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Jahez (Ready) - Climate-Ready Refugee Hosting Communities in Jordan: Stakeholder Consultation Meeting on Climate and Weather Information Landscape Analysis

May 20, 2025 – Amman, Jordan

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Cover photo: Participants at the Jahez Stakeholder Consultation Meeting on Climate and Weather Information Landscape Analysis (*photo*: Raneem/Scope Lines).

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Project

The Jahez (Ready) - Climate-ready refugee hosting communities in Jordan project is a three-year project funded by the Government of the United Kingdom (UK) and implemented by the International Water Management Institute (IWMI) and Met Office (UK), in collaboration with the Royal Scientific Society (RSS) and the Climate Action Association (CAN) at the sub-national level. The project is jointly steered by the Ministry of Environment (MoEnv) and the Ministry of Planning and International Cooperation (MoPIC), together with other key partners, including the Ministry of Water and Irrigation (MWI), Ministry of Agriculture (MoA), the National Center for Security and Crisis Management (NCSCM), the Jordan Meteorological Department (JMD), the Ministry of Local Administration (MoLA), Jordanian National Commission for Women, as well as relevant municipalities and local actors.

Collaborators

International Water Management Institute (IWMI)

Met Office (UK), the United Kingdom's National Meteorological Service

Ministry of Environment, Jordan

Ministry of Planning and International Cooperation, Jordan

Donor

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Contents

Acronyms and Abbreviations

CAN	Climate Action Association
CBO	Community-Based Organization
CNRI	Climate-Refugee Nexus Initiative
COP	Conference of the Parties
CVDB	Cities and Villages Development Bank
DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
ECMWF	European Centre for Medium-Range Weather Forecasts
EWS	Early Warning System(s)
FCDO	Foreign, Commonwealth & Development Office, UK
GoJ	Government of Jordan
IWMI	International Water Management Institute
JMD	Jordan Meteorological Department
MoA	Ministry of Agriculture
MoEnv	Ministry of Environment
MoLA	Ministry of Local Administration
MoPIC	Ministry of Planning and International Cooperation
MWI	Ministry of Water and Irrigation
NbS	Nature-based Solutions
NCSCM	National Center for Security and Crisis Management
NGO	Non-Governmental Organization
RSS	Royal Scientific Society
SOP	Standard Operating Procedure
UNDP	United Nations Development Programme
WCI	Weather and Climate Information
WFP	World Food Programme
WISER	Weather and Climate Information Services

Executive Summary

The “Jahez (Ready) - Climate-ready refugee hosting communities in Jordan” project held its first consultation meeting on climate and weather information on 20 May 2025 in Amman, Jordan. The meeting aimed to gather practical insights to enrich the understanding of weather and climate information systems in Jordan focusing on the three Jahez pilot sites in Al-Azraq, Al-Ramtha, and Irbid municipalities. The meeting brought together 21 key individuals, including representatives from the UK’s Foreign, Commonwealth & Development Office (FCDO), target municipalities, and key government entities such as the Ministry of Environment (MoEnv), Ministry of Agriculture (MoA), Ministry of Local Administration, the Jordan Meteorological Department (JMD), the National Center for Security and Crisis Management (NCSCM), and the Cities and Villages Development Bank (CVDB). Active development partners were also present including Mercy Corps and the World Food Programme (WFP).

The meeting followed a participatory and interactive approach to facilitate participant engagement and open discussion around key elements such as the status of access and use of weather and climate information by the three municipalities, actions municipalities can currently take based on such info, and the challenges faced by municipalities and other entities in relation to access, communication and use of such info. The discussion evolved around common themes such as sources and access to weather information, challenges in weather information management, response and emergency preparedness, infrastructure and urbanization issues, and opportunities for improvement.

