



GeoSUR

The Latin American and Caribbean Geospatial Information Network

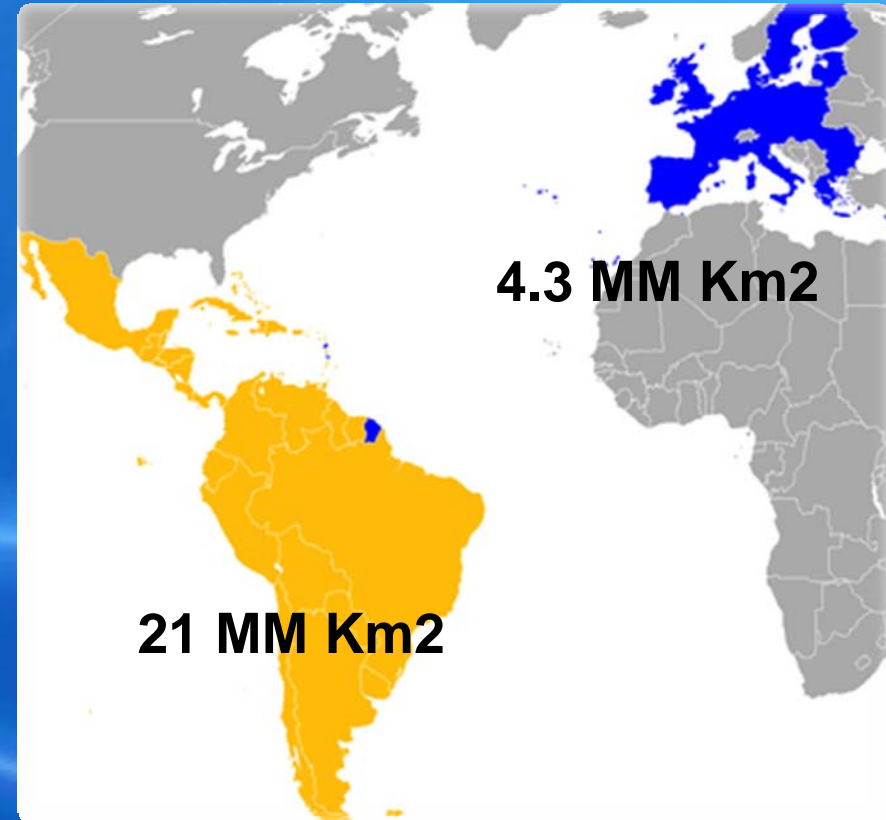
**10th UNRCC -Americas
United Nations, New York
August 22, 2013**

Eric van Praag, GeoSUR Coordinator
CAF – The Development Bank of Latin America



Scope: Latin America and the Caribbean

- n **Area:** 21 MM Km²
- n **Population:** 610 MM
- n **GDP:** \$ 5.16 trillion
- n **Countries:** 33
- n **Biodiversity:** Highest in the world
- n **2050 projection:**
2 LAC economies among the
worlds 5 biggest (Goldman Sachs)



CAF – the Latin American Development Bank



- n Supports sustainable development, integration and competitiveness
- n **Type A member countries** : Argentina, Bolivia, Brasil, Colombia, Ecuador, Panamá, Paraguay, Perú, Uruguay and Venezuela
- n **Type C member countries**: Chile, Costa Rica, España, Portugal, Jamaica, México, Portugal, República Dominicana and Trinidad & Tobago

CAF – The Latin American Development Bank



Topics

Education, infrastructure, health, social services, water treatment, banking, mining, energy, urban transport



The New Paradigm: The GeoWeb

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Maps

The world in your pocket

Mapmakers are competing for your smartphone

Oct 27th 2012 | from the print edition

WHAT IS A map? "There are two things you want," says Peter Birch, product manager for Google Earth. "One is to find your way...how do you remove all the information except [what] you really need to answer your question?" The other is the "opposite of the cartographic aim: to create a sense of reality, a completely comprehensive representation of the world."



