



FINANCIANDO EL DESARROLLO • AMÉRICA LATINA

GTE Meeting on Cartographic Agendas

Collaboration between COSIPLAN and the CCT to Develop a Geographic Platform for South America



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IIRSA Information Needs

PREMISE: Integrated regional information, developed in accordance with shared standards, at different resolutions, and of consistent quality facilitates the decision-making process.

Spatial information in South America is fraught with the following flaws:

- There exist information gaps
- Information is not always capable of being integrated across borders
- Few regional standards have been established
- Information is hard to find and access
- Duplication of data generation efforts is common
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Creating an Integrated Base Map of Central America

- n A project financed by the Pan American Institute of Geography and History
- n Objective – Develop a 1:250,000-scale integrated regional map of Central America with the joint participation of representatives from the national geographical institutes of seven countries (Central America, Mexico)
- n First Workshop – Venue: Heredia, Costa Rica. August 2011
- n Second Workshop – Venue: El Salvador. November 2011
- n Third and Last Workshop – to be defined.

Central American Workshop on Data Integration and Technical Training

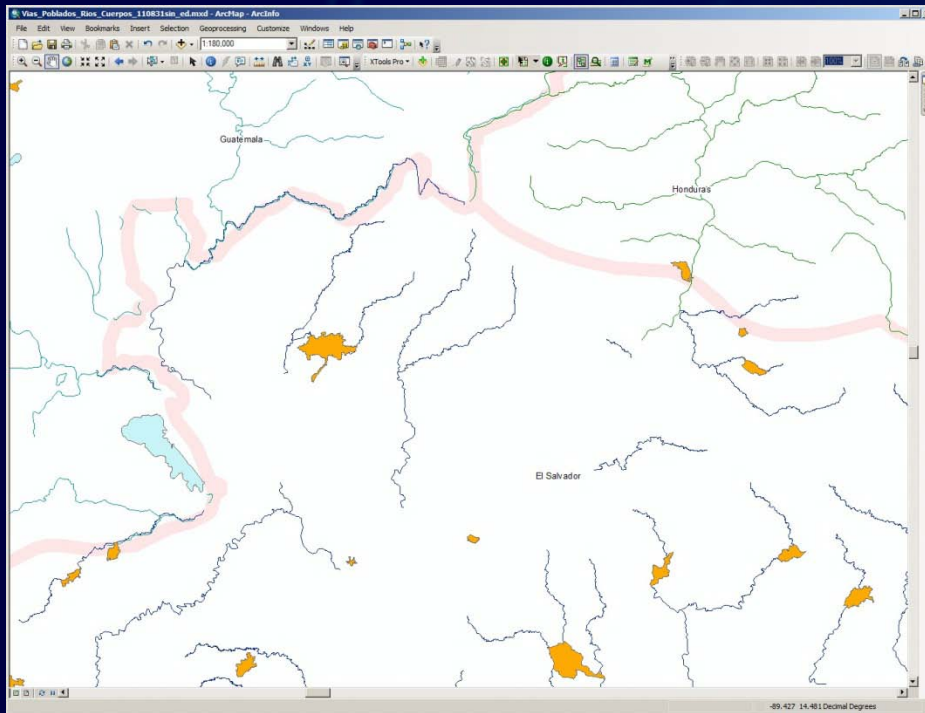
n Advances

- | Geographers from each Central American country and Mexico brought to the workshop 1:250,000-scale official data and, working collaboratively, helped their neighboring countries to integrate seven themes within a set of regional data.