Outcomes and recommendations focused on the need for better understanding of key climate hazards, enhancing weather and climate information with an impact-based approach, exploring/optimizing dissemination channels, and co-producing effective response/action plans. The next step for the Jahez team was to utilize insights from the consultation to inform the landscape mapping that will be shared/presented at the next Project Steering Committee meeting.

ملخص تنفيذي

عقد مشروع "جاهز" لتعزيز جاهزية المجتمعات المستضيفة للاجئين للاستجابة للتغيرات المناخية في الأردن اجتماعه التشاوري الأول حول معلومات المناخ والطقس في 20 أيار في عمّان 2025. استهدف الاجتماع جمع رؤى عملية لإثراء فهم أنظمة معلومات الطقس والمناخ في الأردن مع التركيز على ثلاثة المواقع الريادية التابعة لمشروع جاهز في بلديات الأزرق، والرمثا، وإربد.

ضم الاجتماع 21 شخصًا رئيسًا، بمن فيهم ممثلون عن وزارة الخارجية والتنمية البريطانية، والبلديات المستهدفة، والجهات الحكومية الرئيسة مثل وزارات البيئة والزراعة والإدارة المحلية، ودائرة الأرصاد الجوية الأردنية، والمركز الوطني للأمن وإدارة الأزمات، وبنك تنمية المدن والقرى. وحضر الاجتماع أيضاً شركاء تنميون فاعلون، بمن فيهم منظمة ميرسي كورب وبرنامج الأغذية العالمي.

اتبع الاجتماع نهجا تشاركيًا وتفاعليًا لإتاحة الفرصة للمشاركين كي يعبروا عن آرائهم ويجروا نقاشًا مفتوحًا حول العناصر الرئيسية مثل حالة الوصول إلى معلومات الطقس والمناخ واستخدامها من قبل البلديات الثلاث، والإجراءات التي تستطيع البلديات اتخاذها حاليًا بناء على هذه المعلومات، والتحديات التي تواجه البلديات والهيئات الأخرى فيما يتعلق بالوصول إلى هذه المعلومات ونقلها واستخدامها. ودار النقاش حول مواضيع مشتركة مثل مصادر معلومات الطقس والوصول إليها، والتحديات في مجال إدارة معلومات الطقس، والاستجابة والتأهب للحالات الطوارئ، وقضايا البنية التحتية والتوسع العمراني، وفرص التحسين.

ركزت النتائج والتوصيات على الحاجة إلى التوصل إلى فهم أفضل للمخاطر المناخية الرئيسة، وتحسين معلومات الطقس والمناخ عبر اتباع نهج قائم على الأثر، واستكشاف/تطوير قنوات نشر المعلومات، والمشاركة في وضع خطط استجابة/عمل فعالة. وتمثلت الخطوة التالية لفريق جاهز في الاستفادة من الرؤى الناتجة عن التشاور لتوفير معلومات تفيد في إجراء تحليل للمشهد العام والذي سيجري مشاركته/تقديمه في اجتماع اللجنة التوجيهية القادم للمشروع.

1. Introduction

Jordan faces increasing climate risks, making resilience-building a national priority, as outlined in its climate policies and National Adaptation Plan. Authorities of Jordan have been working together with local institutions and international partners to enhance early warning systems and climate and weather information. In support of these efforts, the UK Foreign, Commonwealth and Development Office (FCDO), through the Jahez project, is supporting the Government of Jordan (GoJ) Climate-Refugee Nexus Initiative (CNRI), with particular attention to the effectiveness and localization of these systems. Launched by HM King Abdullah II at COP27, CNRI is part of the package of solutions for the COP28 Declaration on Climate, Relief, Recovery and Peace.

The *Jahez (Ready) - Climate-ready refugee hosting communities in Jordan* project supports anticipatory action and climate resilience in refugee host contexts. Running from 2024 to 2028, the project aims to strengthen climate adaptation and disaster risk reduction (DRR) for refugees and host communities in Jordan through the localized use of weather and climate information, nature-based solutions (NbS), and inclusive community-based approaches. Jahez is designed to align with and contribute to the effective delivery of Government of Jordan GoJ's national policies, strategies, and action plans, as well as its international commitments on climate change. Jahez collaborates with other regional initiatives to contribute to the program's wider goals.

