing and follow-up)					27,000
c. Train the OSV/SCAPRU of the PIDUREM's municipalities on the anticipatory framework	50,000			50,000	70,000
d. Revitalize the OSV/SCAPRU, taking into account the empowerment of women and persons of disabilities in the local mechanisms of the 14 PIDUREM municipalities.	30,000			30,000	75,000
	132,200	132,200	0	0	0
a. Carry out an inventory of OSV/SCAPRU in the other authorities involved in the project	60,000	60,000			
b. Contract the dissemination of warning information by community radio stations and the community radio network	52,200	52,200			
c. Train the OSV/SCAP/RU actors in monitoring local indicators and early warning for floods and other crises	20,000	20,000			
Monitoring and evaluation – Mid and end term evaluation of the project	50,000	50,000			
Grand Total	**3,488,200**	**1,688,200**	**1,200,000**	**600,000**	**900,000**

Attachment 2: Timeline for implementation: Niger Scaling up lessons learned from previous CREWS to strengthen early warning services.

Component/output/activities	2024				2025				2026				2027			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Component A Strengthened institutional and regulatory frameworks and mechanisms and improved capacities to support risk governance.																
Output1: Support for institutional strengthening, policies and strategies to improve coordination and consultation for the disaster risk management sector																
Lead IP: WMO																
Develop/review the training plans for the technical staff of HYDROMET services		■	■	■												
Review the operation and maintenance of all observation equipment and support systems (e.g. communications networks).				■	■	■	■									
Identify performance measures in accordance with ISO standards for service delivery and appoint a quality manager for NMD			■	■	■											
Update and hosting the National Meteorology Directorate (NMD) website		■	■													
National authorities supported to utilize the Niger National Risk Profile effectively in decision-making for impact-based Early Warning and disaster risk reduction efforts				■	■	■	■	■	■	■	■	■				
Lead IP: WBG/GFDRR																
Provide technical assistance to develop and adopt local climate data sets and tools for use in flood alerts and urban infrastructure design, such as Intensity-Duration-Frequency (IDF) curves, design storms and hydrographs			■	■	■	■	■	■								
Review and update data management policies and procedures to ensure that all data collected is quality controlled, complete, accessible, and usable.			■	■	■	■										
Train technical staff in data management, quality control and the associated systems for complete, accessible, and usable data (particularly as part of the management of the www.risques-niger.ne platform).			■	■	■	■	■	■	■	■	■	■	■	■		
Organize study and experience-sharing trips between SNMH, MAH/GC and CC/SAP to CREWS intervention countries with added values.				■		■				■				■		
Output2: Support for strengthening coordination, consultation and mainstream DRR/DRM into national and priority sector policies and investment planning in the country in the disaster risk management sector																
Lead IP: WMO																
Supporting the participation of HYDROMET structures in WMO's international Hydro Hub initiatives					■		■				■				■	
Design and implement a new information system architecture between the NMD, the national meteorological centers and the international level (major world meteorological centers and the GTS).				■	■	■										
Training and setting up a systems, networks and security administrator		■	■	■												
Provide technical support to finalize the MND's National Strategic Plan (NSP)	■	■														
Lead IP: WBG/GFDRR																
Increase interaction and collaboration with regional centers (e.g. ACMAD, AGRHYMET) and regional initiatives (e.g. participation to PRESASS, PREGEC, RPCA, SWFP West Africa) to improve NMD services.		■	■	■	■	■	■	■	■	■	■	■				
Provide technical assistance to develop rainfall height and duration warning thresholds to be used to issue surface water flood risk warnings for urban areas at risk.		■	■	■	■	■	■	■								