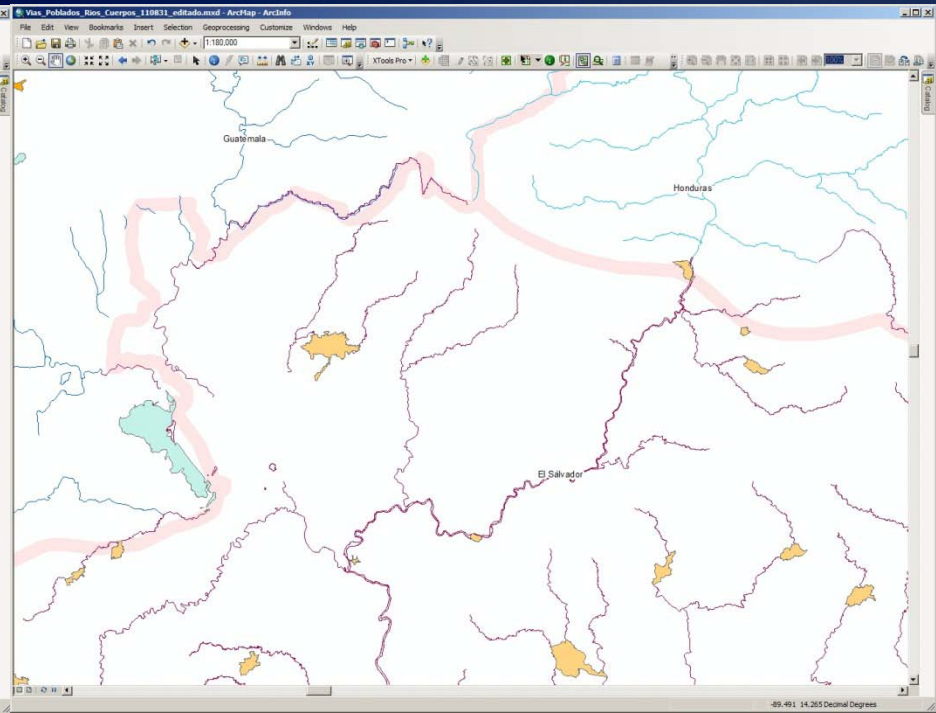
n Deliverables

- | Develop integrated information to be subsequently published in a Regional Map Service
- | Harmonize features, attributes and generalizations