Jahez is delivered by the International Water Management Institute (IWMI) and United Kingdom's Meteorological Office (UK Met Office) in collaboration with specialized local partners and humanitarian agencies in partnership of the Government of Jordan (GoJ). Sub-national level implementation is carried out by two key partners: the Royal Scientific Society (RSS) and the Climate Action Association (CAN). The project is jointly steered by MoEnv, the Ministry of Planning and International Cooperation (MoPIC) along with other relevant partners including Ministry of Water and Irrigation (MWI), the National Center for Security and Crises Management (NCSCM), the Jordanian Meteorological Department (JMD), Ministry of Local Administration (MoLA) and relevant municipalities and local actors.

2. Consultation Meeting Objectives

One of Jahez project focus areas is improving anticipatory action and adaptation to climate change through the effective, inclusive, and localized use of impact-based weather and climate information.

To support this goal, the project conducted a Stakeholder Consultation Meeting on Climate and Weather Information Landscape Analysis meeting to explore capacities, gaps, and opportunities in accessing, using, and communicating climate and weather information at national and municipal levels. This includes understanding institutional coordination, technical capabilities, and community-level needs.

This one-day workshop provided a valuable platform for stakeholders from Irbid, Al-Ramtha, and Al-Azraq municipalities, as well as national institutions and development partners, to review preliminary findings, share local experiences, and contribute to actionable recommendations.

The primary objectives of the consultation workshop were to:

- ◊ Present key findings from the ongoing Climate and Weather Information Landscape analysis, focusing on local capacities and user needs.
- ◊ Highlight approaches and practices adopted by target municipalities in accessing and utilizing climate and weather information.
- ◊ Gather insights from stakeholders to refine the analysis and ensure that proposed interventions are relevant and feasible.
- ◊ Foster dialogue and collaboration among municipalities, national institutions, and development partners to strengthen climate information systems in Jordan.

3. Meeting Overview

Welcome and Introductions

The consultation meeting brought together twenty-one key individuals and a diverse group of stakeholders, including the donor, FCDO, and representatives from the target municipalities of Al-Azraq, Al-Ramtha, and Irbid.

Key governmental bodies forming the project's Steering Committee were also present, such as MoEnv, MoA, MoLA, JMD, and NCSCM. Key actors in the field also participated, including Mercy Corps, WFP, and CVDB, all of which contributed valuable insights reflecting a broad spectrum of institutional perspectives and operational experiences.

The consultation meeting commenced with opening remarks delivered by Eng. Sara Al-Haliq, Head of Climate Adaptation Division and Jahez focal point, from MoEnv, who welcomed participants and emphasized the Ministry's commitment to supporting local climate resilience and disaster preparedness. This was followed by remarks from representatives of FCDO Eng. Ruba Al Zubi, Regional Climate Adviser for the Levant and Jahez project lead. The final remarks came from Dr. Youssef Brouziyne, Regional Representative – MENA at the International Water Management Institute (IWMI), who reaffirmed the importance of collaborative efforts under the Jahez Project framework as a flagship project for Jordan and the UK.

Technical Sessions

The technical session was initiated by the Jahez Project Lead, Jeremy Stone, who provided a comprehensive overview of the Project's vision, goals, and objectives, highlighting its focus on strengthening community resilience through integrated climate and DRR strategies.

Following this, Dr. Ahmed Masoud, provided an overview of a climate and DRR landscape analysis conducted by Jahez at the municipal level. He explained that the analysis explored multiple dimensions of climate vulnerabilities and institutional capacities, aiming to identify entry points for targeted resilience strengthening interventions for refugee and host communities.

