

International Consultant
EARLY WARNING ASSESSMENT AND TRAINING EXPERT/S

Project/Outcome Information	
Project title and Outcome title	Mosul Dam Emergency Preparedness in Iraq (MDEP) UNSDCF OUTCOME INVOLVING UNDP: 4.1. Strengthened and resourced policies and frameworks are implemented for managing natural resources (including transboundary issues), developing renewable resources, and increasing resilience to climate change, environmental stress and natural hazards, and human-induced and natural disasters. Goal 13: Take urgent action to combat climate change and its impacts. TARGET_13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries.
Country	Iraq
Geographical coverage	Nationwide
Duty Station	Homebased with travel to Baghdad and Erbil
Assignment Duration	Start 1 January 2022
	Planned end 30 th May 2022
Implementing party	United Nations Development Programme
Assignment Start Date	1 st January 2022

1. Project Background

In 2020-2021 large areas in Iraq, Syria, Turkey and the Caucuses are undergoing a major drought which is believed the most severe drought in the past 25 years. In Iraq, the rainfed agricultural heartland of Ninewa, Salah Al-Din, Diyala, Kirkuk, Erbil, Sulaimaniyah and Duhok are severely affected, thereby causing losses to agriculture, livestock, food production, livelihoods and water supply for millions. The growing water scarcity and droughts have put a large population at risk and would have severe social, economic and environmental impacts. The wellbeing of vulnerable communities will be at-risk of growing food and water insecurity, loss of livelihoods due to effect on agriculture and livestock, malnutrition and waterborne diseases, loss of ecosystems and growing desertification. Growing displacement has been observed following drought incidents, and due to water scarcity in north, central and south of Iraq leading to rural-urban migration.

In the recent past, Iraq has experienced numerous droughts including in 2000, 2001, 2008, 2009, 2012, 2014 and 2018. Climate change studies show that rainfall in Iraq has decreased and will further reduce, and droughts are becoming more frequent and severe. The duration of specific drought events is also becoming longer due to consistent rain failures or lower rains year after year. In general, 30 % of the Iraq's water needs are met from the rainwater, while remaining 70 % from the river flows. A drought year therefore has a significant impact upon overall water supply, especially for the agriculture sector. Geographically, northern Iraq (Ninewa, Diyala, Salah Al-Din, Kirkuk), the breadbasket of Iraq is primarily rainfed along with the Kurdistan region relying heavily on winter rains for farming and livestock.

UNDP Iraq has launched a drought preparedness and risk reduction project in order to help Iraqi government and communities to face the growing drought risks more effectively through drought preparedness and risk reduction approaches. The intermediate outcome of the Project is "Reduced vulnerability, poverty and displacement from droughts in most at-risk communities of Iraq."

The key areas of intervention include:

- a. Develop advanced early warning systems, thereby allowing time to responders and communities to take a timely action against an impending drought emergency. Capacities of the meteorological service will be strengthened for effective weather monitoring and producing short, medium and long term forecasts with good accuracy, as well as sharing of the forecasts with users, the emergency responders and communities in an easy to understand language. Training will be provided by global experts to the staff of meteorological service on most advanced weather forecasting technologies and it will be linked to the relevant global institutions.
- b. Strengthening inter-sectoral coordination between the meteorological services and response departments including the agriculture, water resources, environment, civil defense, the JCMC, JCC and the provincial governor's offices. The aim would be to promote information sharing, stronger cooperation and planning against drought events. A drought early warning and response committee will be setup with participation of meteorological services and response departments. The weather forecasts will be shared by the Meteorological department with the users and translated into understandable jargon so that the user departments can take preparedness action using the short, medium and long-terms weather forecasts.
- c. Promote a culture of evidence-based contingency planning and preparedness action to deal with droughts. Using the weather forecasts produced by the Meteorological department and analyzed by the national early warning committee, the departments of agriculture, water, environment and the provincial governor's offices, as well as civil defense and health etc would be involved preparing departmental contingency plans and provincial contingency as to how to reduce the impact of an impending drought event upon the at-risk communities and the relevant sectors. The sectoral ministries and provincial governors will be responsible for timely implementation of the respective contingency plans. Scientists and contingency planning experts would provide technical advice and training on drought contingency planning to the user departments.
- d. Promote community awareness and preparedness by establishing farmer schools and through electronic and social media. Model farmer schools will be set-up in target governorates. The farmers will receive timely early warning in easy-to-understand messages advising the actions they could take to deal with an impending drought event, delayed rains or low or high amount of rainfall. The farmers will also be provided with advisory from agricultural extension workers concerning their options for planting based on the specific localized scenarios they face in terms of rainfall. The farmers will be provided with relevant seed varieties in case they are locally unavailable. The experiences and lessons learnt from this pilot would be shared with local and national stakeholders in order to introduce such practices at a wider scale.

