

# Capacity Building on Geo- portals in PIC

Geoinformatics Centre, ALT, Thailand

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1. About Geoinformatics Centre, AIT, Thailand
2. Introduction to Project and Our Contribution
3. Web Maps and Geonode
4. Concluding Remarks

# 1. About Geoinformatics Centre, AIT, Thailand

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# Asian Institute of Technology, Thailand

- Graduate Institute founded in 1959
- Aim is to "promote technological change and sustainable development" in the Asia-Pacific region, through higher education, research, and outreach.
- Schools
  - School of Engineering & Technology
  - School of Environment, Resources & Development
  - School of Management

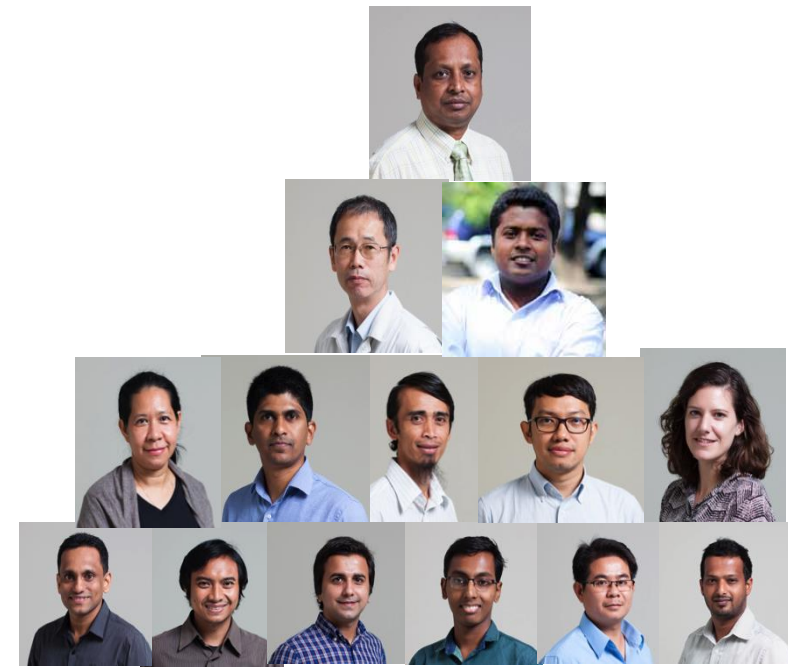


**AIT**  
Asian Institute of Technology



- Over 1,600 Graduate students from 40+ countries
- 14,000 alumni from 74 countries
- 22,000 short-term trainees from 71 countries
- Over 100 faculty members from 26 countries





Geoinformatics Center  
Established in 1999

[www.geoinfo.ait.ac.th](http://www.geoinfo.ait.ac.th)





## **Remote Sensing and GIS**

- Web Mapping
- Drones
- GNSS
- Software and Mobile app development



## **Disaster Management**

- Emergency Mapping
  - Flood
  - Landslide
  - Earthquake



## **Environment**

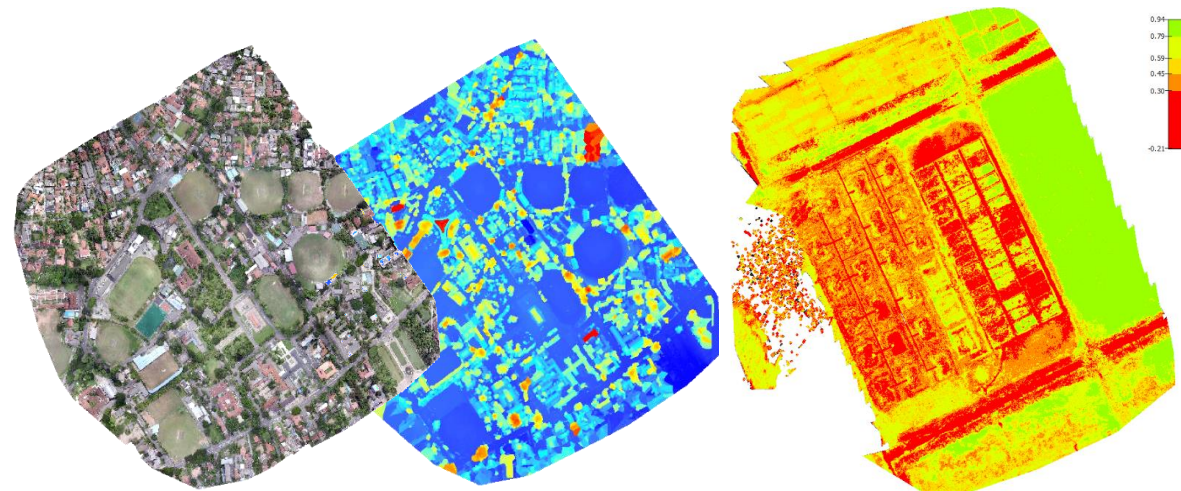
- Agriculture
- Drought
- Forestry
- Coastal Zone Management



## **Training**

Tailor made training programs on a number of disciplines







## 2. Introduction to Project and Our Contribution

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# Project Description

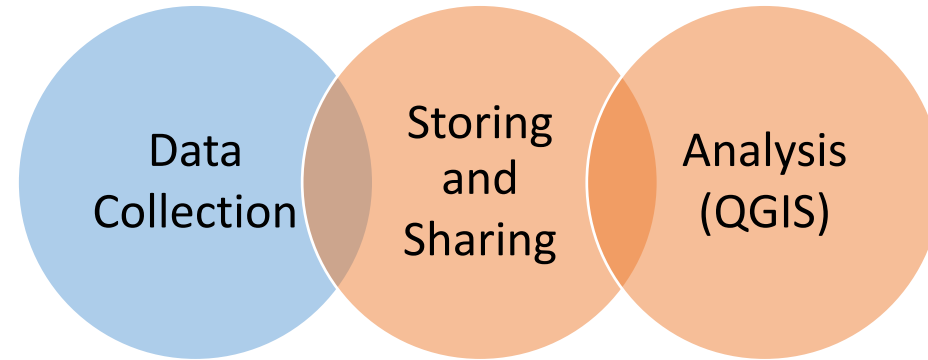


# Project Description – One Month Training Program

- The training program was at GIC, AIT from 6th February to 3rd March 2017.
- 12 participants from 8 Pacific Island countries participated in this program (Cook Islands, Fiji, Kiribati, Micronesia, Samoa, Solomon Islands, Tonga, Vanuatu)