Eng. Rabab Ali, Asem Khaza'leh, and Eng. Mansour Alshoumari, representatives from the three target municipalities (Irbid, Al-Ramtha, and Al-Azraq) respectively, presented their experiences in receiving and utilizing weather information and early warning alerts. Each municipality highlighted their unique mechanisms for translating weather alerts into actionable responses, as well as the institutional and technical challenges they face in doing so. They also identified key needs and gaps in their current systems that must be addressed to enhance municipal-level preparedness and response.

Each presentation was followed by insightful discussions and feedback from stakeholders representing the NCSCM, JMD, MoLA, MWI, WFP and Mercy Corps. These entities shared their respective mandates, ongoing initiatives, and coordination mechanisms, offering valuable perspectives on how national-level efforts intersect with municipal activities and capacities.

After the break, participants engaged in an interactive group work session led by Rana El Hajj, WISER (Weather and Climate Information Services) MENA Regional Coordinator from the UK Met Office and Dr. Ahmed Masoud. Each municipality was tasked with mapping their weather information system, starting from the initial receipt of meteorological alerts through various communication channels, to the internal processes used to translate those alerts into actionable plans and emergency responses. The groups also discussed how messages are disseminated to communities and highlighted existing partnerships and local initiatives that support DRR and emergency preparedness within their areas.

Participant Discussions

Presentations on the group work outputs by the municipalities of Al-Azraq, Greater Irbid and Al-Ramtha provided valuable insights into the status of access and use of weather and climate information at a local level, the actions they can currently take, and challenges they face. Whilst these insights may not be fully applicable to the whole of Jordan, it provided an important snapshot into the status of climate and weather information access and use at municipal level that will guide Jahez activities as well as the operations of national entities working in this field.

There are currently **mixed levels of trust** in weather and climate information as received from multiple formal and informal sources including social media posts, private service providers, and official JMD forecasts. The municipalities highlighted several challenges and opportunities related to both **accessing** weather and climate information and the **institutional capacities** to act upon it.

There is a limited and **shallow understanding from municipalities of the specific climate and disaster risks** that local communities are exposed to and their **likely impacts** on infrastructure, assets, and basic services. Further, there is a **limited clear or documented description** of these risks to guide planning and response. As a result, **preparedness and response actions are often ad hoc**, with tasks assigned orally and informally, rather than based on a defined institutional mandate or written contingency plans.

Several **structural and operational challenges** were also identified, including the absence of dedicated DRR departments or units with clear mandate, lack of trained personnel, and limited coordination mechanisms with other responsible agencies at the local level. Additionally, municipalities face **resource constraints**, including insufficient human resources, financial limitations, and a lack of basic equipment and infrastructure. For instance, most do not have designated emergency shelters for use during extreme events. It was highlighted that there are ongoing plans to support local DRR units and capacities by MOLA.

Community-level engagement also presents challenges, with municipalities noting that public response to early warning messages is often weak, reflecting a broader need to raise awareness and build a culture of preparedness. Finally, participants emphasized the importance of establishing effective and timely communication systems, both within municipal institutions and between municipalities and their communities, to ensure that critical weather alerts are translated into appropriate and coordinated actions.

The summary of findings via group work on the status of weather information and emergency preparedness within target municipalities is given in Table 1.

Table 1. Summary of group work findings on the status of weather information and emergency preparedness within target municipalities.