2. Assessment Purpose, Scope and Objectives

The development of an effective weather monitoring, drought forecasting and early warning system is a very important element of the Project. At present Iraq has limited drought forecasting and early warning capacities due to: i) weak weather monitoring infrastructure, ii) low scientific knowledge and skills, and iii) the lack of access to latest early warning technologies and networks. Four institutions have primary responsibilities with regards to maintenance of the weather and hazard monitoring networks, and drought forecasting and early warning including; the Iraq Meteorological Service, the Ministry of Agriculture, the Ministry of Water Resources and the Ministry of Environment.

Before any capacity development interventions could be implemented, it is crucial to assess the existing institutional capacities for weather monitoring, drought forecasting and early warning so that the institutional capacity development needs could be identified both in terms of hardware needs and organizational and human resources needs. An important complimentary aspect is the assessment of training needs in order to develop a baseline of the existing knowledge and skills of the experts at the target entities and identify areas in which knowledge and skills need to be further developed.

2.1. Assessment purpose

The Assessment is being undertaken to:

- Establish a baseline of the existing weather monitoring, drought forecasting and early warning capacities which Iraq has in terms of institutional, policy, physical and technical resources.
- Define areas of critical gaps and priority needs for institutional capacity development of the departments concerned with drought early warning for an end-to-end early warning system, including hardware support for hazard monitoring infrastructure and technical advisory on policies, protocols, guidelines etc.
- Describe priority needs for training and human resource development with regards to weather monitoring, drought forecasting and early warning capacities with the aim of developing a training curriculum subsequently.

2.2. Scope of Assessment

The assessment will be conducted between January-March 2022. It shall include two components, i) an overall Institutional Assessment, and ii) a Training Needs Assessment. The assessment/s shall involve the four relevant institutions, the Iraq Meteorology Service, the Ministry of Agriculture, the Ministry of Water Resources and the Ministry of Environment.

The assessment shall include review of relevant documents, policies, existing reports, as well as survey questionnaires with staff and interviews with the management and selected staff members in order to formulate a comprehensive picture of the existing capacities, gaps and priority needs.

While the review of documents and survey questionnaires could be completed using remote modalities, it is desirable that the experts shall personally travel to Iraq to conduct in person interviews with the relevant senior officials and staff of the four entities. However, in case travel is hindered due to any security reasons or crisis; i.e. Pandemic restrictions, the interviews could be conducted by using online conferencing platforms.

Broadly, the review of documents and survey questionnaires shall be completed in January. The analysis of survey questionnaires and the in-person interviews shall be carried out in February. The draft assessment/s report shall be submitted in early March (latest by end of the first week). UNDP shall provide feedback on the report by Mid-March (end of second week), and the final report shall be submitted latest by end of the third week of March 2022.

2.3 Assessment Objectives

- To determine the existing capacities, define strengths and weaknesses and describe the needs for institutional development, including policies, guidelines, physical infrastructure for hazard monitoring, and human resources.
- To develop recommendations on institutional capacity development especially on physical infrastructure requirements, guidelines and policies and institutional networking to access latest warning technologies and forecasts.

- To define the existing state of knowledge and skills of the technical staff involved in weather monitoring, drought forecasting and early warning systems, and describe the areas of knowledge and skills gaps for designing a training programme.