Hydrology of Guatemala, El Salvador, Honduras

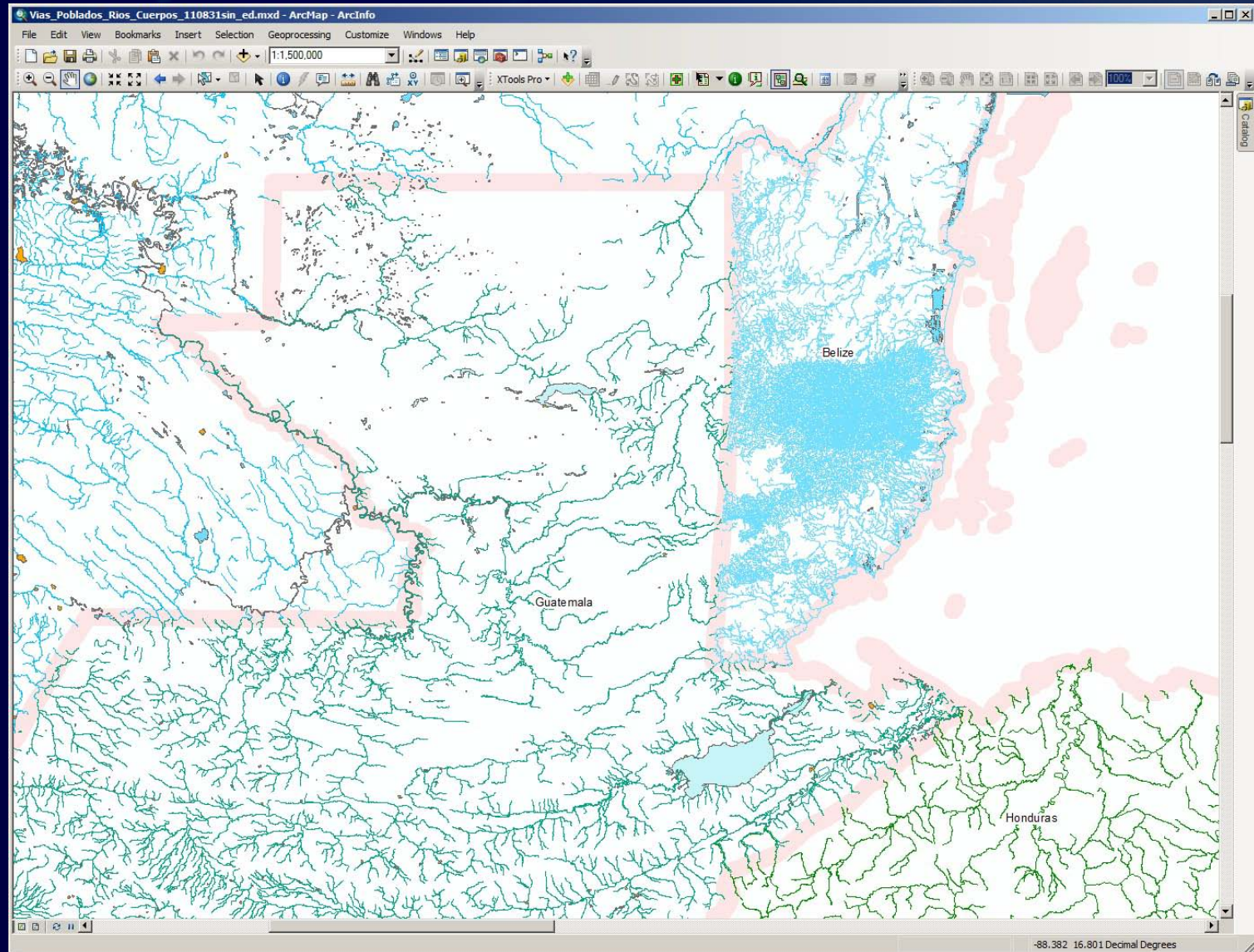


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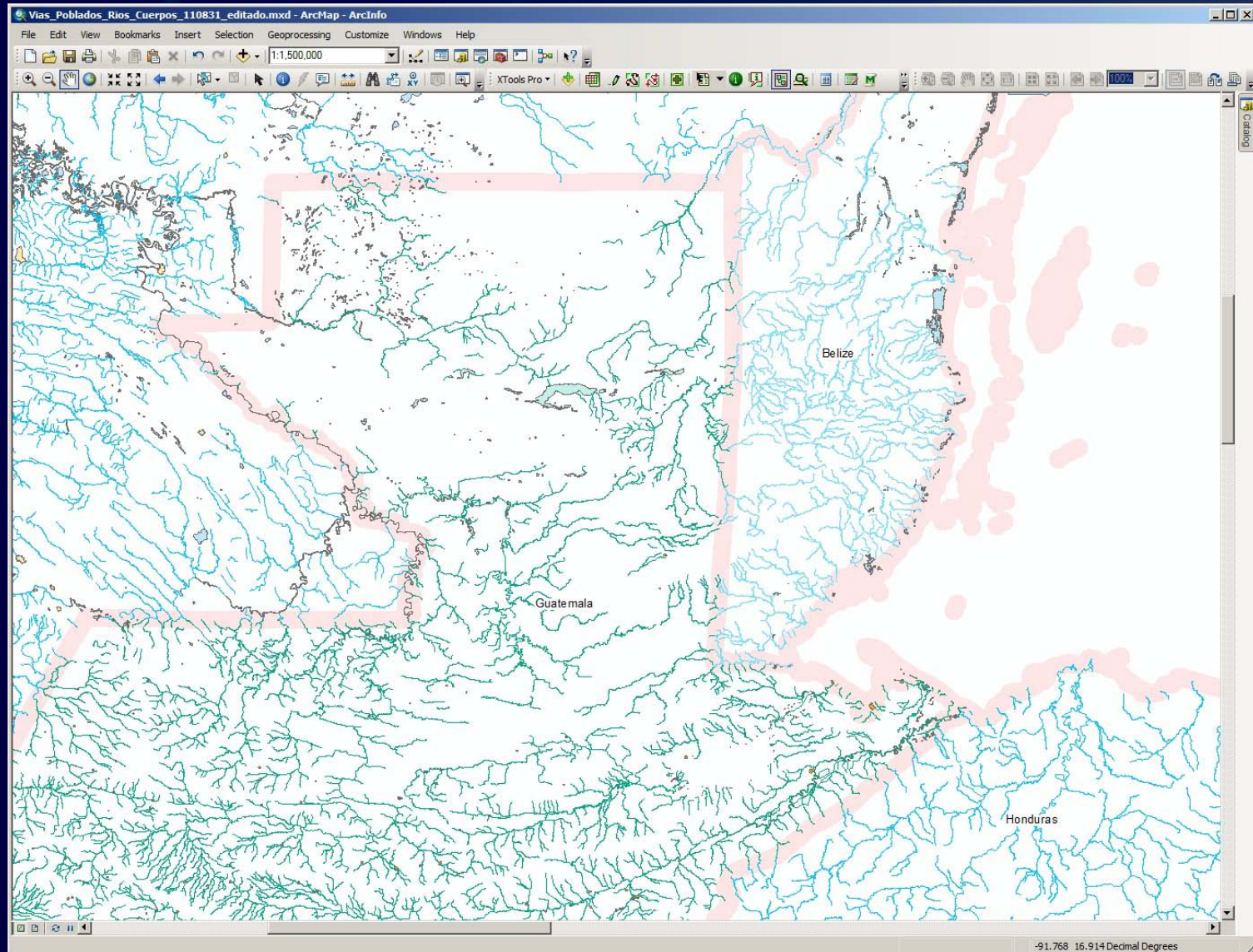