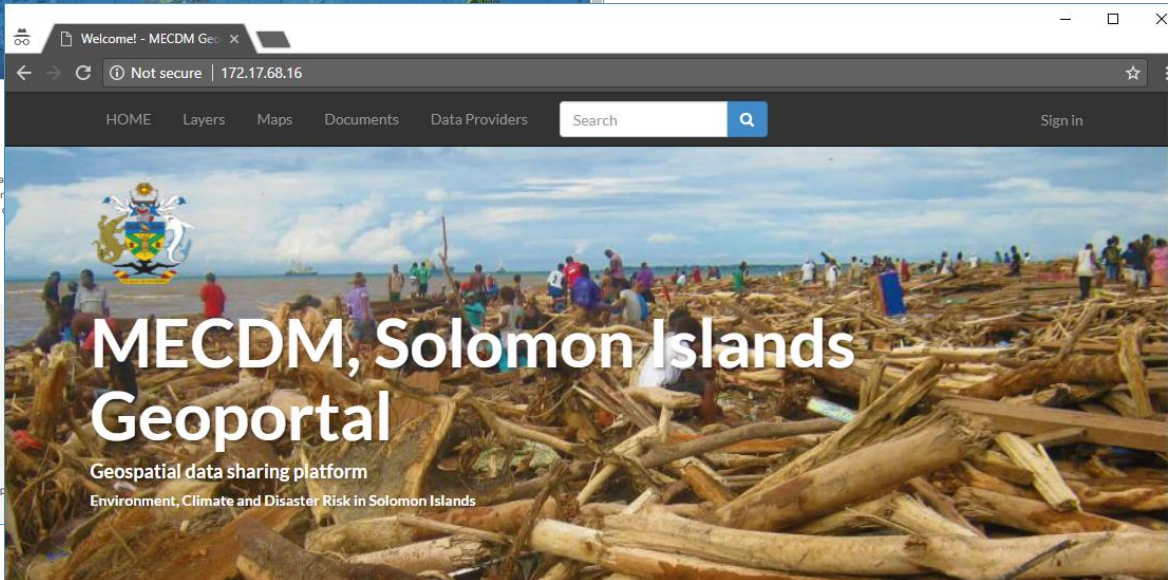
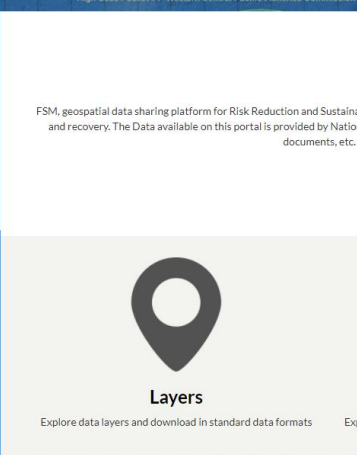
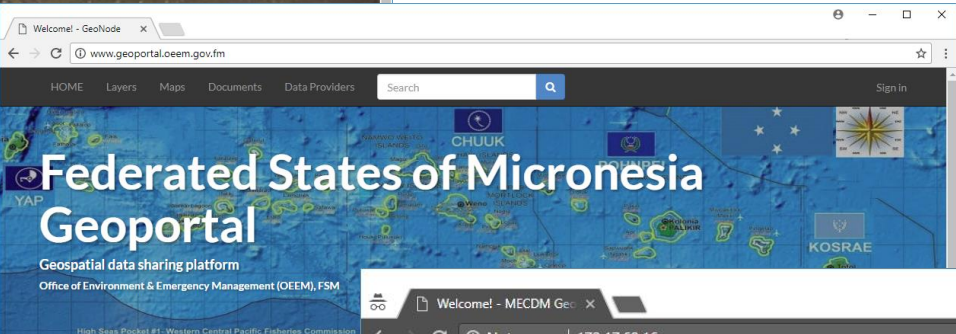
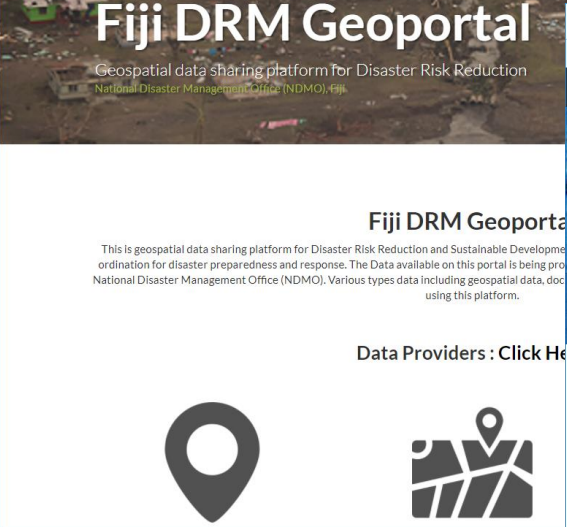
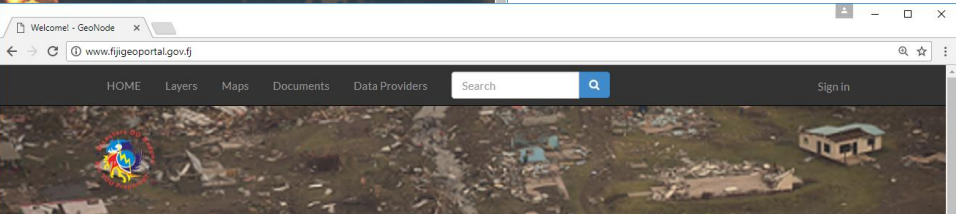
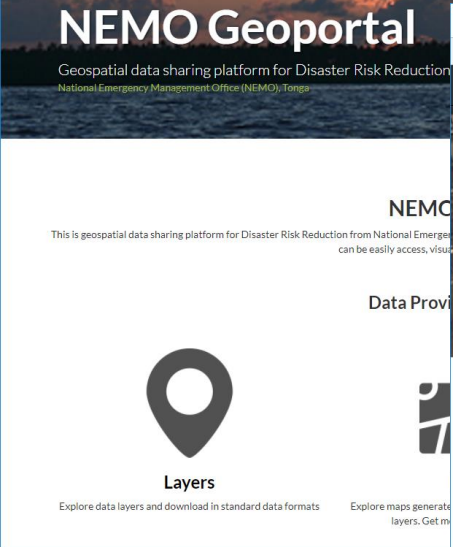
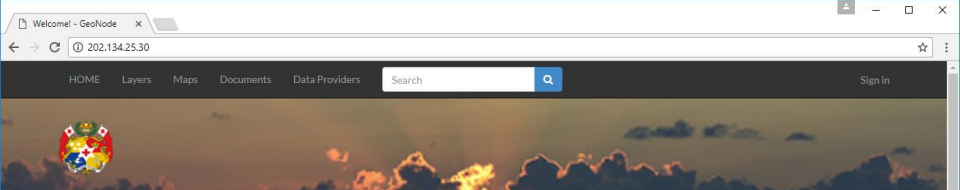
# Project Description – One Month Training Program



