Importance of Earth Observations in national statistical systems

Integrated geography and statistical expertise

INEGI

The Role of Earth Observations in Developing Indicators for the Post-2015 Development Agenda: Starting a Dialogue

Side Event

February 27th, 2015
Content

- Cartographic Database
- Digital Map of México
- Geomatic Solutions for Censuses and Surveys
  - National Statistical Directory of Economic Units (DENUE)
  - National Housing Inventory
  - Environmental Information
  - Environmental Statistics System
- Invitation to upcoming events
Our National Geostatistical Framework, along with the Topographic Map of Mexico, create the Cartographic Database of México (BCU) on which INEGI supports the planning of various institutional projects.
32 STATE GEOSTATISTICAL AREAS
- 31 Federal Entities
- 1 Federal District

2,457 MUNICIPAL GEOSTATISTICAL AREAS
- 2,441 Municipalities
- 16 Delegations (D. F.)

299,662 GEOSTATISTICAL LOCATIONS
- 4,547 Urban
- 295,115 Rural

2,220,103 GEOSTATISTICAL BLOCKS
- 31.1 million of street numbers
- 2.3 million roads
Cartographic Database

The BCU is the database where all updated information from the Federal Government and National Institutions is uploaded, so it can be shared.
Digital Map of Mexico
(MDM) Version 6
Digital Map of Mexico

Allows for the visualization and analysis of geographic and georeferenced statistical information. It offers 208 vector data layers, with more than 71 million geographic objects and 4 raster layers covering the whole country.

Benefits:

- Adaptable user Platform
- System implemented with international standards
- No additional commercial software licenses required
- Based on robust modules of open source software
Digital Map of Mexico

208 vector data layers, with more than 71 million geographic objects
Geomatic Solutions for Censuses and Surveys
Census Operational Process

Module 1: Operational Planning
- Operational Planning
- Planning Application

Module 2: Mapping Module
- Mapping Module
- Georeferencing System
- Mapping Updates

Module 3: Monitoring, progress and geographical coverage
- National Integration
- Reports
- Application of monitoring, progress and geographical coverage

Module 4: Closure
- Web Query [inquiry] System and Desktop
- (operating) Results
National Statistical Directory of Economic Units (DENUE)

Economic Units: 4.9 million
National Housing Inventory
Environmental Information
Environmental Statistics System
INEGI’s responsibility for producing and integrating Statistical and Geographical Information in Mexico contributes to the creation, analysis & evaluation of Indicators for the Post-2015 Development Agenda.
INVITATION

On November 9th-13th 2015, Mexico will host 4 important events related to Geospatial Information:

- Latin America Geospatial Forum 2015
- 2nd Session of UN-GGIM:Américas
- GEO XII Plenary Session
- 2015 GEO Ministerial Summit - Mexico City

See you in México!
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See you in México!
I. Operational Planning

The Operational Planning module is based on the Digital Map of Mexico. This web application optimizes the operational planning of the event by assigning control sections of graphic form, and managing operating figures and graphical assignment of weekly work with a systematic visual monitoring of control sections, with a constant data backup every 15 minutes.

Workload Distribution for each Censor
II. Mapping Module

The **Mapping Module**, also based on the Digital Map of Mexico, is a local/movil Cartographical application, made to capture the georeferenced phenomenon, as well as map updates detected in the census operation in a GIS type tool of a particular purpose.

At the end of the process, all the cartographic updates made on the field are verified *In-situ*, so they can be updated definitely at the [Cartographic Database](#).
II. Mapping Module

Aplications

• To create and modify the mapping efficiently, easily and quickly to collect information in an accurate and complete way (merge or split blocks, roads, rural localities-creation, service-creation, or modifying services).
• Allows the capture of land data, blocks, services, and roads to keep updated those databases that require it.
• To integrate correctly the information generated.
• To assist in field operational stages of the census, to facilitate data collection.
III. Monitoring, progress and geographical coverage

The tracking system, is a web application that allows the integration of information and facilitates the monitoring of progress and geographical coverage by using the tools that allow a better analysis of the integrated information.

It Displays in a graphical form the advance and coverage of the census by blocks, AGEB and Localities.

The packages are integrated consistently, so that once it reaches the central server, the system is updated with a delay of minutes.
IV. Closure

Two Sides

Cartographic Database updated

Geodatabase

Flat files

GIS

Distribution Mapping

Desktop Application

Web: Census’s Atlas
IV. Closure
Spatial Analysis example:

You can create influence areas

You can download it in KML

You can make crossings with other layers of information
IV. Closure
And you can quantify the information in the analysis area.