Component/output/activities	2024				2025				2026				2027			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Strengthening and promoting the women leaders' and persons with disabilities network in disaster risk management by rolling out the gender and disability checklist																
Output3: Training in emergency preparedness and response to floods, drought and heat waves																
Lead IP: WMO																
Develop degree courses for the technical staff of HYDROMET structures on risk management, particularly flooding, and water resource management																
Train two (02) NMD experts in the management of climatological databases (CLIDATA and CLIMSOFT)																
Lead IP: WBG/GFDRR																
Train technical staff in the operation and maintenance of mapping tools and data servers.																
Train technical staff in specific areas of Early Warning System development (diploma course)																
Output4: Improving urban and peri-urban resilience mechanisms against flood, drought and heat risk assessment in the targeted cities in the country																
Lead IP: WMO																
Carry out a strategic assessment of the benefits for using automatic telemetric river stations compared with manual stations																
Lead IP: WBG/GFDRR																
Enhancing technical capacity of cities to empower them to pursue comprehensive investment programs in order to strengthen resilience and help influence larger development investments																
Providing technical support to cities focused on harnessing new technological opportunities in risk mapping and in developing new risk-based data products at metropolitan and local scales																
Promoting participatory resilience planning and data generation processes and related skills building through coordination with civil society and academia to improve innovative, open and dynamic data collection and mapping processes that support management of urban growth and disaster risk																
Fostering partnerships between cities and development partners, civil societies, and academia, through which cities can access technical and financing partners with an interest in climate smart urban planning and infrastructure investments, smart development and architecture (roof gardens, wall gardens, etc.)																
Component B: Enhanced delivery of basic early warning services with products co-developed with specific end-users																
Output5: Development of support tools to strengthen the technical capacities of stakeholders and improve the early warning system																
Lead IP: WBG/GFDRR																
Carry out agroclimatic characterization over a long series of targeted communes																
Mapping potentially flood-prone areas for effective and efficient responses (the map will make it possible to estimate the populations at risk, alert people living in the areas and facilitate assistance by pre-positioning).																
Streamlining the "chain of information" across regional, national, and subnational levels, improving data exchange platforms including the www.risques-niger.ne, training managers in NICT (development of warning applications, information management) and ensuring its operation: Technical assistance to MAH/GC and ANSI at central and regional level																
Development of flood-and early warning management apps by students of the City of Innovation																

Component/output/activities	2024				2025				2026				2027			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Streamlining the "chain of information" across regional, national, and subnational levels, improving data exchange platforms including the www.risques-niger.ne, training managers in NICT (Integrating data on natural disasters, the health situation, production systems (agro-sylvopastoral, energy), the environment & water resources at local level.																
Providing demand-driven support to strengthen the capacity to understand risk, in particular by carrying out analytical work such as hazard mapping, exposure modelling, vulnerability analysis, probabilistic risk models, and spatial data management, including how climate change may affect risk profiles, as well as risk and damage assessments including on natural assets, preparedness diagnostics, and economic and non-economic analyses																
Output6: Improving the effectiveness of the early warning and rapid response system for emergencies by developing hydrometeorological forecasting tools and equipment to improve food security																
Lead IP: WMO																
Provide technical support for the preparation and distribution of alert bulletins (drought, flooding, heat waves and dust)																
Lead IP: WBG/GFDRR																
Design a system for producing information on impacts linked to property/area types.																
Development of rainfall monitoring with cell-phone signal attenuation																
Set up appropriate hydraulic/hydrological models and train the technical staff of HYDROMET structures																
Set up a specific flood EWSs in certain sub-basins (information system on flow forecasting in the basins, considering the various available and existing models (Gaya, Maradi, Diffa and Agadez): Technical assistance for the transformation of the platform and the strengthening of the technical capacities of the monitoring staff of the local early/rapid warning systems (SSAP/R).																
Output7: Raising awareness and strengthening community involvement, including the creation of inclusive local committees (including OSVs and SCAPRUs for food security monitoring, flood vigilance committees and other types of community organizations) with the active participation and leadership of women and persons with disabilities.																
Lead IP: WBG/GFDRR																
Conduct an inventory of SCAP/RU in the 14 municipalities targeted for the PIDUREM investment and the 32 municipalities from the FSRP investment																
Coordinate exchanges with the entire SNHM (periodic meetings, roadmap validation workshops, sharing and follow-up)																
Revitalize the OSV/SCAPRU, considering the empowerment of women and persons with disabilities in the local mechanisms of the 14 PIDUREM municipalities and the 32 municipalities from the FSRP investment.																
Lead IP: UNDRR																
Carry out an inventory of OSV/SCAPRU in the other authorities involved in the project																
Contract the dissemination of warning information by community radio stations and the community radio network																
Train the OSV/SCAPRU of the PIDUREM's municipalities on the anticipatory framework																
Monitoring and evaluation – including mid and end – term evaluation.								Mid term								End term