Week 1 (GIS)	Week 2 (RS)	Week 3 (Geo-DB)	Week 4 (GeoNode)
<ul style="list-style-type: none"><li>• Introduction to GIS</li><li>• Creating and Editing GIS Data</li><li>• Vector Analysis and Table Management</li><li>• Map Composition</li><li>• Coordinates/Projections</li></ul>	<ul style="list-style-type: none"><li>• Introduction to RS</li><li>• Image Processing</li><li>• Image Classification</li><li>• Flood Damage Assessment</li><li>• Building Damage Assessment</li><li>• Satellite Based Rainfall Analysis</li></ul>	<ul style="list-style-type: none"><li>• Postgres/ PostGIS</li><li>• GeoServer</li><li>• Access PostGIS data from QGIS</li><li>• Access GeoServer data from QGIS</li><li>• WMS/WFS</li></ul>	<ul style="list-style-type: none"><li>• Introduction to GeoNode</li><li>• Upload data, documents</li><li>• Create, Publish Maps</li><li>• Security &amp; permissions</li><li>• Customize GeoNodes</li><li>• Backup and Restore</li></ul>

# Project Description – Country Visits

- Visited 4 counties (June – December, 2017)
  - Tonga
  - Fiji
  - Federated States of Micronesia
  - Solomon Islands



MECDM, Solomon Islands Geoportal

Micronesia

<http://www.geoportal.oem.gov.fm/>

Fiji

<http://www.fijigeoportal.gov.fj/>

Tonga

<http://202.134.25.30>

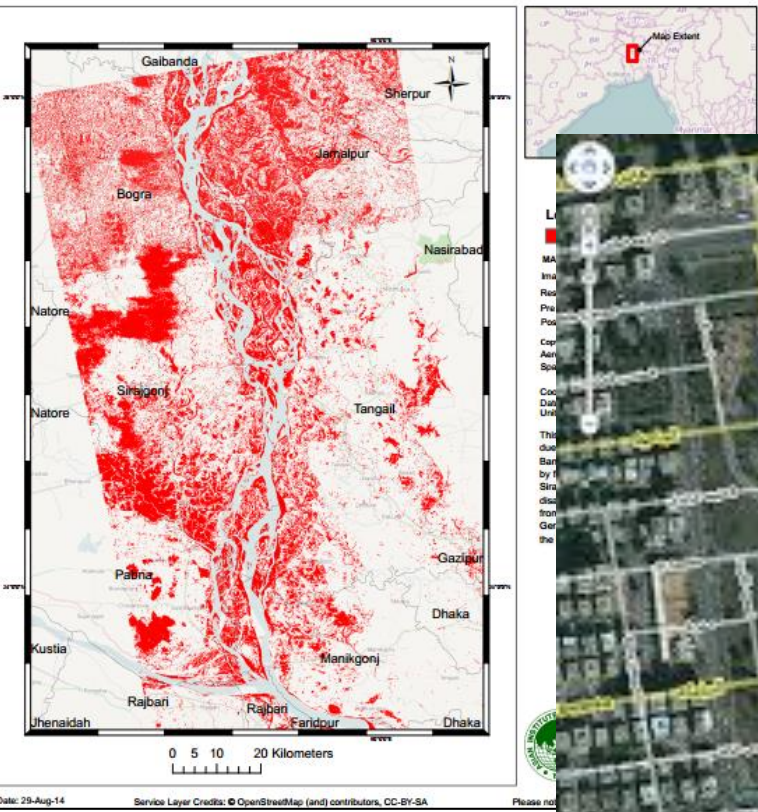
Solomon Islands – Working with in Government Network



# 3. Web Maps and Geonode

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FLOOD AFFECTED AREA IN BANGLADESH







Schweizerische Eidgenossenschaft  
Confédération suisse  
Confederazione Svizzera  
Confederaziun svizra