To do the first, you have to do the second. So that anyone can find precisely what he is looking for, he must be able to look for anything. Google's plan for the physical realm, in other words, is the same as for the digital one: "to organise the world's information to make it universally accessible and useful". It wants to map every last hiking trail and park bench, and then make it easy to find.

The detail being brought to digital mapmaking by Google and others is breathtaking. A fast-growing portion of the world is being mapped in three dimensions. Nokia is collecting minute details about roads to feed into advanced driving systems: anticipating a hill, a car can speed up in order to cruise rather than labour up the slope; or it can slow down if the driver is going too fast for a bend ahead.

Above the tarmac you can already fly, digitally, through several cities. So far Google has generated 3D versions of about 20 metropolitan areas, plus bits of others. "By the end

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Maps on smartphones

Lost

The criticism heaped on Apple shows the growing importance of cartography

Sep 29th 2012 | from the print edition

Update: On September 28th Tim Cook, Apple's chief executive, published an [open letter](#) apologising to customers for the shortcomings of the company's maps. Mr Cook even directed users to alternative map apps, writing that they could be downloaded from Apple's App Store and that Google's and Nokia's maps were available as web apps.

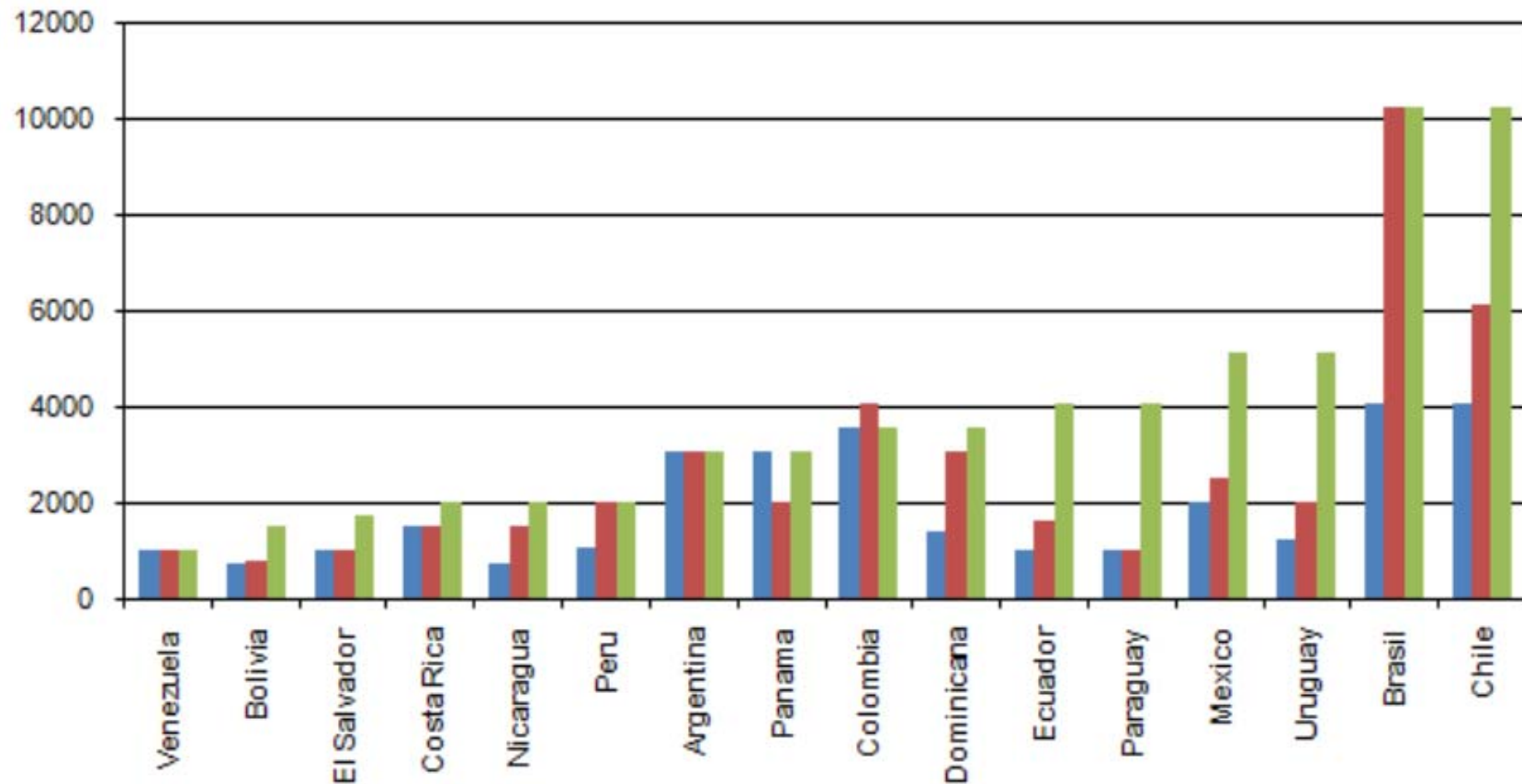


OLD hands at *The Economist* have fond memories of Mokaris, a café near our office in St James's. There was nothing fancy about the food, the prices or the service. Mokaris closed in 2005, and Franco's, the smarter Italian restaurant next door, expanded to take over the premises. But in the parallel universe of the iPhone, hungry hacks can still enjoy an omelette and chips for around a fiver. Mokaris is still on the map—at least, the map on Apple's new mobile operating system, iOS 6.

Listo

Median Internet Download Rates

Gráfico 16. Velocidad mediana de descarga disponible para banda ancha fija (2010-2012)



Main Objective

To provide decision-makers and the public with local, national, and regional geodata that facilitates the planning of physical infrastructure, environmental conservation, climate change adaptation, regional integration and other development goals