Attachment 3: Logical framework

Expected result	Output/Activity	Indicators	Baseline Jan 2024	Target Dec. 2027	Data sources	Data collection method	Frequence	Responsible
Impact: Improved the capacities of national institutions in delivering early warning to targeted populations in selected areas in Niger.								
		#Number of people		3,400,000	PIDUREM	Report	semestrial	PIDUREM
Outcome: Strengthened capacities of Hydromet and early warning system enable regular production of major hazard alerts to people in targeted areas in Niger								
	Product of various type of alert bulletins: flood, drought, heat waves, dust, rise in the water level, etc.	#Number of alert types	5	5	PIDUREM/National institutions	Report	semestrial	PIDUREM/National institutions
Output								
Output1: Support for institutional strengthening, policies, and strategies to improve coordination and consultation for the disaster risk management sector								
The institutions and actors involved in risk and disaster management are strengthened and the interrelationships between them clarified and controlled.	Develop/review the training plans for the technical staff of HYDROMET services	#Number of plans	0	5	national institutions	Report	one time	PIDUREM
	Review the operation and maintenance of all observation equipment and support systems (e.g. communications networks).	#Review report	0	1	DNM	Report	one time	DNM
	Update and hosting the National Meteorology Directorate (NMD) website	#Website	0	1	DNM	Portal	all time	DNM
	Provide technical assistance to develop and adopt local climate data sets and tools for use in flood alerts and urban infrastructure design, such as Intensity-Duration-Frequency (IDF) curves, design storms and hydrographs	#Number of actors trained	0	10	National institution/PIDUREM	Report	semestrial	PIDUREM
	Review and update data management policies and procedures to ensure that all data collected is quality controlled, complete, accessible, and usable.	#Policy document	0	1	FSRP	Report	one time	FSRP
	Train technical staff in data management, quality control and the associated systems for complete, accessible and usable data (particularly as part of the management of the www.risques-niger.ne platform).	#Number of staff trained	0	50	Institutions/PIDUREM/FSRP	Report	semestrial	PIDUREM/FSRP
	Organize study and experience-sharing trips between SNMH, MAH/GC and CC/SAP to CREWS intervention countries with added values.	#Number of trips	0	4	PIDUREM/FSRP	Report	semestrial	PIDUREM/FSRP
	Support national authorities (i.e. HYDROMET, NMD, OSV/SCAPRU) to understand and use the Niger National Risk Profile in decision-making for impact-based EW and disaster risk reduction	#Number of staff trained #of training workshops	0 0	20 1	National institutions/PIDUREM/FSRP	Report	semestrial	PIDUREM/FSRP
Output2: Support for strengthening coordination and consultation in the disaster risk management sector								
Improved coordination	Supporting the participation of HYDROMET structures in WMO's international Hydro Hub initiatives	#Number of events	0	4	FSRP/WMO	Report	semestrial	FSRP/WMO