Federal Office of Topography swisstopo

Searchterm

Themes A-Z

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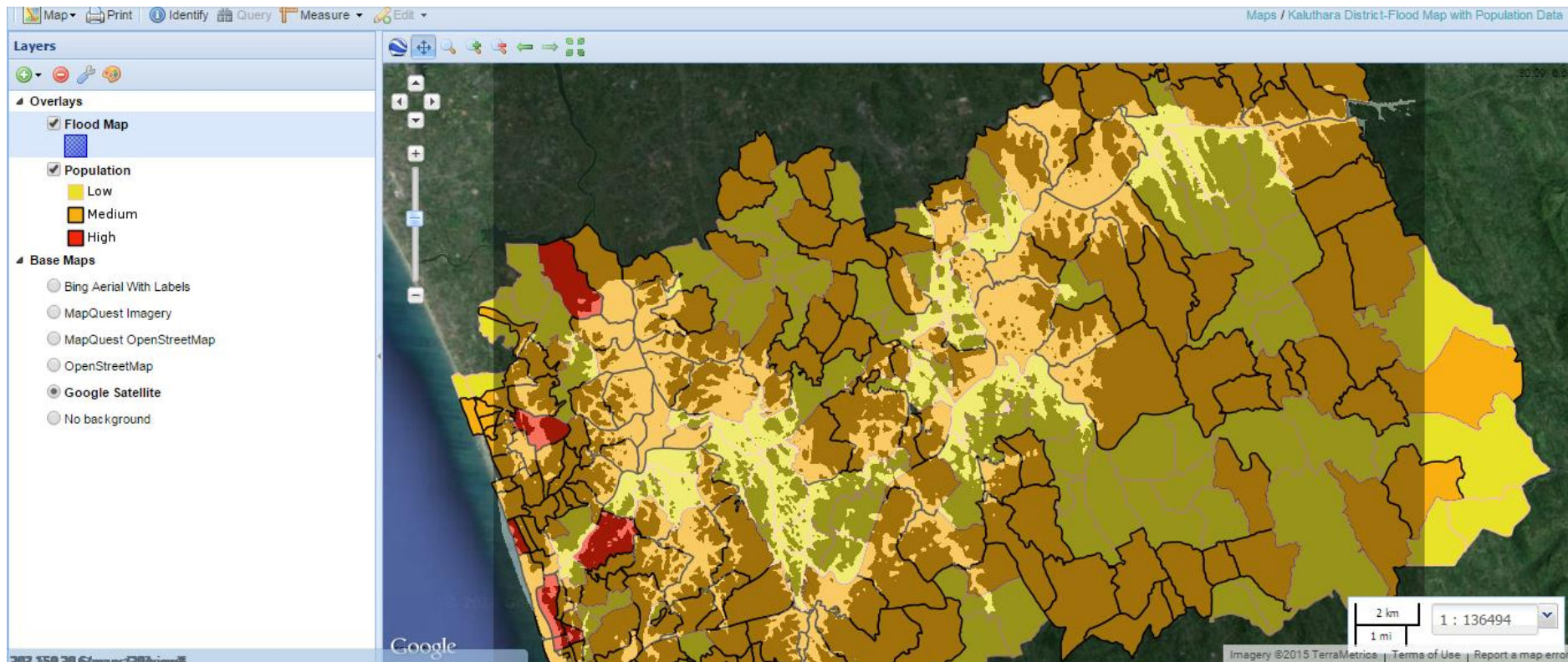
View on map.geo.admin.ch





# Natural Disaster – Spatial Data Sharing

- At the time of a disaster it's very important to have ready-made data available for better decision making





**Geo-portal is a centralized platform to share all the spatial data**

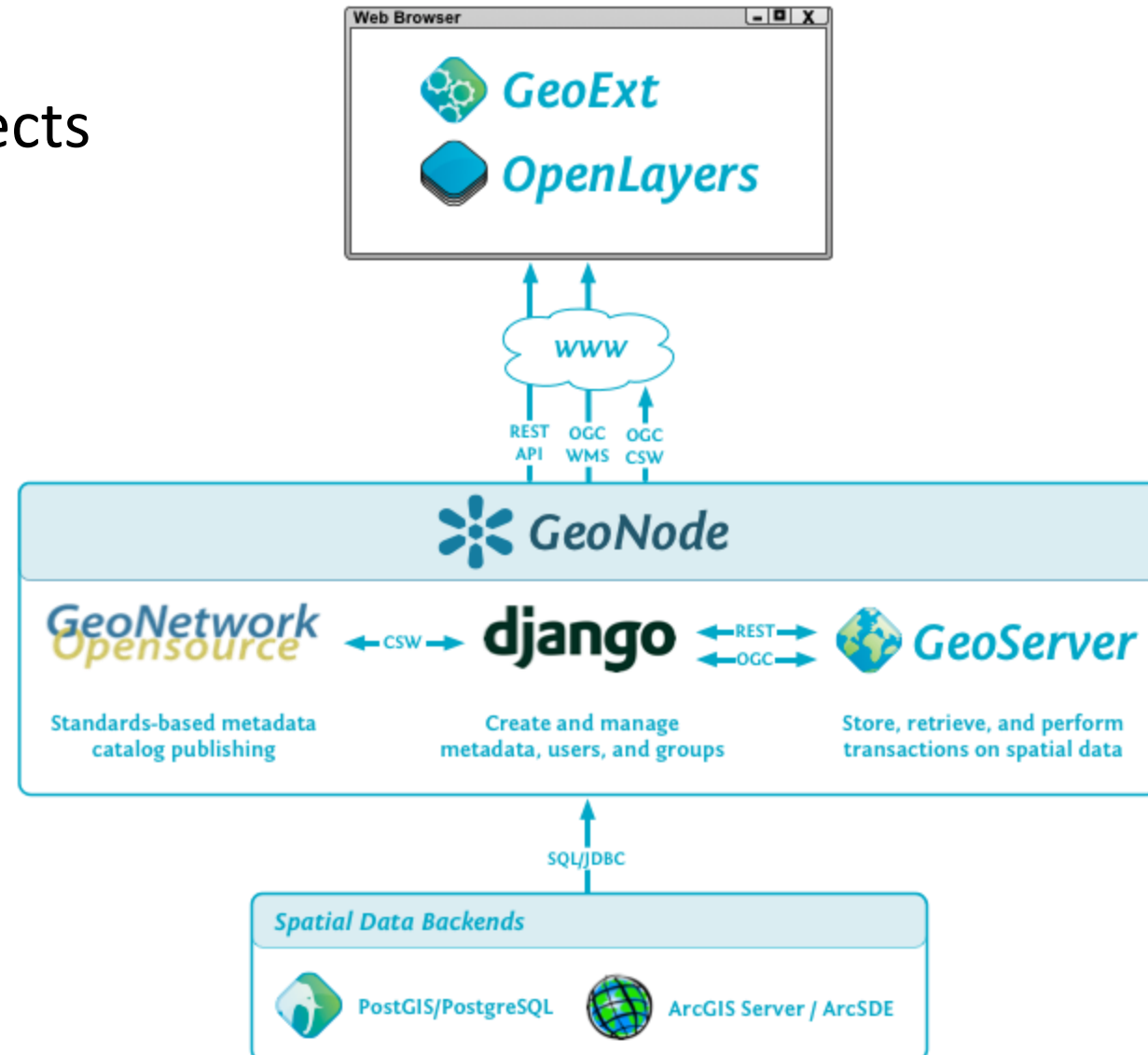
- Open Data with Public
- and
- Restricted data only among the Agencies