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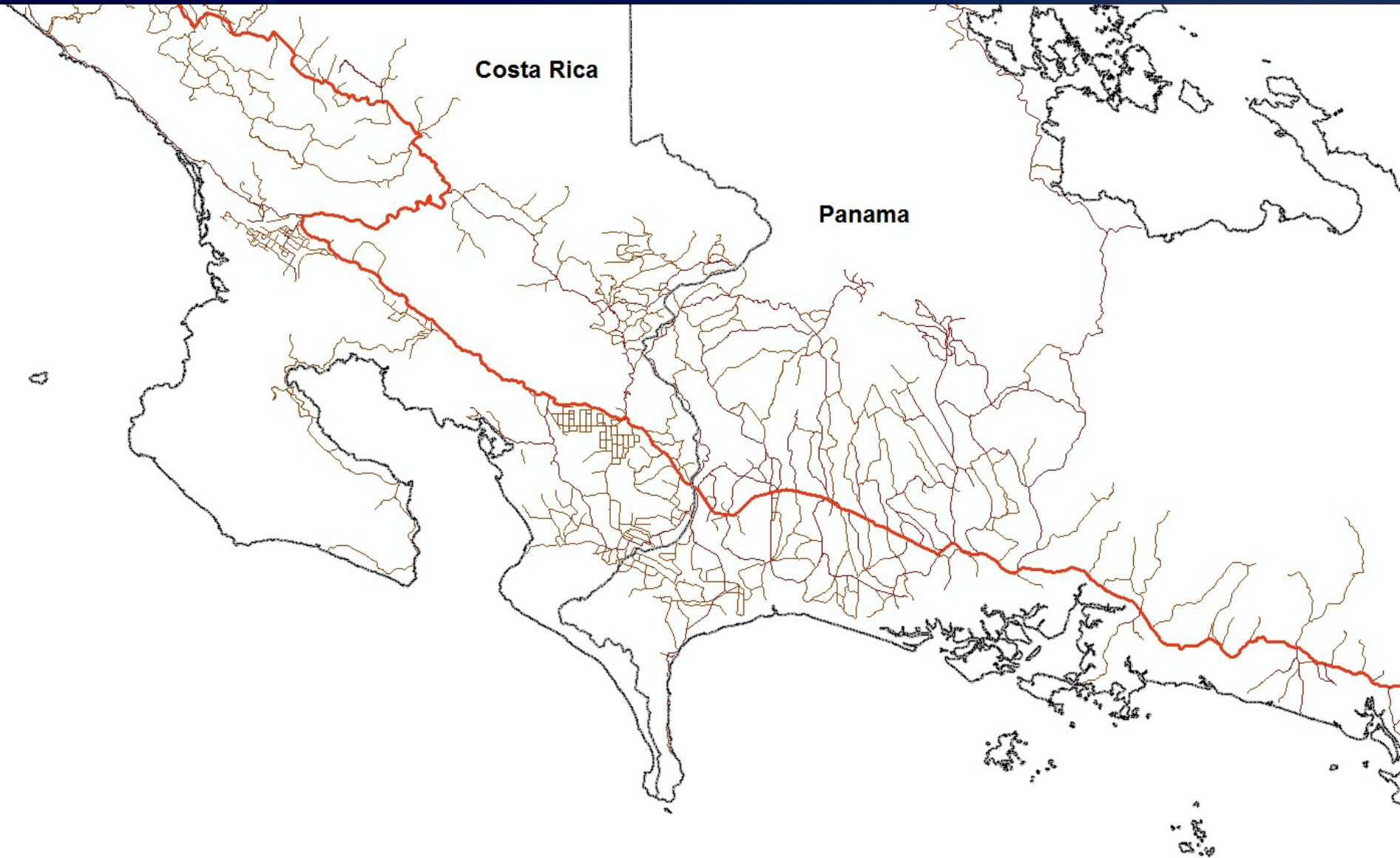
The Integrated Hydrography of Mexico, Belize and Guatemala, not edited