Municipality	WCI Sources	Coordination & Planning	Community Communication	Readiness & Capacity	Notable Initiatives
Al-Azraq	JMD via MoLA; Private sources	No formal response plan; No connection with governorate emergency unit	Social media, community leaders	No dedicated DRR unit; lacks resources and shelters	Proposals for EWS platform; link with MWI; inclusive risk management
Irbid	JMD direct to focal point; NCSCM via MoLA	Formed emergency unit; targets hotspots; some pre-season planning	Facebook, WhatsApp, city screens	Coordination with other sectors; plans to build capacity and equipment	Business continuity plan; resilience database
Al-Ramtha	MoLA; media (Roya); social media	Staff ad hoc assigned; spontaneous actions; no SOPs	WhatsApp; letters via governor	No trained staff; no DRR unit; limited preparedness	Participated in MoLA and UNDP trainings

MOLA described active efforts in disseminating forecasts through a platform they manage for municipalities. The JMD highlighted that they have a network of more than 300 liaison officers across the country responsible for disseminating forecasts and that daily forecasts are shared via a WhatsApp group to those interested from the public. However, they noted that forecasts and early warnings are not accompanied by advisory or guidance on what actions can be taken, which substantially limits the response.

There are some informal channels used to disseminate information, including WhatsApp and Facebook groups. However, these are not systematized and are further limited in areas that do not have internet/mobile data coverage.
The level of preparedness to respond to received warnings varied across the municipalities. In some cases, response teams are assigned; however, there is a gap in consistency in roles and responsibilities, and they may not have been thoroughly trained in either monitoring risk information or taking actions. At present there is no comprehensive disaster contingency planning process; however, there is an initiative being led by MOLA to develop contingency planning guidelines at national level under the leadership of NCSCM. These will then cascade down to municipality level including some of the Jahez demonstration sites.

It was highlighted that the ability to respond to early warnings was also limited by the resources available in terms of trained staff, municipal assets, and machinery to respond to disasters. There is an opportunity to advance the protocol between different agencies including municipalities, civil defense and governorates to streamline response when early warnings are received.

The NCSCM highlighted the many existing and ongoing studies on weather and early warning systems that can be consolidated to inform the next steps and actions on localizing these systems. The Jordanian Incident Handling System is an alert capability which requires cross ministerial coordination. Efforts are ongoing to provide training across departments to facilitate vertical and horizontal coordination and define roles and responsibilities in response across stakeholders and government departments.

Existing infrastructure including loudspeaker siren systems and those in mosques can be used for disseminating messages, but these messages need to be carefully coordinated to ensure trust is built in such messages and that overuse does not erode trust in these systems. There is also a hotline/calling system for use by the public during emergency situations.

The NCSCM indicated that they determine the response level based on the scale of impact but categorize this according to the need for tactical and operational responses. The municipality assigns responders when an early warning of an event is issued. The information is provided by JMD to the NCSCM who analyzes the threat and determines the appropriate response and actions. There is a focal point in NCSCM for severe weather and a JMD representative that works from the NCSCM once a week and ensures that weather information produced by JMD is conveyed in a timely manner to the NCSCM.

4. Key Findings

There were common observations and recommendations and recurring themes across the groups which need to be further explored in the wider end to end landscape analysis which are summarized as follows:

1. **Sources and access to weather information**: All municipalities receive multiple sources of weather information, including from government entities and specialized electronic sites such as messaging systems, social media, and official websites to disseminate this information. A lack of consistency and accuracy in messages can cause confusion and inhibit action and use of risk information.
2. **Challenges in weather information management**: There is limited coordination and between entities and standard operating procedures (SOPS) do not effectively determine roles and responsibilities across departments and ministries. This causes delays in receiving warnings exacerbated by connectivity challenges in some localities forcing reliance on traditional and unofficial communication methods. These issues hinder effective weather information management and emergency response.
3. **Response and emergency preparedness**: Each municipality has established processes for receiving, evaluating, and responding to weather information. This includes coordinating internal meetings, implementing response plans, and issuing early warnings to reduce risks and ensure community safety. However, the municipalities all emphasized that these processes are not institutionalized and very much reliant on individuals, which is not sustainable. There are often changes when personnel acting as focal points are not availability when warnings and forecast messages are received. Response procedures and required actions are not always clear once a message is received, and decisions on what actions to take are made in a reactionary way rather than through a pre-agreed plan or standard operating procedure. While some municipalities, such as Irbid, have made progress in forming emergency response units and engaging other sectors (e.g., agriculture, education), the lack of trained personnel, dedicated DRR departments, and financial and technical resources remains a widespread barrier.