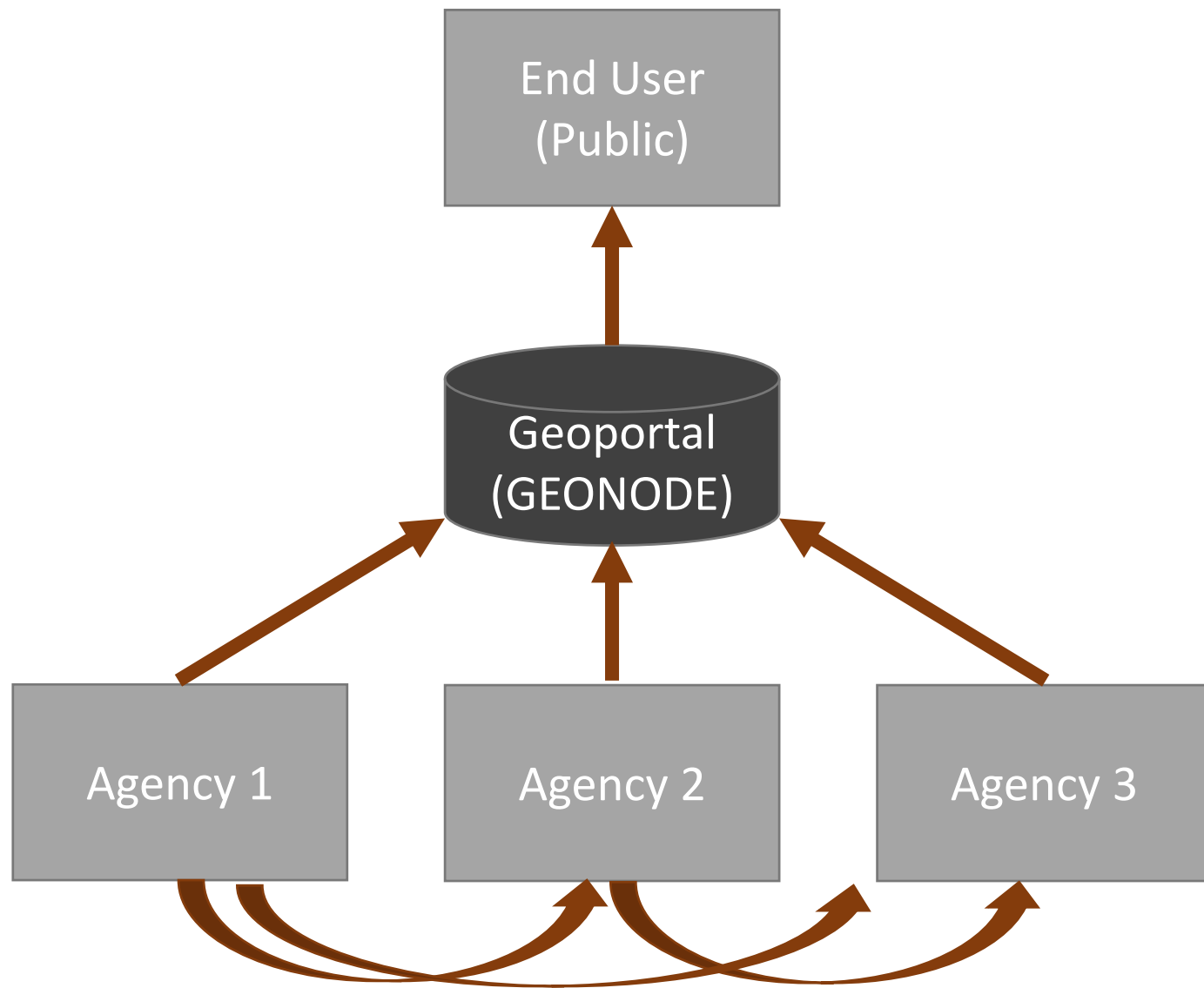
**GEONODE is one such open source solution for a Geoportal**

# GeoNode Framework

Building upon GIS open source projects

- GeoServer (Map Engine)
- PostgreSQL/PostGIS (Spatial Database)
- GeoNetwork (Meta Data)
- OpenLayers (Visualization)
- GeoExt (Tools)
- GeoWebCache (Caching)





- Mainly Intended to Facilitate one way data flow from Data Providers to Public (End User)
- Additionally, restricted data can be shared among only intended Agencies





## NEMO Geoportal

This is geospatial data sharing platform for Disaster Risk Reduction from National Emergency Management Office (NEMO), Tonga. Various types data including geospatial data, documents, etc. can be easily access, visualized, download using this platform.

Data Providers : [Click Here](#)



### Layers

Explore data layers and download in standard data formats



### Maps

Explore maps generated by aggregating and styling data layers. Get more insight in to the data

