



Disaster Resilience Plans

The IDRC Project has made a great effort in linking and nurturing social entrepreneurs, to serve as a bridge between local authorities and the community. The entrepreneurs have to develop a relationship with local community leaders and also engage practically with officers in the local authority and technical agencies.

This requires enhancement of their technical capacity, communication and networking skills. In addition, they also need an awareness of relevant policy processes, particularly land-use planning, development control, and emergency management.

Young social entrepreneurs, identified based on selected criteria have been connected to key local institutions, guided in profiling local governance processes, and provided technical information on aspects related to the susceptibility and vulnerability of local communities. This was a pre-requisite for conducting stakeholder consultation in the project’s pilot areas

Face-to-face meetings were held as the older population of local communities are uncomfortable with virtual meetings (see photos on the right). Members of the community in hazard susceptible areas were engaged in sharing their views on existing and expected disaster risks and climate change. They also provided information on how they prepared for disasters, particularly floods. The recovery from disaster events were also discussed.

The inputs from this interaction, and evidentiary support from the IDRC Project, provided a sound basis for developing local-level disaster resilience plans. The local disaster resilience plan was framed according to the prevention, mitigation, preparedness, response, and recovery cycle after an event. Notwithstanding, incorporating such plans into existing governance systems at federal and state levels needs further work.

The entrepreneurs also tested the user-friendliness of the IDRC Crowdsourcing Platform. The feedback received was used to improve the system. Continuous engagement is required to attract more members of the communities to contribute information.



Community Based GIS Applications

The IDRC Project has successfully developed Community Based GIS Applications in collaboration with the Meteorology Department of Malaysia (MMD) and other partners to provide local-level open-access information on climate hazards. The initiative involved the development of a web-based GIS platform, designing the crowdsourcing architecture, and establishing data submission and screening procedures, as well as trials on data flow.

The IDRC Crowdsourcing Platform (Figure 1) provides a mobile crowdsourcing system that allows the public to participate in citizen reporting for flood or landslide events. The system has a backend that can store this data and capabilities to pass this data to a dedicated external system for quality control. The system is also able to retrieve the processed data to be curated for public viewing online.

Mobile users load the IDRC Crowdsourcing Platform web application on their mobile device, such as a smartphone or tablet (Figure 2). They report incidents by taking snapshots of the affected surrounding area. The upload form dialog can be accessed by clicking on the blue button marked with a plus (“+”) sign on the bottom right corner of the screen (see Figure 1).

The photos are uploaded automatically by the web application frontend to its backend. The backend stores the photos as image files in a local data store. The metadata for each image file, including the date, time, and location, is stored in a local database. The stored image data and metadata are displayed in the front end, which is integrated with other features (Figure 3).

The crowd -sourcing architecture has undergone field testing to ensure that the data submission and screening procedures from the field are accurate. Field testing has revealed that local communities are comfortable using digital technology.

Notwithstanding, there is a need to enhance community awareness regarding the hazards that they are exposed to. This will facilitate the transmission of reliable hazard-specific information in the field.

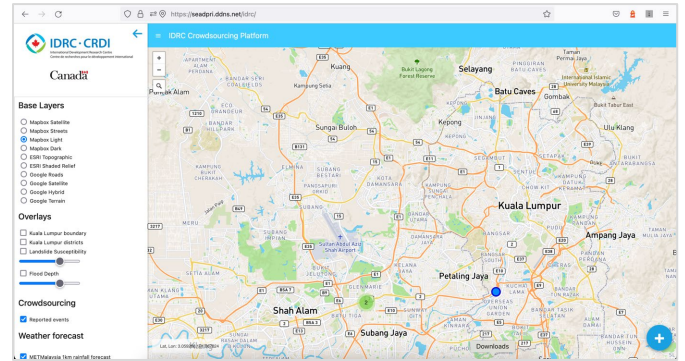


Figure 1: The IDRC Crowdsourcing Platform on page load.

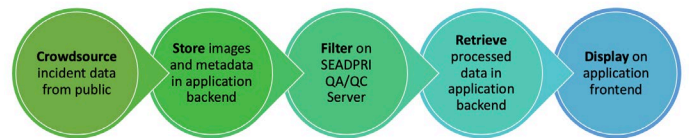


Figure 2: A simplified view of the process flow on the IDRC Crowdsourcing Platform.

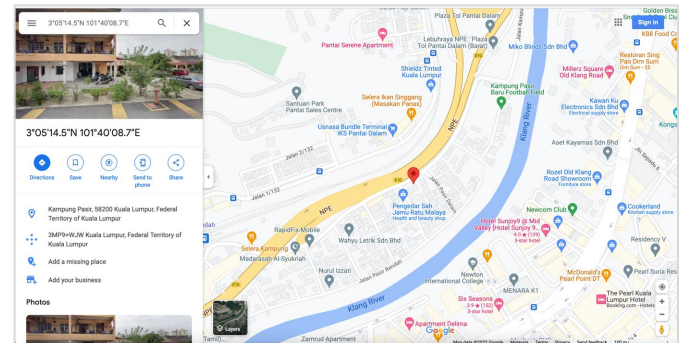


Figure 3: Google Maps is integrated into the IDRC Crowdsourcing Platform to provide the user with more detailed geographic overview of the area surrounding the point of interest.