Other challenges identified include:

- **Lack of clarity on locally specific climate and disaster risks**, with limited data or documentation to support planning.
- **Weak coordination mechanisms** with national entities (e.g., NCSCM, MWI) and inconsistent engagement with ongoing national or donor-supported initiatives. Each agency seems to be working well according to their own mandate, however, there seems to be some breakdown between agencies.
- **Limited communication infrastructure**, with reliance on ad hoc channels such as social media and WhatsApp, and inconsistencies between these sources.
- **Absence of designated shelters** and critical emergency infrastructure.
- **Low public awareness and engagement**, with many citizens unaware of how to respond to alerts or perceive them as unreliable.

Despite these gaps, some positive practices were shared, such as:

- Irbid's initiative to **review post-event responses** and update a local resilience database which includes the response mechanisms and updating the vulnerability mapping.
- Al-Azraq raised a vision and idea to develop **platforms for multi-stakeholder response coordination** and nominate focal points from national agencies for improved coordination.
- Al-Ramtha's engagement in training with UNDP and Mercy Corps to capacitate the team with Knowlege and skills for preparedness planning for DRR.

5. Recommendations

The key findings and recommendations have been developed based on the discussion. It should be noted that several recommendations are applicable for the Jahez project. However, many require actions from across stakeholders working on climate and weather information.

Understanding climate hazards:

- **Gain a greater understanding of the key hazards and vulnerabilities** of the population to the weather and climate at the target site locations. Jahez can support participatory approaches with municipalities and target communities to map out the likely impacts of priority hazards on lives, livelihoods, infrastructure and assets including access and ability to use basic services such as water, health systems and markets.

Weather and climate information forecast development:

- Jahez should continue to work with JMD and NCSCM to include impact statements and guidance in public weather warnings. These should be tailored to different user needs and consider language, literacy levels, and technical depth.
- Uk met office can work with JMD and NCSCM to enhance understanding with users on the probabilistic nature of weather forecasting and how forecasts can be used to inform decisions. Opportunities for co-production of prototype impact-based forecasts and warnings for target sites.

Improved coordination and communication structures:

- Develop and adopt standard operating procedures (SOPs) and contingency plans that guide timely, coordinated actions following alerts and highlight roles and responsibilities across departments and stakeholders. This should map end-to-end procedures from data analysis and issuance of forecasts, dissemination to critical ministries and departments, and onward sharing to different users. This should ensure nominated focal points are trained and aware of their roles and responsibilities.
- Daily or weekly **information exchanges between key departments** including meteorological updates, alerts, and risk assessments through having direct and effective communication channels
- A **shared communication protocol or platform**, such as a secure digital dashboard or WhatsApp group, to disseminate real-time data and early warnings.
- **Joint contingency planning and simulation exercises**, co-led by JMD, NCSCM, and municipalities, to build familiarity and alignment on responsibilities.
- **Pre-defined thresholds for action** agreed upon by all parties (e.g., rainfall intensity that triggers a municipal response).
- **Annual coordination review meetings** to evaluate effectiveness, update communication protocols, and integrate lessons learned.
- **Liaison officers from JMD or NCSCM** embedded or seconded to municipalities during peak seasons to improve two-way communication.
- Opportunities for **knowledge sharing** between participants are important.

Climate and weather information dissemination:

- Deepen understanding of the different pathways that municipalities access weather information and how information is packaged and tailored to different users to inform localized early warning systems tailored to municipality and community needs.
- Enhance communication infrastructure to ensure accurate, timely dissemination of alerts to diverse community segments using both digital and traditional channels. Generally, this could involve:
  - **Digital channels**: Integrate municipal alert systems with **SMS broadcasts, mobile apps**, and **social media platforms** (e.g., Facebook, WhatsApp) to reach connected populations.
  - **Traditional channels**: Reactivate or invest in **community radio stations, mosque loudspeakers, municipal vehicles with megaphones**, and **public notice boards** for communities with limited digital access.
  - **Community-based dissemination networks**: Establish partnerships with local **CBOs, schools, health centers, and religious leaders** to act as information multipliers, especially in remote or vulnerable areas.