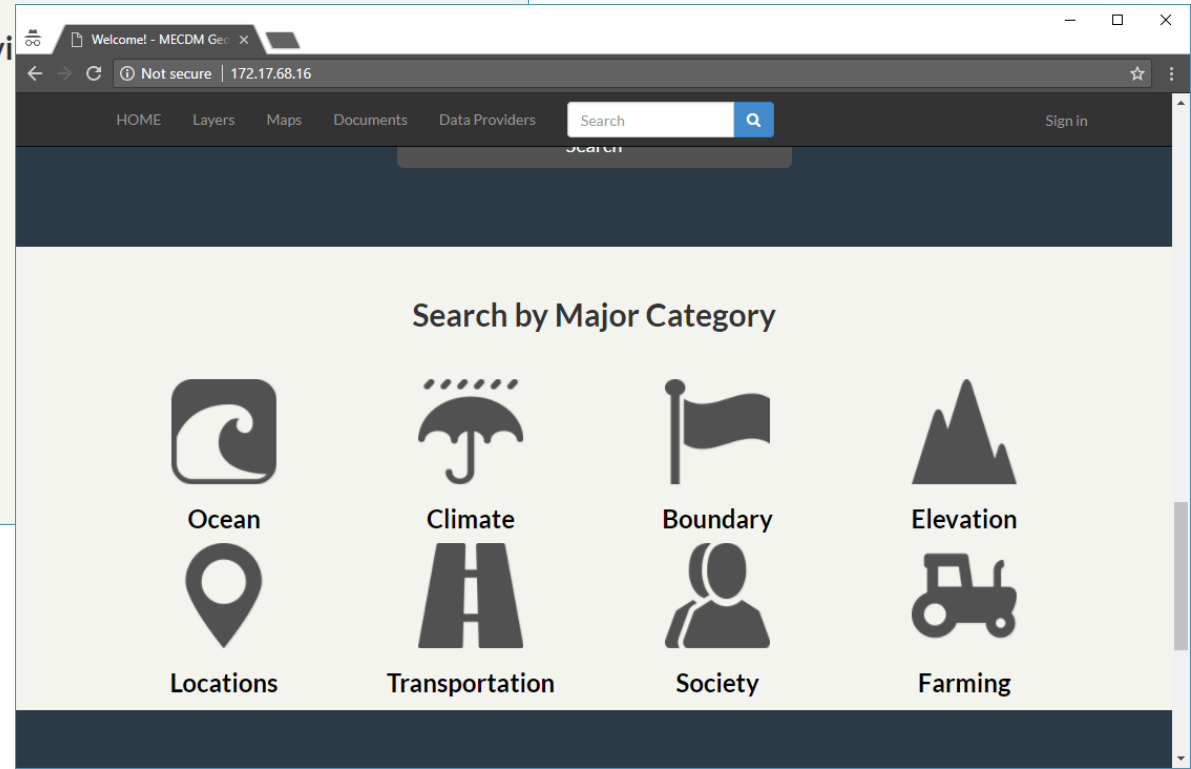
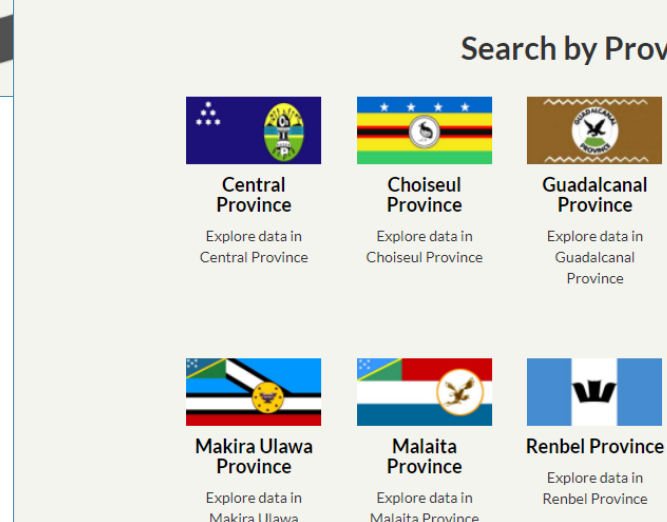
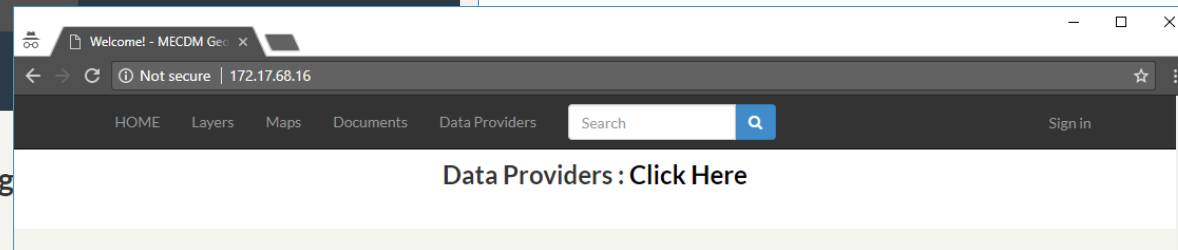
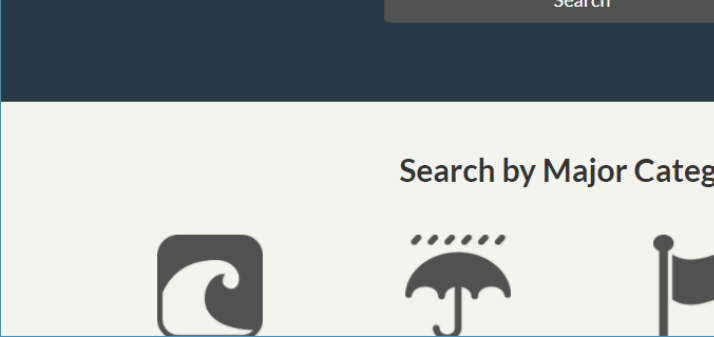
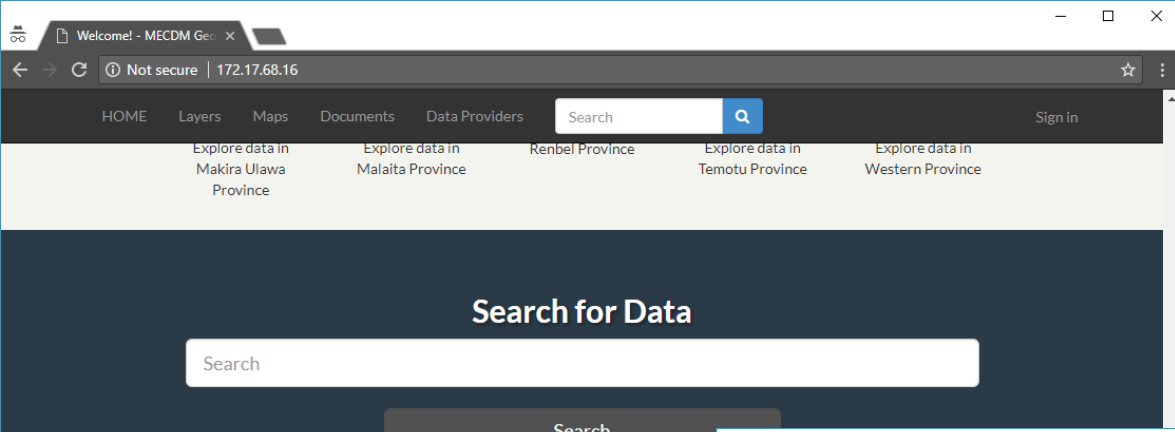


