SHARING DATA: OPEN DATA PLATFORMS

What are Open Data Platforms?

Open Data Platforms provide a central repository to store geospatial data sets that are easy to access and allow for collaboration, sharing and visualization of the data.

As recently as 2014, nearly 20 countries have worked with the OpenDRI team to develop Open Data Platforms for their community. Due to the platforms' free and open nature, global developer communities have formed around the tools and advanced the capabilities of the platforms.

Problem: Critical geographic datasets are difficult to access

Understanding disaster risk requires a combination of many different kinds of information, for example elevation data or the location of vulnerable populations. Yet in many developing countries, geospatial data is fragmented across ministries and partners.

Solution: An easy-to-use, accessible platform that stores datasets

Open Data Platforms collate existing data sets in one easy-to-access, cloud-based platform. Creating a central repository of data sets allows analysts to combine geospatial datasets, map layers and satellite imagery into maps that can, in turn, be imported to other GIS tools and risk modeling software.

These platforms provide:

- A simple interface that allows users to upload and share their map data

- A data library that users can browse or search

- Visualization tools that empower users to create their own maps and analysis

- Variable security permissions to determine who can see the data

GeoNode

GeoNode is the flagship Open Data Platform developed by the OpenDRI team at GFDRR Innovation Lab. The software allows one or more organizations to upload geospatial data sets that comply to open standards to a central location. GeoNodes can also be federated, so that each organization can retain stewardship of their own datasets and open specific data to others from outside the organization via web services.

Nearly 20 GeoNodes are in existence by World Bank client countries, and an additional 43 unaffiliated GeoNodes speak to the power of its open source developer community.
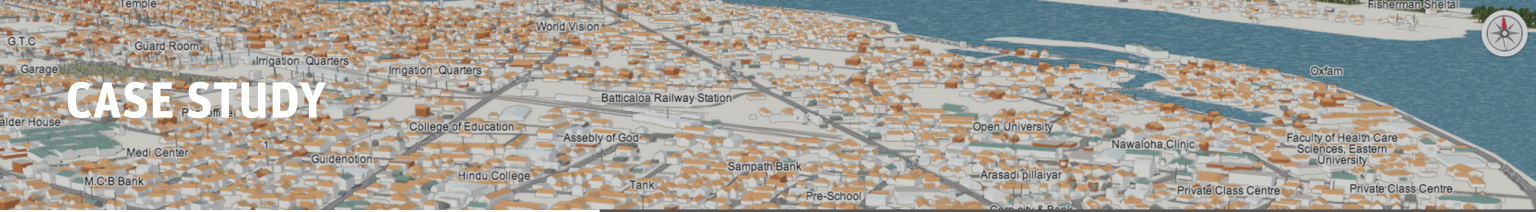
OpenDRI in Sri Lanka

There are currently several OpenDRI projects ongoing in Sri Lanka working to increase access to information, create knowledge, and ultimately to the reduce impacts of disaster and climate risks.

RiskInfo.lk

To enable better disaster risk modeling, the Government of Sri Lanka partnered with GFDRR, UNDP, and OCHA on the development of OpenDRI. A component of that program was to collate data around hazards and exposure and prepare them to be uploaded into a GeoNode called RiskInfo.lk.

Working with the Disaster Management Centre (DMC), the National Survey Department, Department of the Census and Statistics, Nation Building Research Organisation, Information and Communication Technology Agency, Department of Irrigation, several universities, and the international partners, the OpenDRI team supported DMC in the aggregation of data that had been stored in static PDFs, old paper maps, and several databases.

The data

The yearlong program through Open Cities Kathmandu:

- Administrative boundaries
- Hazard layers
- Exposure data

One example of how this newly digitized resource has been used is the Tsunami Inundation Map shown to the left. It combines UNDP and OpenStreetMap datasets.

The data in the RiskInfo.lk GeoNode is currently available to authorized users in the OpenDRI partnership. This transitional state is typical for open data projects, as the partnership reviews data with the parties and affirms that it is ready for release to the public. Some layers may be restricted to authorized users.