- **Accessible communication**: Ensure all messages are **linguistically and culturally appropriate**, using simple language, visuals, or audio formats where literacy is low.
- **Pre-approved message templates**: Develop and localize standardized alert messages (based on JMD/NCSCM guidance) for various risk levels and hazards.
- **Testing and feedback loops**: Regularly conduct **simulation exercises and community feedback sessions** to test infrastructure, identify gaps, and improve system reliability.

- JMD and NCSCM align around the use of **liaison officers and focal points** to ensure they are fully trained and refreshed to receive information on weather and climate and early warning system (EWS) and work with other actors to act and respond.
- Further exploration of the **dissemination channels of weather information** is required from point of origin (JMD) through government channels as well as understanding the reach of weather information dissemination through social media.

Preparedness and Anticipatory Actions:

- **Institutionalize DRR within municipal systems** by establishing dedicated departments or focal units, with clear roles, responsibilities, and continuity plans. Jahez can coordinate closely with MoLA initiatives to strengthen Municipal DRR and preparedness.
- JMD, NCSCM and MOLA with municipalities can **pilot accompanying guidance and advisory actions** and 'test early warnings' to refine and ground truth messages for different forecasts and weather hazards.
- Explore opportunities for co-production of localized **forecast-based early action** plans to respond to prioritized hazardous and impactful weather.
- Invest in **training and capacity building** of municipal staff on DRR principles, risk communication, and emergency response planning.
- Support municipalities in preparing **public awareness campaigns**, especially in vulnerable areas, to strengthen community understanding and response behavior.
- Municipalities should inventory and cost resources required for shelters, basic equipment, and early warning dissemination tools and seek support through partnerships with national and international actors.

6. Conclusion

The Jahez consultation workshop provided considerable insight into the status of weather and climate information systems and EWS and the status of access and utilization across departments and to subnational levels in Jordan. Several critical recommendations were made from multiple sources that have been synthesized in this workshop report. However, many of the recommendations are beyond the scope of the Jahez project to address individually. Institutionalization of these recommendations will require commitments and engagement from across actors and levels.

The insights, findings and recommendations will inform a final landscape mapping exercise undertaken by Jahez. Key findings will be presented at the next steering committee meeting to be held later in the year. It is also proposed to convene a technical working group on weather and climate information and early warning systems to advance the recommended actions highlighted in this workshop. This will be proposed by the next steering committee, and membership and oversight agreed.

Annexes

Annex A. Participant Recommendations.

During the closing of the consultation meeting, participants were asked to share their key recommendations and next steps anonymously on a note paper. These have been consolidated and presented below:

Stakeholder	Key Recommendations
Al-Azraq Municipality	• Coordinate with relevant governmental institutions to benefit from existing climate-related platforms, trainings, and initiatives. • Provide **capacity-building** support at multiple levels, particularly in **institutional development and disaster management**. Establish a **dedicated municipal unit** for DRR, staffed with trained personnel and equipped with financial and technical support. • Strengthen coordination with other actors working on **climate resilience** within the municipality
Al-Ramtha Municipality	• Develop a **unified national platform** for early warning and climate response, accessible to all municipalities. • Conduct **training workshops** for municipal teams on early warning systems and preparedness planning.
The Cities and Villages Development Bank (CVDB)	• Contract experienced **early warning system implementers** to complement Jahez project activities. • Ensure strategic engagement with the **National Center for Security and Crisis Management (NCSCM)**.
Jordan Meteorological Department (JMD)	• Adopt the **European Centre for Medium-Range Weather Forecasts (ECMWF)** model to enhance accuracy. • Establish a **weather broadcast studio** and provide **visualized professional weather programs**. • Install a **weather radar system in southern Jordan**. • Use **automated sensors in flood-prone areas** to support real-time monitoring. • Promote exclusive reliance on **official JMD forecasts**, avoiding mixed or unofficial sources. • Develop an **alert platform** (e.g., SMS, broadcast) for climate warnings. • Ensure warnings are **impact-based** and clearly communicate **expected consequences**. • Train **JMD liaison officers** to contextualize forecasts with local climate realities.

