giz

Deutsche Gesellschaft
für Internationale
Zusammenarbeit (GIZ) GmbH

INTEGRATED DEVELOPMENT OF EARLY WARNING SYSTEMS

Innovation through Partnership

german
cooperation
DEUTSCHE ZUSAMMENARBEIT

GI:DRM
Global Initiative on
Disaster Risk Management

Hydrometeorological Early Warning

Improving public access to early warning for hydrometeorological hazards in the Dominican Republic

To improve public access to early warnings of hydrometeorological phenomena, the Dominican Republic has requested technical assistance from the Climate Technology Centre and Network (CTCN), which is the operational arm of the United Nations Framework Convention on Climate Change (UNFCCC) Technology Mechanism. Based on the results from an initial survey mission it was agreed that the CTCN technical assistance should carry out a process to identify, verify and validate improvements and innovations needed for an effective early warning and information system of natural hazards. Emphasis should be placed on practical applicability, working together with stakeholders and using as a reference point the most vulnerable areas of Santo Domingo.

This initiative should include not only an assessment and the possible introduction of new information technologies, but also the identification of substantive improvements in the contents of early warnings with regard to their comprehensibility and call for action, as well as measures to ensure timely information.

CTCN technical assistance – a portable disaster early warning service in every pocket of Santo Domingo

Expected results from the technical assistance included an analysis of existing Early Warning Systems (EWS) in the region, mapping of the actors involved in these alert systems, as well as an analysis of the processes in place in the existing EWS. Further, a study on potentials and requirements for introducing new information and communication technologies (especially smartphones Apps) for dissemination of early warnings to the public and an action plan including project proposals should be carried out. The technical assistance was implemented by the Deutsche Gesellschaft für Internationale

1	Risk Knowledge: review of existing risk analysis in the project area with an early warning perspective.
2	Analysis of the roles and responsibilities of actors and institutions involved in the early warning system.
3	Analysis of existing hydrometeorological SAT processes, including identifications of gaps and additional requirements.
4	Analysis potentialities and technical requirements to use APPs for early warning an related information dissemination and design of a prototype.
5	An action plan, including proposal profiles for projects agreed upon with the actors involved in the issue.
6	An international conference with donors and regional representatives to present the results of the Response Plan.

Zusammenarbeit (GIZ) in close collaboration with the Dominican Institute of Integral Development (IDDI) and in cooperation with the relevant actors of the Dominican Republic EWS, especially the National Technical Committee for Prevention, Mitigation and Response.

The technological assistance by CTCN followed a participatory and structured process (graphic on the right), which was previously agreed between all partners and included a series of analytical steps based on technical input and participatory analysis workshops. The process has been designed to promote a common understanding of the existing EWS for hydrometeorological hazards among all stakeholders, including the users, and to jointly identify the requirements and necessary adjustments. The process was guided by the UNISDR concept for people-centred early warning systems with an end-to-end perspective.

Additionally, the project performed an analysis of the local conditions to disseminate early warning in the Dominican Republic via a smartphone application (App) and developed recommendations regarding functions and use of an alert App.

In summary, the analysis led to the conclusion that there is a need to improve public access to relevant information in warning situations and that this improvement is not primarily the question of new communication technology (such as an App), but rather is linked to the design of content and products that are disseminated through the SAT to the population. Therefore, it was proposed to review first concepts, processes and products of the EWS in order to achieve a better orientation towards the population and, based on this, to take up the issue of communication technology. The technical assistance has finally led to a description of options for action and project profiles to improve the orientation of the EWS towards the information needs of the Dominican population.

The initiative covers aspects whose relevance is not confined to the Dominican Republic and the Caribbean but that also extends to the wider international community. This allows the project to

serve as an example of how public access to early warning can be improved. These experiences are also relevant for non-hydrometeorological phenomena such as tsunamis.

During an international conference held in Santo Domingo at the end of November 2017, results from the initiative have been presented to national decision maker and international donors to explore possibilities for further implementation. In this context, the Fraunhofer Institute FOKUS presented a demonstrator visualizing a technical solution approach which, by linking a platform with an APP, creates the necessary technological prerequisites for the implementation of the improvements in the warning process.

Further Information:
https://www.ctc-n.org/technical-assistance/projects/community-based
-early-warning-system-every-pocket-santo-domingo-dn