



International Telecommunication Union
Telecommunication Development Bureau

“Deployment of Early Warning System for Floods Disaster in the Arab LDCs”

Location(s)	One of LDCs in the Arab Region
Expected duration	1 year
Estimated Budget	Total: USD \$ <u>400,000</u>
Implementing Agency	International Telecommunication Union (ITU)
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Brief Description:

Within the framework of the context of ITU-D Dubai Action Plan that was adopted by the ITU’s World Telecommunication Development Conference held in Dubai, UAE in 2014 and in implementing one of the regional Initiatives of Arab States that adopted by the WTDC-14, which is “Use of ICTs for transition to Smart and Sustainable Development and Protection of Environment”.

The project aims to deploy an Early Warning System (EWS) equipments to mitigate the impact of natural disasters, strengthening national early warning and operational response capacities (disaster preparedness including early warning, disaster response/relief, and post disaster reconstruction), upgrading infrastructure of emergency rescue facilities and strengthening local/national and regional cooperation through advocating increased dialogue and cooperation.

The project is to be implemented in one of the Arab LDCs and could be replicated in the rest of the Arab countries.

1. BACKGROUND AND CONTEXT

In the last three decades more than 164,000 people in the Arab region have been killed by natural hazards, which caused damage estimated at US\$19.2 billion¹. The Telecommunications/ICTs applications and tools have a crucial role to play in saving people lives. In March 18, 2015, the World Conference on Disaster Reduction adopted the “The Sendai Framework for Disaster Risk Reduction 2015-2030: Building the Resilience of Nations and Communities to Disasters”. This included clear references to the importance of early warning systems, and encouraged the development of “early warning systems that are people centered.

The Arab region was recently considered as one of the most vulnerable/disaster areas in the world. Some Arab LDCs have been negatively affected by floods for many years with more intense occurrences during the rainiest seasons.

The region is also extremely fragile and sensitive to the effects of climate change. Climate change is gradually increasing the frequency and magnitude of extreme weather events and natural hazards in the region, which has led to higher levels of risk and uncertainty. The Early Warning System as one of the ICTs major element of disaster risk reduction. It prevents loss of life and reduces the economic and material impact of disasters.

Early warning systems provide communities with relevant, typical information on environmental conditions so that communities can assess levels of risk and make informed decisions to protect their safety. Furthermore, most if not all, of these EWS are self-monitored by the villagers themselves, which empowers communities and insures that the community itself is a key stakeholder in the EWS cycle. Thus, the EWS are most effective when there are multiple monitoring systems in place. Weather is a complex phenomenon; this monitoring overlap guarantees that the myriad mitigating environmental factors present are all accurately assessed for potential risk and danger.

¹ <http://www.irinnews.org/report/97685/disaster-risk-reduction-in-the-arab-world>

To be effective, early warning systems need to actively involve the communities at risk, facilitate public education and awareness of risks, effectively disseminate messages and warnings and ensure there is constant state of preparedness.

2. Overall Objective

The objective of this project is to establish an Early Warning System (EWS) in one of the Arab Least Developing Countries. The EWS will be used for disseminating alerts on impending disasters, for public safety and for enhancing information dissemination in designated areas. The system will also facilitate exchange of information between local communities and government agencies.

Therefore, the core objective of this Project is to enhance the resilience of vulnerable communities in country/region and create a community based Early Warning System.

3. Project Strategy

The proposed project is in line with regional initiative “Use of ICTs for transition to Smart and Sustainable Development and Protection of Environment”. The project strategy is aligned to the initiative objective which clearly identified the priorities of the regional initiative in which the project proposal will cover one of them, which is the Early Warning System (EWS). Therefore, the project aims is to provide natural disaster early warning system for one of the Arab LDCs, to be used for the rapid alerting and warning of key public officials and the public when disaster is impending, for public safety and for enhancing information dissemination in designated areas.

It also seeks to provide communication capabilities necessary to meet the operational requirements of local response and recovery efforts, and enabling a continuous flow of information throughout the emergency or disaster period. This will be achieved by integrating mass alerting systems, remote sensing, geographical information systems, and communication systems.

The project will be implemented in phases starting with two centers as pilot test in one of the Arab LDCs. Based on the success of the project, the project will be replicated.

The project is based on assumption that well equipped community center with computer information system is in place and the ITU will design and recommend an appropriate natural disaster early warning system, procure equipment under its rules and procedures, and implement the project in coordination and collaboration with beneficiary country.

4. Expected Results

By implementing this project, the following results are expected:

- 1) Risk assessment and monitoring capabilities for better socio-economic development programming.
- 2) National early warning capacities strengthened through developing infrastructure, rapid risk analysis, and information dissemination capacities
- 3) National response capacities strengthened through upgrading infrastructure of Emergency Rescue.
- 4) Facilitate the Local, National and Regional cooperation advocated for increasing dialogue and cooperation in disaster risk reduction

5. Indicators

- Reduction in the number of lives lost in the selected country due to early warning.
- Reduction of financial losses, compared to past flooding disasters.
- Enhanced capacity in Disaster Risk Reduction response.

6. Activities

1. Establishment of a local multi-stakeholder project team.
2. Designing the early warning system.
3. Conducting an awareness workshop on Early Warning System in the beneficiary country
4. Deployment of the EWS Equipment, Software etc.
5. Training on EWS Equipment Operation and Maintenance.

7. Inputs

The project implementation will depend on the successful mobilization of resources (human, equipment's, centers and financial).It is envisaged that the project will require funding to the tune of **US \$ 400,000**. This amount will go towards purchase of EWS hardware and software equipment, engagement of experts and consultants to deploy the EWS equipment's and deliver training, and all other related project administration requirements.

Project funding will be raised from private and public sources within the Region, as well as international funding institutions.

ITU Input:

IN-KIND CONTRIBUTION: ITU will responsible from the purchase of the EWS equipment, provide admins and capacity building to ensure the success of the project.

Beneficiary Country Input:

IN-KIND CONTRIBUTION:

Provide well-equipped community centers with computer information system, supervise the EWS equipment , hosting training programs conducted under the project and Promoting the program in the country.

Partners Input:

CASH CONTRIBUTION: The Partners will provide funding support for the implementation of the project, which is, estimated to US \$ 400,000.

8. Risks

The risks include failure to raise the funding resources required to finance this project. This risk could be mitigated by using the ITU wide network of partners, fundraising activities and ITU activities through which this project could be sold.

Furthermore, political instability in the Region/beneficiary country may influence against resource mobilization efforts or even implementation. In addition, lack of support for the project at national and regional level may hamper the implementation.

9. Sustainability

This project is very viable as there is enough members' rely on disaster management and the use of ICT for this purpose as stipulated in the Arab regional initiative "Use of ICTs for transition to Smart and Sustainable Development and Protection of Environment". To ensure that the project is sustainable, the beneficiary country must show its full commitment to the project and its training activities that will be provided during the project duration to both users and technical staff in the country.

10. Management

The project will be managed by the ITU Project Manager in close collaboration with country counterparts and partners yet to be identified, as well as representatives from local organizations.

The ITU shall be the implementing agency, and shall be responsible for the recruitment of project staff, purchasing the EWS equipment, deployment of EWS equipment.

11. Budget

The proposed budget of the project is USD **400,000** and this includes expert recruitment's, purchase of EWS equipment, EWS deployment, training materials developments and travel.