### Documents

Explore published documents and download in standard document formats

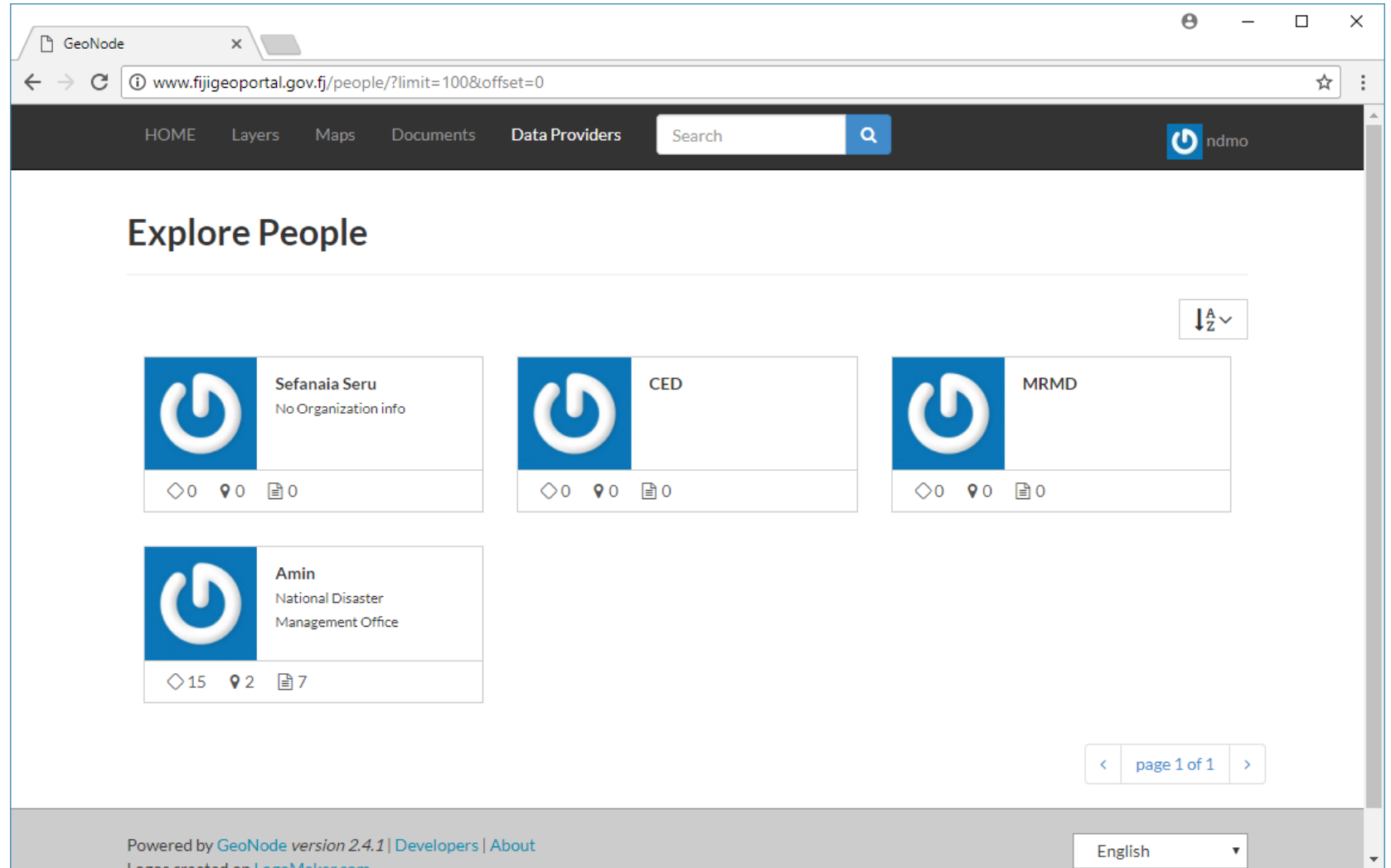
## 3 Types of Data

- Layers – GIS or Satallite Image Data
- Maps – Combination of Layers
- Documents



# Use Management

- Agencies that produce and use disaster related data can have account in Geonode
- All account (adding / removing) is managed by NDMO



# Data Privacy

- When uploading data use can provide different level of privileges for different uses
- Data is hosted in local server rather than outside server

The screenshot shows a web browser window with the address bar displaying 'www.fijiportal.gov.fj/layers/upload'. The page title is 'Upload Layer - GeoNode'. The navigation bar includes links for 'HOME', 'Layers', 'Maps', 'Documents', and 'Data Providers', along with a search bar and a 'ndmo' logo. The main content area is titled 'Upload Layers' and features a large dashed box with a cloud and arrow icon, labeled 'Drop files here'. Below this, there is a section for selecting files, including a 'Choose Files' button and a 'No file chosen' status. A section titled 'Files to be uploaded' includes a dropdown menu for 'Select the charset or leave default' with 'UTF-8/Unicode' selected. At the bottom of this section are 'Clear' and 'Upload files' buttons. On the right side, there is a 'Permissions' section with several expandable panels: 'Who can view it?' (with 'Anyone' selected), 'Who can download it?', 'Who can change metadata for it?', 'Who can edit data for this layer?', 'Who can edit styles for this layer?', and 'Who can manage it? (update, delete, change permissions.)'. Each panel has a 'Choose users...' or 'Choose groups...' input field.



