

# InnovationLab

Further your understanding of disaster risk



GLOBAL FACILITY FOR DISASTER REDUCTION AND RECOVERY **GFDRR**

## Code for Resilience

### **Bridging communities for disaster resilience**

Code for Resilience (CfR), a multi-year initiative that works with wide-ranging global partners from the public, private, community, and civic tech sector, aims to build the resilience of communities to natural disasters through innovative use of information and communication technologies (ICTs).

Through a series of virtual and in-person activities, CfR fosters collaboration around the development of relationships, ideas, and tools (both software and hardware) that improve community resilience. CfR is targeted on the ability to identify and reduce natural hazard risk and support responding to major disasters.



### **CfR focuses on fellowship and mentorship programs, local coding events, and professionally-developed solutions that respond to community needs**

CfR fellowship opportunities are designed to engage talented young technologists in strengthening their technical skills and network by building tools to improve the resilience of communities to natural disasters. These fellowships promote the use of open data and open source software to collect, analyze, share, and improve risk data for better decision-making.

The fellowship program typically lasts three months and includes:

#### **1. Identifying the Challenge and Recruiting Participants:**

Code for Resilience works closely with World Bank task teams to identify challenges that can be addressed through using of innovative open source tools and datasets that respond to local disaster risk management (DRM) needs. With the support of local partners, a cohort of CfR fellows are selected based on technical skills and professional aspirations.

- 2. Kickoff Code Sprint and Trainings:** To help fellows frame their proposed solution, kickoff code sprint events are designed to inspire and connect participants to local and international mentors. These events also provide training opportunities on DRM and product development. From here, teams are paired with mentors to work on their selected projects for the weeks to come.
- 3. Mentorship:** The fellows continue to develop tools alongside government partners and the user community while receiving guidance from CfR experts and mentors. This mentorship seeks to help fellows create minimum viable products of high relevance to local needs.
- 4. Evaluation, Review, Tool Training, and Delivery:** At various points of the program, participants and partners can provide feedback on the tools in development to ensure needs are met. Continued engagement of different local stakeholders facilitate institutional buy-in and uptake of the tool at delivery. Training is provided to stakeholders on the use of the tool at the end of the project.



Photo credit: Mark Peter Iliffe

## CfR PROJECT HIGHLIGHTS

- ▶ **Haiti – SMS Lapli:** SMS Lapli, or “SMS rain” in Haitian Creole, is an open source application developed by CfR fellows in Haiti. It is the first module of a national data platform that allows different hydromet networks in the country to work together. SMS Lapli will help the newly-created Hydromet Unit at the Ministry of Agriculture to systematically collect, analyze, archive and disseminate rainfall data from more than 100 agro-meteorological stations across the country.
- ▶ **Tanzania – Fellowship Program:** CfR is engaging six of Tanzania’s brightest young technologists in developing solutions to challenges agreed by local leaders to enhance community resilience. The resulting products are leading to improvement of the QGIS and InaSafe open source platforms, which create flood impact scenarios. These tools and the information generated can be used to inform community level infrastructure improvements and/or evacuation planning.
- ▶ **Togo – FUNctional Estimation (FUNES) Model:** CfR has partnered with the Red Cross Red Crescent Climate Centre to develop an innovative and simple hydrological model embedded in a digital platform to support early warning and early action in Togo’s Mono River Basin. This project, implemented in collaboration with the Togolese National Platform for Disaster Risk Reduction, aims to develop an SMS-based system for rainfall and river level data collection that will become available to the National Meteorological and Hydrological Services.

① More info at <http://www.codeforresilience.org>



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