Expected result	Output/Activity	Indicators	Baseline Jan 2024	Target Dec. 2027	Data sources	Data collection method	Frequence	Responsible
between actors involved in risk and disaster management is developed, with clear policies and strategies that are known to all.	Design and implement a new information system architecture between the NMD, the national meteorological centers and the international level (major world meteorological centers and the GTS).	#System developed	0	1	WMO	Report	semestrial	WMO
	Training and setting up a systems, networks, and security administrator	#Number of administrators in place	0	5	WMO	Report	semestrial	WMO
	Provide technical support to finalize the MND's National Strategic Plan (NSP)	#SNP finalized	0	1	WMO	Report	semestrial	WMO
	Increase interaction and collaboration with regional centers (e.g., ACMAD, AGRHYMET) and regional initiatives (e.g. PRESASS, SWFP West Africa) to improve NMD services.	#Number of linked events	0	3	FSRP	Report	semestrial	FSRP
	Provide technical assistance to develop rainfall height and duration warning thresholds to be used to issue surface water flood risk warnings for urban areas at risk.	#Rainfall height and duration thresholds set	0	1	DNM	Report	one time	PIDUREM
	Strengthening and promoting the women leaders' and persons with disability network in disaster risk management	#Women Network set Gender and Disability checklist rolled out #Number of actors trained	0 0 0	11 1 50	MAH/GC	Report	semestrial	MAH/GC
Output3: Training in emergency preparedness and response to floods, drought and heat waves								
The capacities of actors and institutions are strengthened, and their roles and responsibilities clarified in emergency preparedness and response.	Develop degree courses for the technical staff of HYDROMET structures on risk management, particularly flooding, and water resource management	#Number of staff trained.	0	20	WMO	Report	Semestrial	WMO
	Train two (2) NMD experts in the management of climatological databases (CLIDATA and CLIMSOFT)		0	2	DNM	Report	Semestrial	DNM
	Train technical staff in the operation and maintenance of mapping tools and data servers.		0	10	DNM	Report	Semestrial	DNM
	Train technical staff in specific areas of Early Warning System development (diploma course)		0	10	DNM	Report	Semestrial	DNM
Output4: Improving urban and peri-urban resilience mechanisms against flood, drought and heat risk assessment in the targeted cities in the country								

Expected result	Output/Activity	Indicators	Baseline Jan 2024	Target Dec. 2027	Data sources	Data collection method	Frequence	Responsible
Plans and Tools for assessing the risks and impacts of floods, drought and extreme heat are developed and mastered by stakeholders.	Carry out a strategic assessment of the benefits for using automatic telemetric river stations compared with manual stations	#Report produced	0	1	DGRE	Report	one time	DGRE
	Enhancing technical capacity of cities to empower them to pursue comprehensive investment programs to strengthen resilience and help influence larger development investments	#Number of cities	0	8	PIDUREM	Report	Semestrial	PIDUREM
	Providing technical support to cities focused on harnessing new technological opportunities in risk mapping and in developing new risk-based data products at metropolitan and local scales		0	8	PIDUREM	Report	Semestrial	PIDUREM
	Promoting participatory resilience planning and data generation processes and related skills building through coordination with civil society and academia to improve innovative, open and dynamic data collection and mapping processes that support management of urban growth and disaster risk		0	14	PIDUREM	Report	Semestrial	PIDUREM
Output5: Development of support tools to strengthen the technical capacities of stakeholders and improve the early warning system								
The capacities of actors and stakeholders are strengthened using the tools developed and have improved the existing early warning system more effectively.	Carry out agroclimatic characterization over a long series of targeted municipalities	#Number of municipalities characterized	0	21	DNM/DGRE	Report	Semestrial	PIDUREM
	Mapping potentially flood-prone areas for effective and efficient responses (the map will make it possible to estimate the populations at risk, alert people living in the areas and facilitate assistance by pre-positioning).	#Number of maps realized	0	8	DNM/DGRE	Report	Semestrial	PIDUREM
	Transforming the risques-niger.ne platform, training managers in NICT (development of warning applications, information management) and ensuring its operation: Technical assistance to MAH/GC and ANSI	#Number of staff trained in O&M	0	5	ANSI	Report	Semestrial	PIDUREM
	Transforming the wwww.risques-niger.ne platform, training managers in NICT (Integrating data on natural disasters, the health situation, production systems (agrosylvopastoral, energy), the environment and water resources at local level.	#New platform www.risques-niger.ne online	0	1	ANSI	Report	Semestrial	PIDUREM
	Development of flood-and early warning management apps by students of the City of Innovation	#Number of applications developed	0	1	ANSI	Report	Semestrial	PIDUREM
Output6: Improving the effectiveness of the early warning and rapid response system for emergencies by developing hydrometeorological forecasting tools and equipment to improve food security								