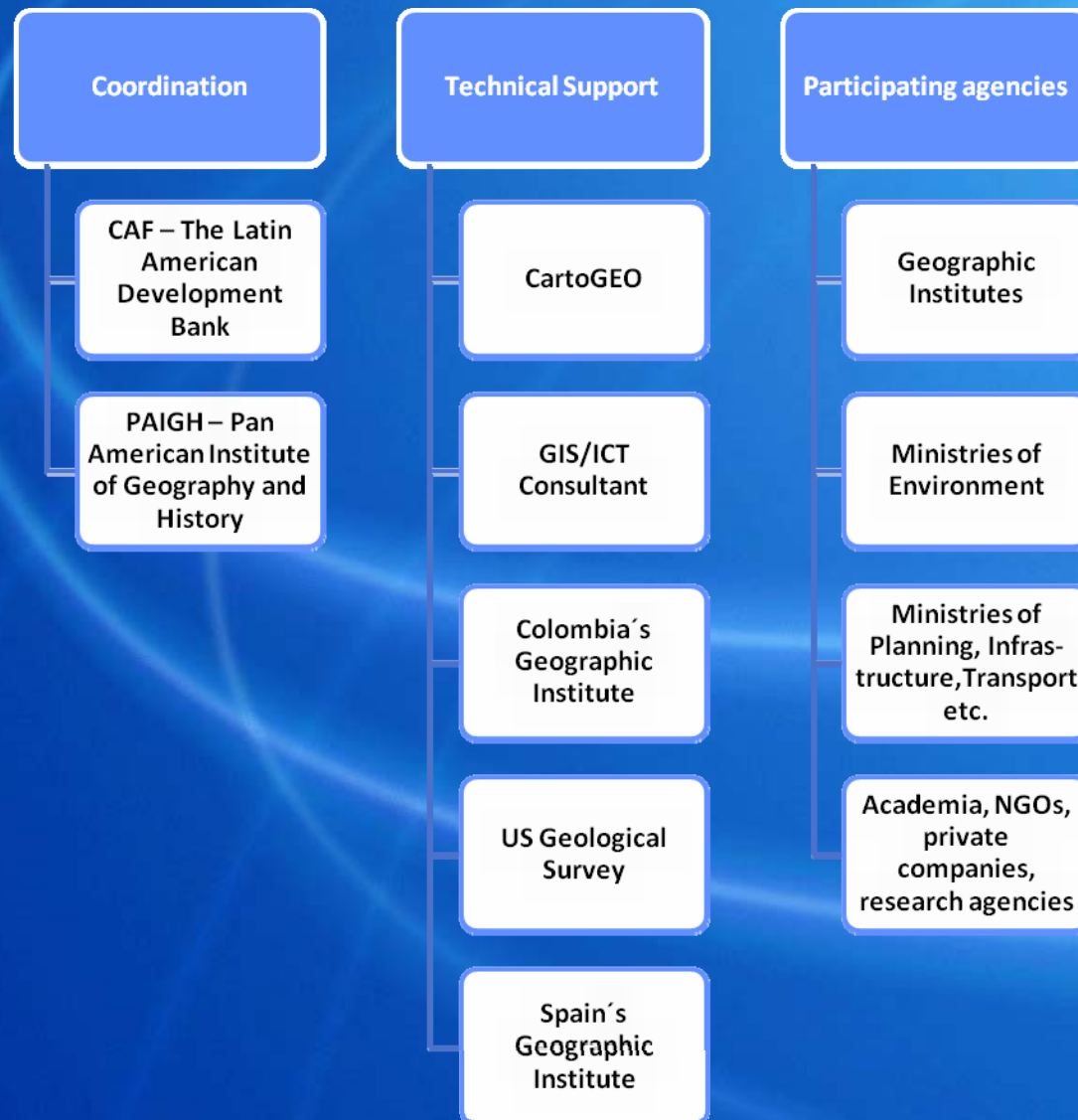


GeoSUR Program – Basic Facts

- n Led by CAF and PAIGH, the Program seeks to facilitate access by decision makers and the public to Latin American and Caribbean (LAC) geospatial data
- n More than 85 national and regional institutions are currently participating in the Program – with more invited to join
- n The geospatial network promoted by GeoSUR in LAC is fully decentralized – data is kept close to its producers
- n GeoSUR is the first Regional SDI development to be established in the LAC region
- n The SDI geoservices developed by, or with assistance from, GeoSUR are available at no cost on the web



GeoSUR's Institutional Framework



1. Instituto Geográfico Nacional , Argentina
2. Instituto Geográfico Nacional , El Salvador
3. Instituto Geográfico Nacional , Costa Rica
4. Instituto Geográfico Nacional , Perú
5. Instituto Geográfico Nacional , Guatemala
6. Instituto Geográfico, Venezuela
7. Instituto Geográfico, Colombia
8. Instituto Geográfico Militar, Chile
