

Working Group on Trends in national institutional arrangements in geospatial information management

Funding systems used in Mexico to support institutional arrangements: INEGI case

Sistemas de financiamiento usados en México, para soportar arreglos institucionales: Caso INEGI

**United Nations Committee of Experts on Global Geospatial Information Management
5th session
New York, August 4th, 2015**

Geog. Carlos A. Guerrero Elemen
Instituto Nacional de Estadística y Geografía
México
carlos.elemen@inegi.org.mx



UN-GGIM

United Nations Committee of Experts on
Global Geospatial Information Management

ggim.un.org

Introduction

The definition of a profitable financing model is an essential part of any global economic and geographical activity.

In Mexico, the financing model of the work of the State, centralized or autonomous offices, is the annual public funding allocated by the instrument as a matter of law, called the Expenditure Budget of the Federation (PEF for its acronym in Spanish).



Financing in Mexico for GI and RGI management

Autonomous bodies

Secretaries of State

Academic Sector



2015 INEGI's Budget: 0.047% of the GDP



UN-GGIM

United Nations Committee of Experts on
Global Geospatial Information Management

ggim.un.org

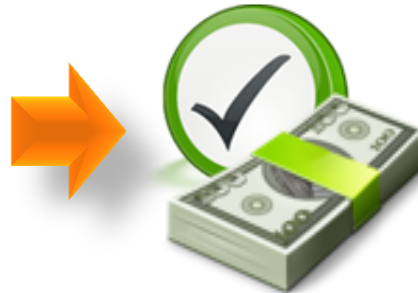
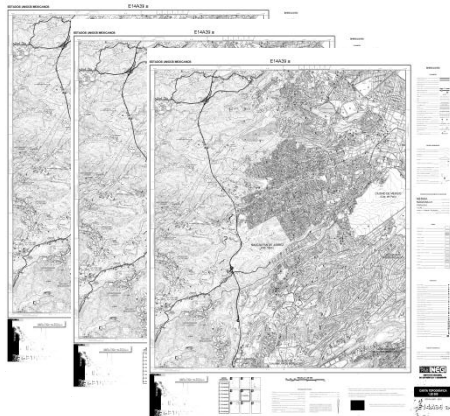
Gratuity

The information generated by the National Institute of Statistics and Geography, is free for all users.



Gratuity

- ❑ In complement to the above, Article 18 of the same Regulation states that it can only be charged for:
 - I. Reproduction services;
 - II. Processing services (can be requested to be free);
 - III. Generation services, and
 - IV. Anything else determined by the governing board, on a proposal from the General Directorate of Outreach and Public Information Service.



Collaboration

Interagency Collaboration Agreements (National)

Dependency	Objective
International Boundary and Water Commission between Mexico and the United States (CILA)	Make cartographic editing of aerial photographic mosaic of the international border between Mexico and the United States.
National Works and Public Services Bank, S.N.C. (BANOBRAS)	Make studies and projects required in Cadastral Modernization Program.
Municipality of Cortazar, Guanajuato	Create the cadastral management system and technical training.
Ministry of Foreign Affairs (SRE)	Promote the development of Spatial Data Infrastructure (SDI) in member countries of the Association of Caribbean States.
National Water Commission (CONAGUA)	Updating of the National Wetland Inventory of Mexico.
National Institute of Ecology and Climate Change (INECC)	Counseling on electronic platform called "COA-WEB".
Ministry of Economic Development of the Federal District (SEDECO)	Exchange of geographic and statistical information, as well as the development of a geomatics solution.



Collaboration

International Cooperation Agreement

These agreements allow the exchange of remote sensing inputs, experiences and geographic and environmental information. Some examples are:

- National Administration of Surveying, Mapping and Geoinformation of the People's Republic of China (NASG)
- National Geospatial-Intelligence Agency (NGA)
- Inter-American Development Bank (IDB)
- National Geographic Institute (IGN) of Spain
- World Bank (HECRA)

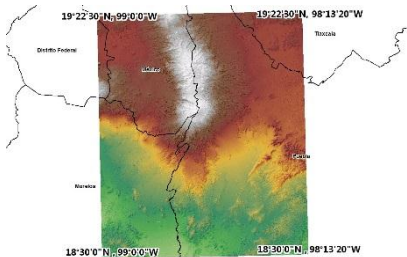


Achievements

☐ Geographic Products.

From 2010 to date, 2,054 topographic maps have been published, and are also available:

- Hydrographic network scale 1: 50,000
- National Road Network
- Vector dataset of highways and urban roads
- Thematic mapping at different scales (soil science, physiography, hydrology, climatology, potential land use, potential wetlands, land use and vegetation)
- National Geostatistical Framework
- Geostatistical urban mapping
- Condensed state
- Compendium of Municipal Geographic Information
- Altimetry and hydrography cover from the LIDAR Digital Elevation Models land type
- Continued Mexican Elevations with resolution of 15 m.
- LiDAR Digital Elevation Models



Achievements

❑ WMS Services and others.



- Orthophotos scale 1:20 000 and 1:10 000
- Hypsographic with resolution of 30m per pixel
- Topographic scale of 1: 1 000 000
- State and municipal limits Nationwide
- Geographical names (National Register)
- State Road Network scale 1:50 000
- Passive Geodetic Network Measurement points
- Topographic scale of 1: 50 000
- Topographic scale of 1: 250 000. Relief representation
- Natural Resource Information
- Satellite image coverage

Likewise, Web Services are being implemented as WFS layers to modify the Digital Map of Mexico and WCS for publishing and search collections of descriptive information (metadata) of geospatial data and services.



Conclusions

- ❑ Because in Mexico the gratitude of information for users, a funding model with return on investment is established, however it is not the ultimate end.

- ❑ The considered funding models could contribute to the support and improvements of National Institutional Arrangements are as follows:
 - Projects with mixed funding (public and private)
 - Special international funding for research and development
 - Indirect funding (exchange of remote sensing inputs, experiences and geographic and environmental information)

A key point is in cooperation and innovation..



Thank you for your attention

Geóg. Carlos A. Guerrero Elemen
TG2 Coordinator
carlos.elemen@inegi.org.mx

Contributors

Lic. Luis Gerardo Esparza Ríos
Deputy General Director for integration of Geospatial Information

Lic. Eva Luévano Orta
Director of Technological Development

Lic. Héctor Eduardo Aguayo Muñoz
Deputy Director of Technological Innovation



UN-GGIM

United Nations Committee of Experts on
Global Geospatial Information Management

ggim.un.org