Expected result	Output/Activity	Indicators	Baseline Jan 2024	Target Dec. 2027	Data sources	Data collection method	Frequence	Responsible
Hydrometeorological forecasting tools and equipment are strengthened and improve the effectiveness of the early warning system.	Provide technical support for the preparation and distribution of alert bulletins (drought, flooding, heat waves and dust)	#Number of bulletins	0	6	WMO/WBG	Report	semestrial	PIDUREM
	Development of rainfall monitoring with cell-phone signal attenuation	System	0	1	FSRP	Report	one time	FSRP
	Design a system for producing information on impacts linked to property/area types.	#System in place	0	1	DNM/DGRE	Report	one time	PIDUREM/FSRP
	Set up appropriate hydraulic/hydrological models and train the technical staff of HYDROMET structures	#Number of models in place	0	2	DNM/DGRE	Report	one time	PIDUREM/FSRP
	Set up a specific flood EWSs in certain sub-basins (information system on flow forecasting in the basins, considering the various available and existing models (Gaya, Maradi, Diffa and Agadez): Technical assistance for the transformation of the platform and the strengthening of the technical capacities of the monitoring staff of the local early/rapid warning systems (SSAP/R).	#Number of local systems of EW	0	6	PIDUREM	Report	Semestrial	PIDUREM
Output7: Raising awareness and strengthening community involvement, including the creation of inclusive local committees (including OSVs and SCAPRUs for food security monitoring, flood vigilance committees and other types of community organizations) with the active participation and leadership of women.								
Community participation and actions directed at populations are strengthened, with full involvement of women and person with disability.	Conduct an inventory of SCAP/RU in the 14 municipalities targeted for the PIDUREM investment	#Number of SCAP/RU	0	300	CC/SAP	Report	Semestrial	CC/SAP
	Coordinate exchanges with the entire SNHM (periodic meetings, roadmap validation workshops, sharing and follow-up)	#Number of actions in place	0	6	MAH/GC	Report	semestrial	MAH/GC
	Revitalize the OSV/SCAPRU, considering the empowerment of women in the local mechanisms of the 14 PIDUREM municipalities.	#Number of OSV lead by women	0	10	CC/SAP	Report	Semestrial	CC/SAP
	Carry out an inventory of OSV/SCAPRU in the other authorities involved in the project	#Report produced	0	1	CC/SAP	Report	Semestrial	CC/SAP
	Contract the dissemination of warning information by community radio stations and the community radio network	#Number of contracts	0	21	CC/SAP	Report	Semestrial	CC/SAP
	Train the OSV/SCAPRU of the PIDUREM's municipalities on the anticipatory framework	#% of OSV/SCAP/RU trained	0	45	CC/SAP	Report	Semestrial	CC/SAP
	Train the OSV/SCAP/RU actors in monitoring local indicators and early warning for floods and other crises		0	300	CC/SAP	Report	Semestrial	CC/SAP

Attachment 4: Alignment with the CREWS MEAL Framework

CREWS MEAL Outcomes	**Outcome 1.National and local multi- hazard early warning systems prioritized and funded**			**Outcome 2. Improved early waning service delivery and accessibility by national and regional institutions**				**Outcome 3. Early warning programmes are driven by people- centered and gender responsive principles and promote private sector engagement**	
CREWS MEAL Outputs / **Project Outputs**	Output 1.1. A country and/or region has developed or strengthened legislative and/or institutional frameworks to support and sustain multi- hazard early warning systems	Output 1.2. Multi-hazard needs, gaps and priority assessments, analyses and related investment plans for early warning systems in a country or region are driven by CREWS financing	Output 1.3. Partnerships and cooperation frameworks developed for financing and scaling up support to multi-hazard early warning systems	Output 2.1 Risk information and tools generated by countries to enable the delivery of impact- based early warnings	Output 2.2. Monitoring, analysis and forecasting of hazards that threaten the country/region are improved and sustained by the countries	Output 2.3 Warnings are communicated by the countries based on common alerting protocols under agreed standard operational procedures (SOPs)	Output 2.4 Warnings are received, understood and acted upon based on co-produced preparedness and response plans by the countries	Output 3.1 People of different backgrounds, gender, youth, older persons, persons with disability, poor, marginalized, displaced, and non- native, as well as related institutions have co- produced climate and weather information products tailored to their needs	Output 3.2 Private sector is engaged to foster innovation and sustainability in delivery of early warning services
Output1: Support for institutional strengthening, policies, and strategies to improve coordination and consultation for the disaster risk management sector	✓		✓						
Output2: Support for strengthening coordination and consultation in the disaster risk management sector	✓		✓						
Output3: Training in emergency preparedness and response to floods, drought and heat waves		✓		✓					