3. Assessment Team

It is expected that a multi-sectoral team would be required to conduct the activities. Therefore, UNDP seeks a Team Leader for the assignment together with team members qualified in the relevant disciplines. The size of the team and the discipline/s of team members is a judgement call for the Team Leader. CVs and responsibilities/role of the different team members with regards to the different activities shall be clearly described in a table, including number of days for each expert.

4. Assessment Methodology

The Assessment methodology¹ will include the following data collection tools:

- o Desk review of relevant documents of the target entities
- o One- to-one interviews with management of the target entities and the technical staff
- o Interviews with selected user departments/stakeholders; PMNOC, JCMC, JCC, provincial governments of Anbar, Ninewa, Diyala, Baghdad, Erbil and Sulaimaniyah.
- o Discussions with the UNDP Energy, Environment and Climate change team
- o Discussions with UN agencies and other international/national organizations dealing with drought preparedness and response; FAO, WFP, IOM and UNOCHA

The assessment will use a mixed method to collect data, which includes the following: i) desk reviews of key documents (such as: technical reports, policies, guidelines on drought early warning, preparedness and response), other relevant research, reference materials, ii) survey questionnaires to be filled by the staff of the target entities; and iii) interviews and meetings with relevant stakeholders, as listed above.

Triangulation of data shall be done through discussing multiple perspectives in order to strengthen the assessment findings from various aspects, and to facilitate validation of data through cross verification from different sources.

If COVID-19 health pandemic related international travel restrictions and related containment measures are relaxed a visit Baghdad and Erbil will be carried out to meet the relevant stakeholders. Field work related logistical arrangements within Iraq will be made by the UNDP. The consultant will be responsible for his own international travel and accommodation in Baghdad and Erbil. Assistance will be provided by the UNDP Iraq in organizing local travel and facilitating schedule of interviews, when and where required. Alternatively, If COVID-19 related international travel restrictions are not relaxed, the interviews will be conducted using virtual modalities.

All analysis must be based on observed facts, evidence, and data. Findings should be specific and concise and supported by information that is reliable and valid. The final methodological approach including desk review, survey and interview schedule/field visits to be used in the assessment should be clearly outlined by the Consultant as part of the bid package, which could be later on revised based upon the field situation and in consultation with UNDP.

5. Assessment Products (Key deliverables)

The consultant is expected to deliver the following outputs/ deliverables.

- o **Inception Report** : Based on the terms of reference (TOR) and the desk review outcomes, the consultant is expected to develop an inception report. The report shall include Preliminary findings of the desk

¹ Please refer to the guidance: https://www.usaid.gov/sites/default/files/documents/USAID-BHA_DRAFT_Emergency_ME_Guidance_April_2021.pdf

- review, and revised (if needed) schedule of assessment activities, and revised survey questionnaire/s and list of stakeholders to be interviewed.
- **Institutional Survey Report** to be submitted to UNDP for review following the completion of survey with the staff of target entities. It shall describe the in addition to providing information on the number and type of officials surveyed from each entities, the key findings from the survey in terms of existing capacities, key gaps and priority needs for capacity development.
 - **Institutional Assessment Report** Following the completion of desk review, surveys and interviews the Institutional Assessment Report shall be submitted. It shall detail out the existing capacities, gaps and priority needs in terms of policies, guidelines, physical infrastructure for weather/hazard monitoring, organizational systems, and human resources. The assessment shall use the end-to-end early warning framework which involves the four aspects of Hazard monitoring, forecasting, early warning communication and preparedness/response action. The report shall be revised to address any feedback and comments provided by the UNDP.
 - **Training Needs Assessment Report** shall describe the state of existing knowledge and skills with relation to weather monitoring, drought forecasting and early warning. It shall provide analysis of gaps, and priority needs for technical capacity development of different levels of officials, but most importantly the data collectors, forecast and warning scientists, as well as those related to communication of warning. The report shall be revised to address any feedback and comments provided by the UNDP.
 - **Training curriculum** shall be prepared for scientific training on weather and hazard forecasting and early warning, which will be conducted for the Iraqi stakeholders. These would include the Iraq Meteorological Service, the Ministry of Environment, the Ministry of Water and the Ministry of Agriculture. The training curriculum shall include i) Participants Manual (per session reading materials/workbook), and ii) power point presentations.
 - **Training Course** shall be conducted in Baghdad/Erbil for the scientists and relevant experts from the entities listed under the Training Curriculum activity. A total of 25-30 experts may attend the training.
 - **Briefing to the UNDP about the Assessment Results** the findings of both the institutional and training needs assessment shall be presented to the UNDP management and the Energy, Environment and Climate Change team.