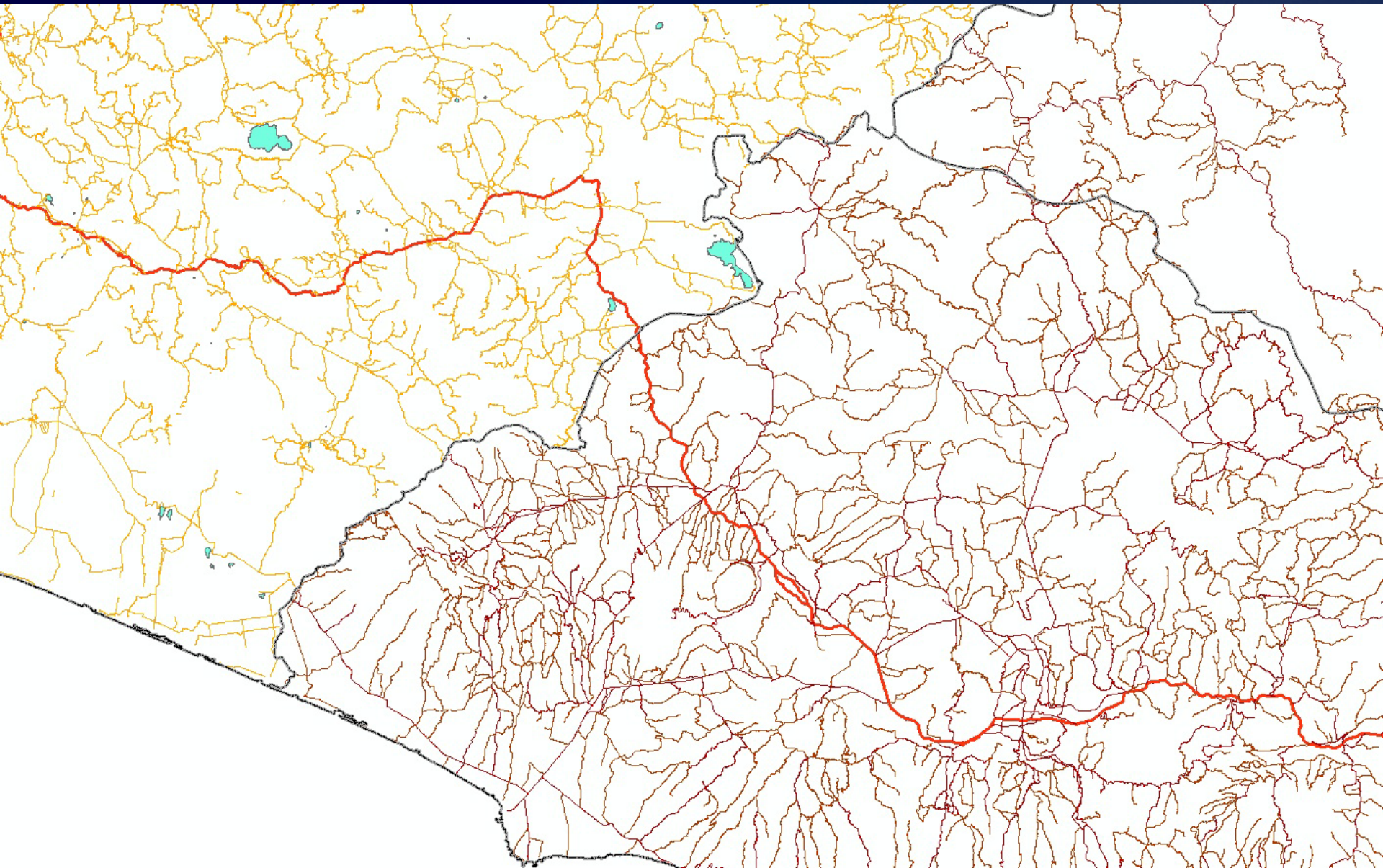
Integrated Rivers of Mexico, Belize and Guatemala, edited