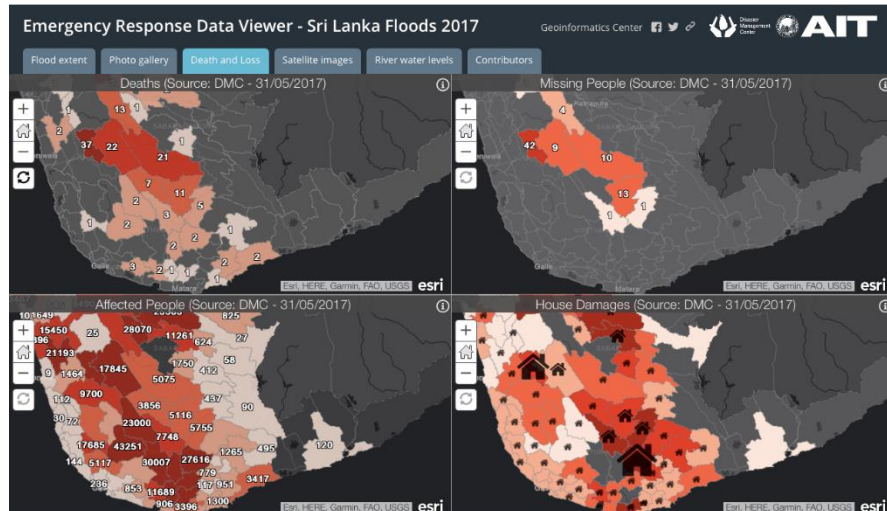
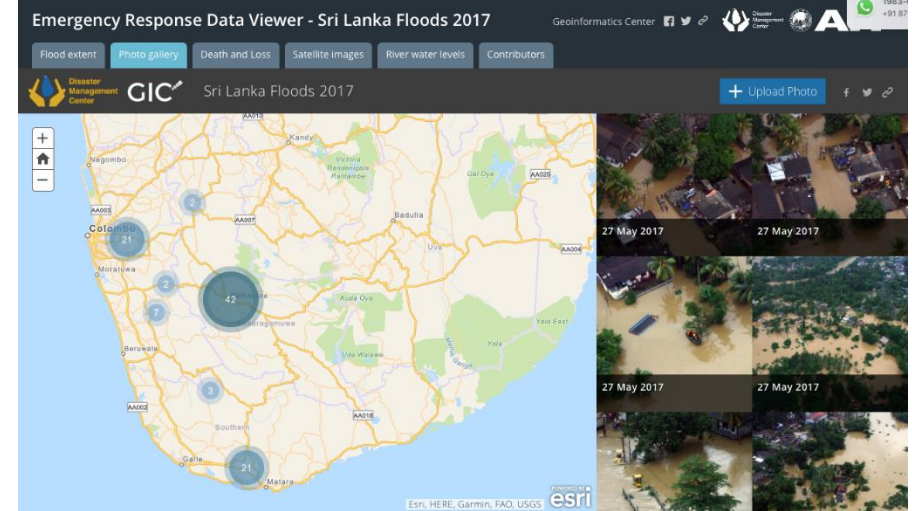
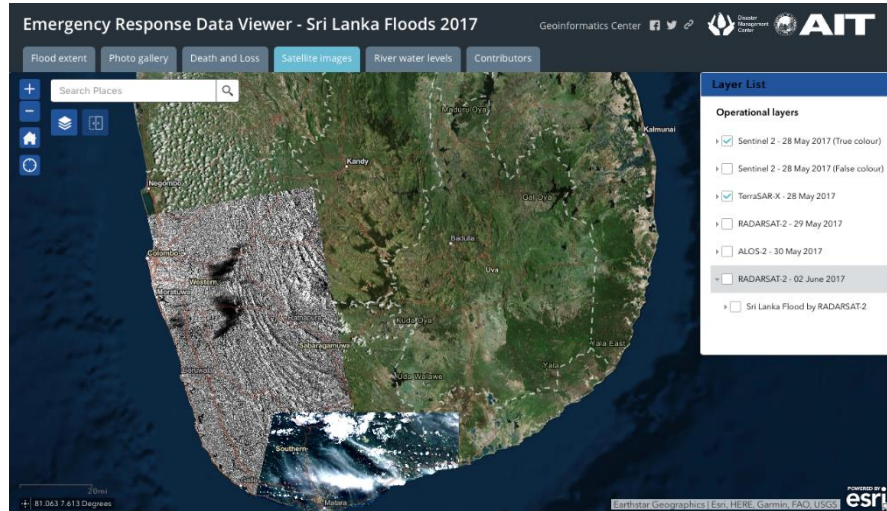
# 4. Concluding Remarks

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# Concluding Remarks

- Importance of country's capacity building rather than just deploying solutions
- Importance of having long term training

# Sentinel Asia/IDC Activation in Sri Lanka



1.introduction - YouTube

Secure | [https://www.youtube.com/watch?v=hGzpr\\_eum1s&list=PLd5aOQlhHiNP597n5FH9CoMeSQSAIO2I6](https://www.youtube.com/watch?v=hGzpr_eum1s&list=PLd5aOQlhHiNP597n5FH9CoMeSQSAIO2I6)

Search

1.introduction

3,456 views

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Ramesh De Silva  
Published on May 14, 2014

Introduction to GeoNode

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Hello sir, I watched all yours videos.. all are useful for me.. I am interesting on developing part. Can I get your Gmail account?

GeoNode Guide

Ramesh De Silva - 1 / 6

2. GeoNode Interface

Ramesh De Silva

3. GeoNode Setup and Configuration

Ramesh De Silva

4. GeoNode - Features and Functions

Ramesh De Silva

5. GeoNode - Security and Permission

Options

2. GeoNode Interface

Ramesh De Silva

2K views

Explore Documents - Geo

[www.fijigeoportal.gov.fj/documents/?limit=100&offset=0](http://www.fijigeoportal.gov.fj/documents/?limit=100&offset=0)

HOME Layers Maps Documents Data Providers Search Sign in

pdf

GEOSCIENTIFIC INFORMATION

**Training Manual - Geonode System Administration Guide**

This documents is a comprehensive guide for the System Administration of Geonode. Basically, it contains the IT side of managing Geonode. Sub-topics in this document are, 0. Install Ubuntu 1, Setting-up GeoNode 2. Customizing GeoNode 3. Backup-Restore

ndmo 6 Jul 2017 16 0 0

pdf

GEOSCIENTIFIC INFORMATION

**Training Manual - Basic Use of Geonode**

This manual contains information about basic use of the Geonode including, 1.Basic Interface 2.Working with Layer 3.Working with Maps 4.Working with Documents 5.Basic Styling of Data 6.Advance Styling of Data 7.Working with RGB Raster Data

ndmo 6 Jul 2017 19 0 0

< page 1 of 1 >

<http://www.fijigeoportal.gov.fj/documents>

[https://www.youtube.com/watch?v=hGzpr\\_eum1s](https://www.youtube.com/watch?v=hGzpr_eum1s)



Thank you !