It should be noted that the above list of deliverables, together with the implementation time-frame (see section 8) might be subject to review and revision by UNDP in discussion with the Consultant in the event of unexpected changes to the context/ working environment in Iraq during the consultancy period.

In line with the UNDP's financial regulations, when determined by the Country Office and/or the consultant that a deliverable or service cannot be satisfactorily completed due to the impact of COVID-19 and limitations to the evaluation, that deliverable or service will not be paid.

Due to the current COVID-19 situation and its implications, a partial payment may be considered if the consultant invested time towards the deliverable but was unable to complete it, due to circumstances beyond his/her control.

6. Management and implementation arrangements

The assignment is commissioned by UNDP Iraq's Energy, Environment and Climate Change Pillar (EECC). The main UNDP Focal Point will be the Programme Manager (PM) for Drought Preparedness and Risk reduction project of the EECC pillar. The PM will serve as the focal point to provide both substantive and logistical support to the Consultant/s. Assistance will be provided by the PM to make any refinements to the work plan of the selected Consultant/s (i.e. coordination with target entities, access to relevant documents, survey coordination and organization of interviews).

This TOR shall be the basis upon which compliance with assignment requirements and overall quality of services provided by the Consultant will be assessed by UNDP.

As part of the assignment:

- UNDP will provide office space with access to the internet and printer when in-country (Baghdad/Erbil).
- UNDP will provide the following list of additional documents to the selected Consultant
 - Any relevant reports on early warning system in Iraq
 - Documents on water resources management agriculture, environment
 - Reports and documents on drought risks and drought risk management in Iraq
 - Other relevant documents (including training manuals, technical guidelines etc)
- The Evaluation Consultant is expected to
 - Have/bring their laptops, and other relevant software/equipment.
 - use their own mobile and personal email address during the consultancy period, including when in-country.
 - make their own travel arrangements to fly to Baghdad and transportation arrangements outside work hours. UNDP will make arrangements for in-country travel from Baghdad to Erbil and any other locations, as required.
 - UNDP will make arrangements for interpretation services locally, as required.

7. Locations and timeframe for the Assessment process

The detailed Assessment workplan will be agreed upon between the UNDP and the selected Consultant/s. The Assessment will take place between 1st January 2022 – 20th March 2022, including a combination of home-based work and one (1) in-country visit, which includes travel to Baghdad and Erbil. The security situation in each location will be reviewed to make a decision on the country visit. The assignment and final deliverable are expected to be completed no later than 20th March 2022 with the details as described in the below table.

Indicative work plan—timeframe for Assessment deliverables

ACTIVITY	ESTIMATED # OF DAYS	EXPECTED DATE OF COMPLETION	PLACE
Inception Report	10	15 th January 2022	HOME BASED
Institutional Survey Report	15	05 th February	HOME BASED
Institutional Assessment Report	25	10 th March 2022	INCOUNTRY AND HOME BASED
Training Needs Assessment Report	15	30 th March 2022	INCOUNTRY AND HOMEBASED
Training Curriculum	25	31 st April 2022	HOME BASED
Training Course	12	20 th May 2022	INCOUNTRY AND HOME BASED
Briefing to UNDP on the Assessment Results	1	25 th May 2022	HOMEBASED

8. Deliverables and Payment Schedule

The consultant is expected to deliver the following deliverables. It should be noted that the following list of deliverables might be subject to review and revision by UNDP in discussion with the consultant in the event of unexpected changes to the context / working environment in Baghdad/ Iraq during the consultancy period. Payments will be made upon acceptance and approval by UNDP of the planned deliverables, based on the following tentative payment schedule:

Terms of Payment	Percentage (%)
<p>(i) Upon the satisfactory completion and acceptance of Inception Report including:-</p> <ul style="list-style-type: none"> o Updated Assessment methodology and work plan o Institutional Assessment Report template o Training Needs Assessment Report Template o Questionnaire/s for Survey on institutional and training needs assessment o List of desk review documents 	10%
<p>(ii) Upon the satisfactory completion and acceptance of the Institutional Survey Report</p> <ul style="list-style-type: none"> (a) Description of officials surveyed (b) Findings of the survey (c) Description of issues requiring further investigation through interviews 	10%
<p>(iii) Upon the satisfactory completion and acceptance of the Institutional Assessment Report covering following key aspects:</p> <ul style="list-style-type: none"> (a) Methodology adopted for the assessment (b) List of documents reviewed, people survey and interviewed (c) Key findings of the assessment detailing the existing institutional capacities for weather monitoring, drought forecasting and early warning (d) Defining gaps in institutional capacities (e) Describing priorities in the short and medium time scale (f) Cost estimation of the short and medium priorities (g) Globally available opportunities to develop capacities, including access to global early warning information systems and centers, technical advisory support opportunities etc 	20%
<p>iv) Upon the satisfactory completion and acceptance of the Training Assessment Report covering following key aspects:</p> <ul style="list-style-type: none"> a) Methodology adopted for assessment b) List of documents reviewed, people survey and interviewed c) Key findings of the assessment detailing the knowledge and skills level existing among the institutions and officials d) Defining gaps in knowledge and skills of institutions and officials e) Describing training priorities in the short, medium and long-term time scale f) Cost estimation of the short and medium training priorities g) Globally available opportunities for training, which Iraq can benefit from preferably with zero costs or low costs 	15 %
<p>v) Upon the satisfactory design and acceptance of the training curriculum with following:</p> <ul style="list-style-type: none"> a) Participants' Manual – which includes overall course objectives, methodology and per session reading materials, workbook, sources for further reading on the subject b) Power-point presentations for each session in English 	15 %
<p>vi) Upon the satisfactory conduct and acceptance of the training curriculum with following:</p> <ul style="list-style-type: none"> a) In person training conducted at a venue in Iraq (preferably Baghdad or Erbil) 	20 %

b) A training report submitted	
(iv) Briefing to UNDP on the Assessment Results	10 %
Total	100 %

***N.B Travel and accommodation:**

It is anticipated that a total of 27 days travel/stay in Iraq will be required, including travel days. The bidder can propose to combine travel for different activities in order to reduce the number of travel days.

All envisaged travel costs must be included in the financial proposal. This includes all travel within country or outside duty station/ repatriation travel. In general, UNDP does not accept travel costs exceeding those of an economy class ticket.

In cases where UNDP arranges and provides travel and/or accommodation due to security and other reasons, it should be noted that these costs will be deducted from the payments to the Consultant.

In the case of unforeseeable travel, payment of travel costs including tickets, lodging and terminal expenses should be agreed upon in writing, between UNDP and selected Consultant prior to travel and will be reimbursed.

9. Qualifications and required competencies

Education

Minimum of Master's degree in meteorology, environmental management, disaster risk management, agriculture or in other relevant subjects. In addition, the Consultant must possess the following competencies listed below.

Work Experience

- At least 10 years' experience in weather monitoring, forecasting and early warning systems is required.
- At least 3 years of experience in assessment of institutional capacities and training needs for early warning on hydrometeorological disasters is required.
- At least 3 years of experience in institutional capacity development and training on early warning systems with regards to hydrometeorological disasters is required
- Extensive experience in writing analytical research reports/project/project assessment reports is required (previous assessment reports shall be submitted as part of the application);
- Experience in working on capacity building projects for the UN or other international development organizations in an international setting is an asset.
- Demonstrated experience of working with government institutions in post-disasters settings is an asset
- Experience of working in crisis countries is an asset
- Experience in the usage of office software packages (MS Word, Excel, etc) is required.