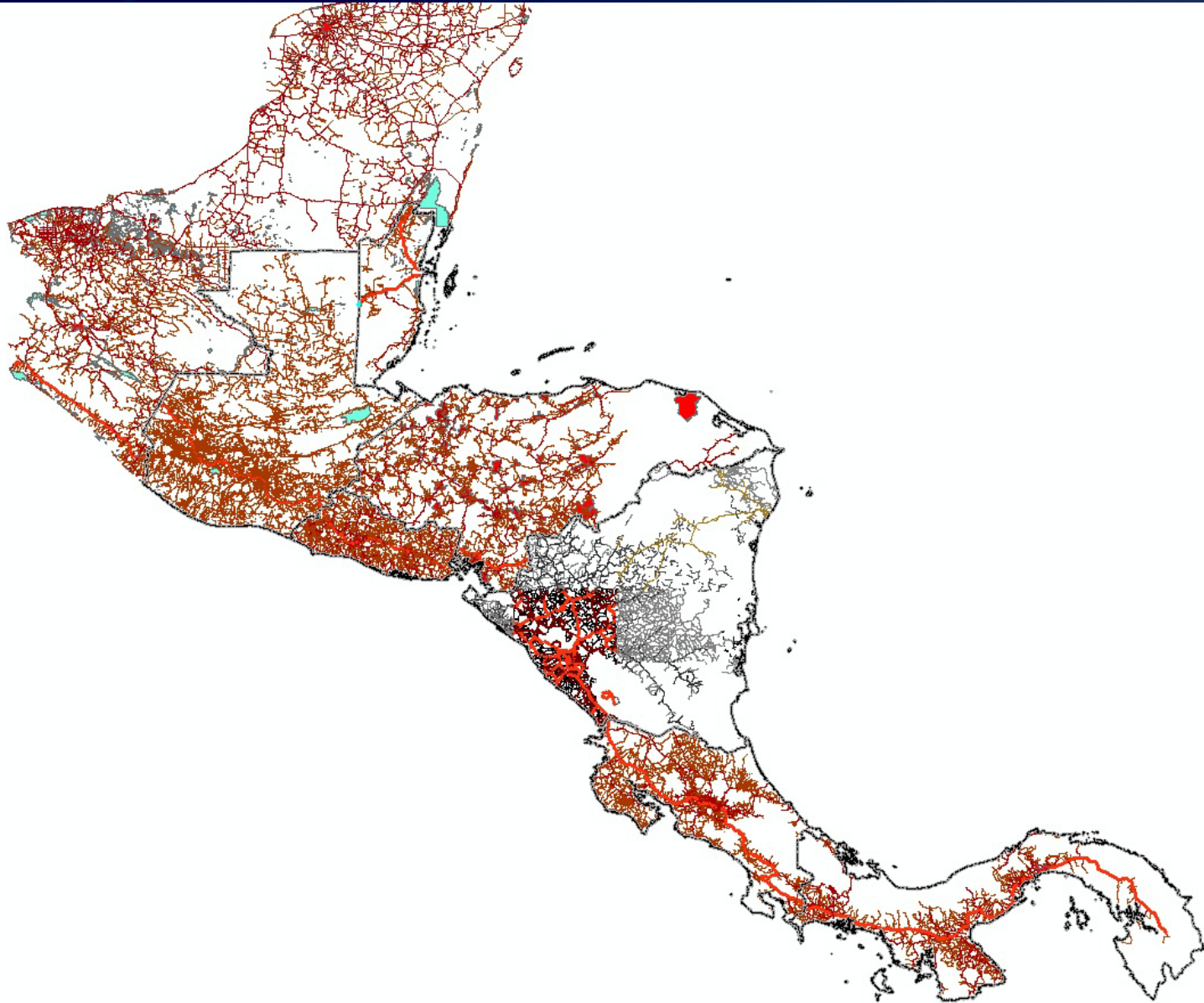
Roads of Costa Rica and Panama



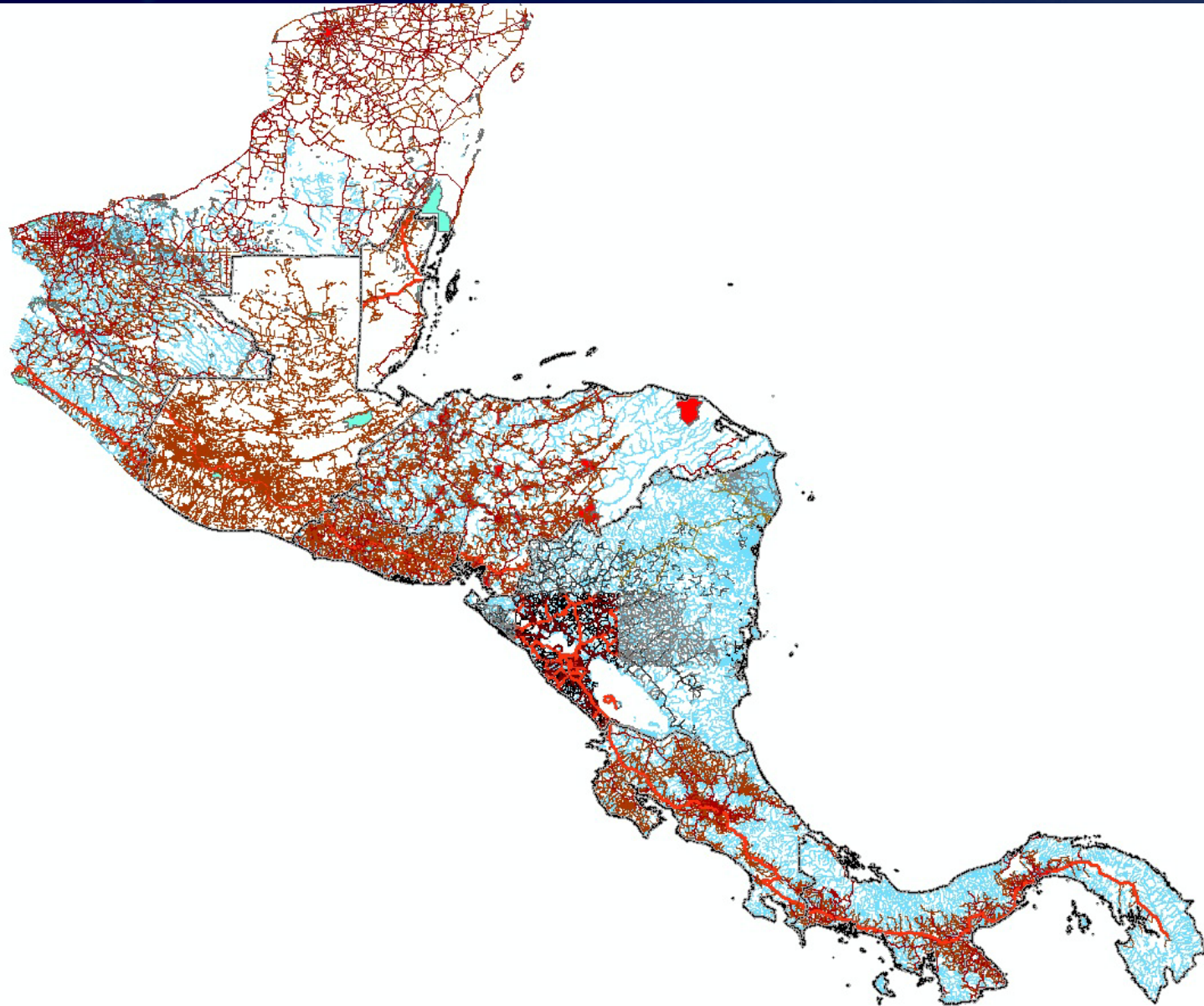
Roads of Guatemala and El Salvador



Central American Road Map



Roads, Hydrography and Urban Sprawl



Proposed Lines of Actions

- n Support in the production of South American regional base maps
- n Support in the production and dissemination of South American infrastructure maps
- n Establishment of a regional information platform for COSIPLAN
- n Technical assistance for the development of geospatial services by national institutions participating in COSIPLAN
- n Training in the use of GIS technologies and geospatial tools in general
- n Development of new applications
- n Evaluation of the use of cloud hosting for geospatial services