	Output4: Improving urban and peri-urban resilience mechanisms against flood, drought and heat risk assessment in the targeted cities in the country					✓		✓		
	Output5: Development of support tools to strengthen the technical capacities of stakeholders and improve the early warning system		✓		✓	✓	✓	✓		
	Output6: Improving the effectiveness of the early warning and rapid response system for emergencies by developing hydrometeorological forecasting tools and equipment to improve food security				✓	✓	✓	✓		
	Output 7: Raising awareness and strengthening community involvement, including the creation of inclusive local committees (including OSVs and SCAPRUs for food security monitoring, flood vigilance committees and other types of community organizations) with the active participation and leadership of women.							✓	✓	

Attachment 5: References

Acronyms

ABN:	Autorité du Bassin du Fleuve Niger
ACMAD:	African Center of Meteorological application and development
AGRHYMET -CCR/AOS :	Regional Climate Center for West Africa and the Sahel
AGROMET :	Agro-meteorological systems
CBLT:	Commission du Bassin du Lac Tchad
CC/SAP:	Cellule de coordination du système d'alerte précoce
CCA:	Cellule Crise Alimentaire
CNESI:	Comité national d'évaluation des sinistres et impacts
CNSC:	Cadre national des services climatiques
CREWS:	Climate Risks and Early Warning Systems
DGRE :	Direction Générale des Ressources en Eau
DMN:	Direction de la Météorologie Nationale
DNPGCA:	Dispositif national de prévention et de gestion des crises alimentaires
EAMAC:	Ecole d'application de la météorologie et l'aviation civile
EPER :	Enquête de prévision et estimation des récoltes
EWS :	Early Warning System
FAO :	Food and Agriculture Organisation for the United Nation
FSRP:	West Africa Food System Resilience Program
GFDRR:	Global Facility for Disaster Reduction and Recovery
GTI:	Groupe de travail interdisciplinaire
HYDROMET :	Hydro-Meteorological systems
IRD:	Institut de Recherche pour le Développement
IRI:	International Research Institute for Climate and Society
IWRM&EWS/CCR/LCB:	Integrated Water Resources Management and Early Warning Systems for Climate Change Resilience in the Lake Chad Basin
MAH/GC:	Ministère de l'action humanitaire et de la gestion des catastrophes
NMHSs:	National Meteorological and Hydrological Services
NOAA :	National Oceanic and Atmospheric Administration,
OSV:	Observatoires de suivi de la vulnérabilité

PIDACC/BN):	Integrated Program for Development and Adaptation to Climate Change in the Basin of Niger
PIDUREM:	Projet intégré de développement urbain et de résilience multisectorielle
PRESA-SS:	Regional climate outlook forum on the seasonal forecasting of agro-hydro-climatic characteristics of the Sahelian and Sudanian region of West Africa and Sahel
SCAPRU	Système communautaire d'Alerte précoce et de réponse aux urgences
SIMA:	Système d'information sur les produits agricoles
SIMB :	Système d'information sur les Marchés à bétail
SWFP	Severe Weather forecasting Program
UNDP:	United nation development program
UNDRR:	United Nation Office for Disaster Risks Reduction
WBG	World Bank Group
WFP:	World food program for the United Nations
WMO:	World Meteorological Organization

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Ongoing project linked

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Niger

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13. http://www3.compareyourcountry.org/states-of-fragility/countries/NER/
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Africa

Africa Road Map for Improving the Availability, Access and Use of Disaster Risk Information for Early Warning and Early Action, including in the Context of Transboundary Risk Management: https://www.undrr.org/publication/africa-road-map-improving-availability-access-and-use-disaster-risk-information-early

Comment Matrix (synthesis of comments received from Experts nominated by CREWS Steering Committee Members)