Corporate Competencies

- Demonstrates commitment to the UN's values and ethical standards.
- Promotes the mission, vision and strategic goals of UNDP.
- Displays cultural, gender, religion, race, nationality and age sensitivity and adaptability.
- Treats all people fairly and with impartiality.

Functional Competencies

- Consistently approaches work with energy and a positive, constructive attitude.
- Identifies priorities, allocates time and resources, foresees risks and allows for contingencies.
- Ability to work under pressure and to meet deadlines.
- Demonstrates excellent oral and written communication skills.
- Demonstrates openness to change and ability to manage complexities.

- Self-reliant and able to work as a part of a multi-cultural team in a stressful.
- Establishes and maintains productive partnerships with clients by gaining their trust and respect.

Language

- Fluency in spoken and written English with good report writing skills is required. Samples of previously written work shall be submitted with the application. Fluency in spoken Arabic will be considered as an advantage.

Criteria for Evaluation of Technical Proposals

Submitted proposals will be assessed using Cumulative Analysis Method. The proposals will be weighed according to the technical proposal (carrying 70%) and financial proposal (carrying 30%). Technical proposals should obtain a minimum of 70 points to qualify and to be considered. Financial proposals will be opened only for those application that obtained 70 or above in the technical proposal. Below are the criteria and points for technical and financial proposals

Evaluation Criteria		Max. Point 100	Weight
Technical	<p>Criteria A: relevance and responsiveness of candidate's past experience, Qualification based on submitted documents:</p> <ul style="list-style-type: none"> ○ Master's degree in meteorology, environmental management, disaster risk management, agriculture or in other relevant subjects. (10 points) ○ At least 8 years' experience in weather monitoring, forecasting and early warning systems in required (10 points) ○ At least 3 years of experience in assessment of institutional capacities and training needs for early warning on hydrometeorological disasters is required. (10 points) ○ At least 3 years of experience in institutional capacity development and training on early warning systems with regards to hydrometeorological disasters is required (10 points) ○ Extensive experience in writing analytical research reports/project/project assessment reports is required (previous assessment reports shall be submitted as part of the application) (10 points) ○ Experience in working on capacity building projects for the UN or other international development organizations in an international setting is an asset. (5 points) ○ Demonstrated experience of working with government institutions in post-disasters settings is an asset (10 points) ○ Experience of working in crisis countries is an asset (5 points) 	70 Points	70%
	<p>Criteria B: relevance and responsiveness of candidate's approach, technical proposal and submitted work plan and Methodologies:</p> <ul style="list-style-type: none"> ○ Methodology on how the consultant will conduct the required tasks, including time plan (10 points) ○ Description of the Added Value of the Consultant to the tasks (10 points) ○ Experience in the usage of computers and office software packages (MS Word, Excel, etc) (10 points) 	30 Points	

Evaluation Criteria		Max. Point 100	Weight
Financial	<u>Lowest Offer / Offer*100</u>		30%
Total Score = (Technical Score * 0.7 + Financial Score * 0.3)			

Weight Per Technical Competence	
5 (outstanding): 96% - 100%	The individual consultant/contractor has demonstrated an OUTSTANDING capacity for the analyzed competence.
4 (Very good): 86% - 95%	The individual consultant/contractor has demonstrated a VERY GOOD capacity for the analyzed competence.
3 (Good): 76% - 85%	The individual consultant/contractor has demonstrated a GOOD capacity for the analyzed competence.
2 (Satisfactory): 70% - 75%	The individual consultant/contractor has demonstrated a SATISFACTORY capacity for the analyzed competence.
1 (Weak): Below 70%	The individual consultant/contractor has demonstrated a WEAK capacity for the analyzed competence.

Annexes

This section presents additional documents to facilitate the proposal preparation by the Consultant.

Annex 1: Code of conduct forms.



Adobe Acrobat
Document

The Consultant Firm and each member of the Assessment Team consultant will be requested to read carefully, understand and sign the "UN Code of Conduct."

Annex 2: Dispute and wrongdoing resolution process and contact details (will also be provided at the time of signing the contract)