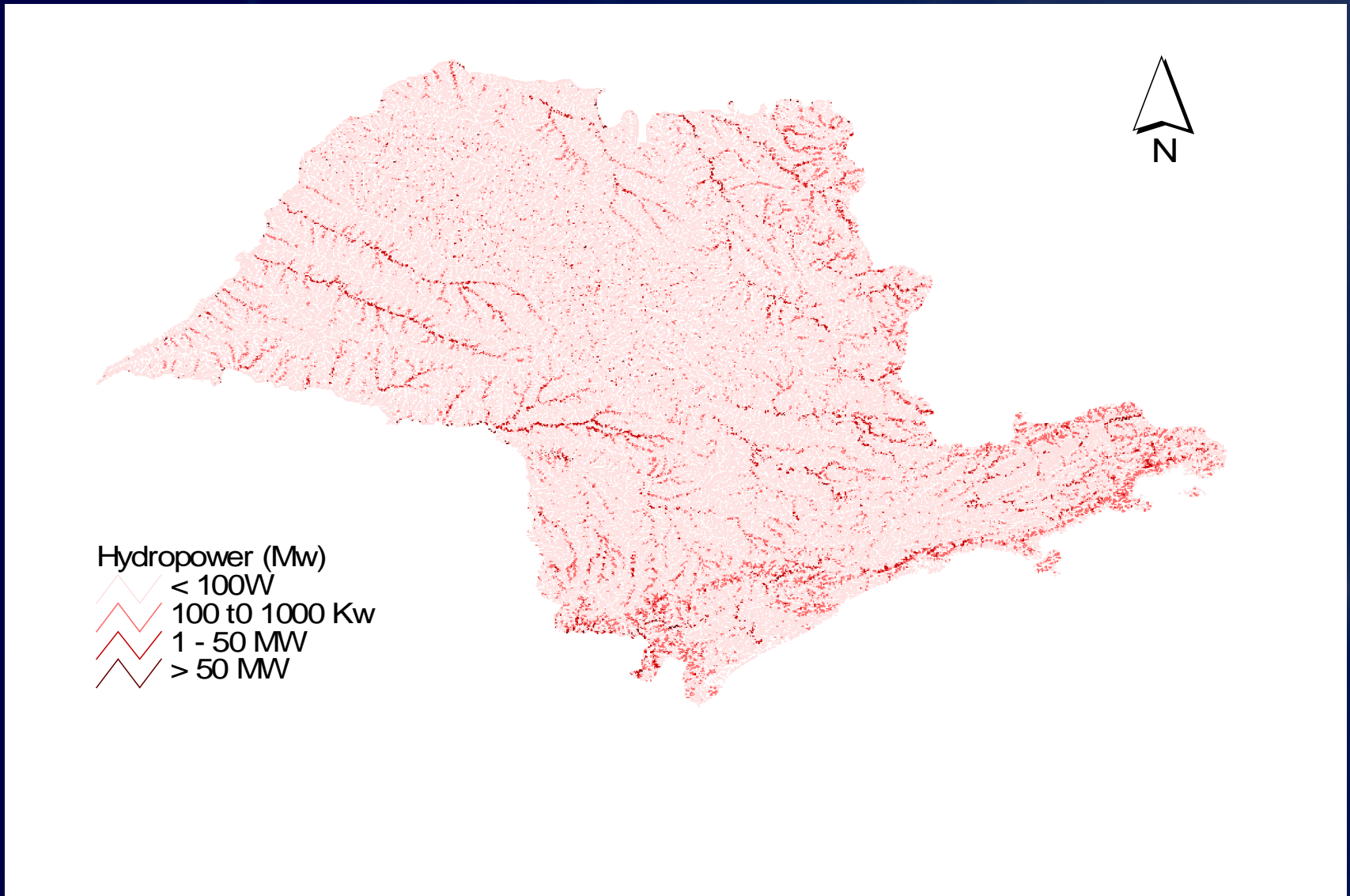
Support in the production of a South American regional base map

- n Identification of base maps to be developed: positioning network, terrain, populated places, hydrography, political/administrative borders, land use/coverage, roads
- n Definition of the work methodology (e.g. scales, glossary, spatial representation, etc.)
- n Drafting of an inventory of the national base maps available at the geographical institutes of the region
- n Organization of workshops to harmonize the data in border areas and standardize classification systems
- n Drawing of integrated regional maps; verification by the participating bodies
- n Hosting of the maps in the COSIPLAN regional map service

Possible Applications of the Proposed Geographic Platform

- n Analysis of the hydroelectric potential in any South American country having reliable hydrological data
- n Adjustment of the visibility analysis tool to be used in planning the South American Connectivity Network
- n Quick assessment of the impact of infrastructure projects (Cóndor module)
- n Modeling of the actual length of existing roads for repaving and road improvement projects
- n Determination of areas subject to landslide or flooding hazards for the alignment of new roads (PSI project)
- n Adaptation of the project planning platform developed by ITC, the Netherlands (open source SW) to the region
- n Collaboration with CSIRO to ensure “water balance” in South America (source: 30-meter SRTM data and other)

Assessment of the Hydroelectric Potential, São Paulo, Brazil



This potential was assessed in 10,000 points within the hydrological network