continued >>>

continued

Stakeholder	Key Recommendations
General Recommendations	• Tailor interventions to the unique challenges, contexts, and resource limitations of each municipality. • Conduct introductory workshops on the role of NCSCM in disaster risk management. • Identify opportunities and long-term projects that ensure the sustainability of climate interventions. • Prioritize practical, implementable solutions with measurable outcomes. • Maintain continuous coordination with NCSCM for national-level DRM/EWS activities. • Engage international institutions (e.g., WFP, UNDP) in supporting national EWS planning. • Assess the mandate and capacity of local institutions before formal partnerships. • Foster community-based DRR by involving volunteer groups and local actors currently outside municipal frameworks. • Consult communities directly to understand their climate vulnerabilities and needs. • Build trust and awareness within communities while identifying priority risk hotspots. • Coordinate with government bodies, private sector actors, and NGOs to ensure a multi-stakeholder response to climate risks. • Collaborate with Ministry of Water and Irrigation (MWI) and Ministry of Local Administration (MoLA) on risk assessments and mapping. • Avoid public confusion by relying on a single, authoritative weather information source. • Work with Mercy Corps on the design and implementation of Nature-based Solutions (NbS), particularly to address flooding and heatwaves. • Involve communities and stakeholders in designing soft interventions such as awareness campaigns and behavioral tools. • Strengthen national coordination mechanisms between actors engaged in DRM and climate adaptation. • Collaborate with municipalities to improve preparedness, emergency planning, and resource mobilization. • Develop localized Early Warning Systems (EWS) that reflect municipal realities. • Establish clear, pre-agreed action protocols between JMD, NCSCM, municipalities, and community representatives for emergency response

Annex B. Photo Gallery.

photo: Ala'a Homaidan/IWMI

photo: Ala'a Homaidan/IWMI

photo: Ala'a Homaidan/IWMI

photo: Ala'a Homaidan/IWMI

photo: Ala'a Homaidan/IWMI

photo: Ala'a Homaidan/IWMI

photo: Raneem/Scope Lines

Annex C. Participant List.

Organization	Number of participants
New Azraq Municipality	1
Cities and Villages Development Bank (CVDB)	1
Foreign, Commonwealth & Development Office, UK (FCDO)	1
International Water Management Institute (IWMI)	6
Greater Irbid Municipality	2
Jordan Meteorological Department (JMD)	5
Mercy Corps	2
Met Office UK	**3**
Ministry of Environment (MoEnv)	2
Ministry of Local Affairs (MoLA)	1
Ministry of Water and Irrigation (MWI)	1
National Center for Security & Crises Management (NCSCM)	1
Greater Al-Ramtha Municipality	3
World Food Programme (WFP)	1
Total participants	**34**

International Water Management Institute

The International Water Management Institute (IWMI) is an international, research-for-development organization that works with governments, civil society and the private sector to solve water problems in developing countries and scale up solutions. Through partnership, IWMI combines research on the sustainable use of water and land resources, knowledge services and products with capacity strengthening, dialogue and policy analysis to support implementation of water management solutions for agriculture, ecosystems, climate change and inclusive economic growth. Headquartered in Colombo, Sri Lanka, IWMI is a CGIAR Research Center with offices in 16 countries and a global network of scientists operating in more than 55 countries.

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