Collaborative site for disaster response

Francisco Javier Jiménez Nava
Background

Over the past three decades, the frequency of natural disasters has increased worldwide, especially in certain regions, such as the Caribbean and the Pacific.

Additionally, risk exposure has increased with the growth of urbanization and concentration of people and economic activities in disaster-prone areas.
Background

When disaster strikes or when it can be foreseen, **geospatial information becomes a critical asset** for actions that mitigate its effects. This information must be accessible and with quality enough to offer the best response.
Background

To ensure the availability of this information, a working group was formed within the Specialized Technical Committee on Basic Geographic Information, one of 37 corporate bodies of the National System of Statistical and Geographic Information. As a result, INEGI has put into operation a collaborative site for disaster response, where the different Units of the Mexican State exchange information to perform their functions more efficiently.

The site is at
http://geoweb.inegi.org.mx/SitioIntercambioDesastres/abrirAreaIntercambio.do
Geografía y Medio Ambiente

Emissions, Waste and Hazardous Substances

Land Use, Vegetation and Forest Resources

Climate Change

Basic Geographical Information

Cadastral and Registration Information

Water

Rural and Urban Development

Energy Sector Information

Geographic and Environmental National Subsytem
Operation, structure and contents

The WEB site is a restricted access site, for the moment, for users in several government agencies; those related to the production of geospatial and statistical information which is relevant for disasters to those directly in charge of the emergency response.

Once an authorized user is given access to the main page, several sections are presented:
Collaborative Site Manager

Discovery
Viewing and Consultation
Discharge
Direct Access

Employment of Standards OGC:
- WMS
- WCS
- WFS

Permanent base layers and by phenomenon or event
Events

In this section, there is information related to disaster events in which the response is going on, or occurred recently.

Each event can be considered as a “subsite” inside of the site. Access is given to relevant data sets, either through links to file download or the URLs to Web Map Services.
Events

Examples are Population (Census) data at the block level for towns or cities in the affected area, Hydrographic Network, Road Network, and Satellite Imagery, previous to the event, and whenever possible in the hours or days after the event, so that the damaged areas and features can be located.

For each event, a message board is also created, so that several users can also exchange comments, questions, etc. There is also a section for data visualization.
Historic events.

Access to data sets related to events that happened in previous years or where the emergency phase ended, is preserved through this section. The structure of this section is the same as the one for recent events.
Available Information.

As a disaster may occur at any moment and in any part of the country, there is a section which gives permanent access to some basic or framework data sets. Also, the access is through links for downloading files or URLs to Web Services: Web Map Services, Web Feature Services, and Web Coverage Services. These give direct and interoperable access to data for population (census), economic units (DENUE), Road Network, satellite imagery and elevation data.
CONCLUSIONS AND PERSPECTIVES

It’s important to identify any gaps that must be addressed by the statistical and geospatial communities (national, regional and global). They could improve the quality, harmonization, coordination and collaboration for better support of emergencies or extreme events and disasters response.

Harnessing the institutional and Interinstitutional so national as international experience in the processes of access, interoperability, interchange and the use of geospatial or geostatistical data, can be the difference in an emergency, extreme event or disaster, under already functional standards like those experiences presented in this event.
National Interest Information

- Defined by National System of Statistical and Geographical Information Law (Art. 78)
Cobertura del Suelo Caribe
Land Cover Caribbean
Anguilla y San Martín

Anguilla and Saint Martin

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<tr>
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**Map Legend:**
- Cultivated land
- Forest
- Grassland
- Scrubland
- Wetland
- Water bodies
- Artificial surfaces
- Bareland

**Note:** The map shows the distribution of land use classes across Antigua and Barbuda, with key statistics summarized in the table above.
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Class | km²
---|---
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Forest | 705.4
Grassland | 11.9
Scrubland | 2.7
Wetland | 1.2
Water bodies | 0.5
Artificial surfaces | 7.5
Bareland | 0.0
TOTAL | 730.7
### Class km²

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### Class km²

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Martinique

Class | km²
---|---
Cultivated land | 57.3
Forest | 862.7
Grassland | 36.2
Scrubland | 4.1
Wetland | 20.1
Water bodies | 13.9
Artificial surfaces | 66.1
Bareland | 1.0
TOTAL | 1061.5
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47,233.0
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Saint Kitts and Nevis
### San Vicente y Granadinas

#### Saint Vincent and the Grenadines

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<td>Wetland</td>
<td>2.2</td>
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<tr>
<td>Water bodies</td>
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<td>Artificial surfaces</td>
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Saint Lucia
Class | km²
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Cultivated land | 125.9
Forest | 4,030.5
Grassland | 25.9
Scrubland | 9.8
Wetland | 85.3
Water bodies | 38.7
Artificial surfaces | 285.9
Bareland | 1.6
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Conociendo México

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