9. Instituto Geográfico Militar, Ecuador
10. Instituto Geográfico Militar, Bolivia
11. Instituto Cartográfico, Rep. Dominicana
12. Instituto Geográfico, Panamá
13. Servicio Geográfico Militar, Uruguay
14. Servicio Geográfico Militar, Paraguay
15. Land Information Center, Belize
16. Centro Información Espacial, Haiti
17. Management Instituut, Suriname
18. Land Information Council , Jamaica
19. IBGE, Brasil
20. INETER, Nicaragua
21. INPE, Brasil
22. Surveys and Mapping Division ,Trinidad
23. INEGI, México
24. SNIT, Chile
25. Geobolivia
26. CONCAR, Brasil
27. CLIRSEN Ecuador

28. Ministerio del Ambiente, Perú
29. Ministerio Ambiente, Rep. Dominicana
30. Ministerio del Ambiente, Costa Rica
31. Ministerio del Ambiente, Guatemala
32. Ministerio de Ambiente, Ecuador
33. Ministerio de Ambiente, Brasil
34. Dirección Medio Ambiente, Uruguay
35. IDEAM , Colombia
36. CIREN, Chile
37. Instituto Von Humboldt, Colombia
38. Secretaría de Ambiente, Paraguay
39. Autoridad Nacional Ambiente, Panamá
40. Ministerio de Medio Ambiente, Chile

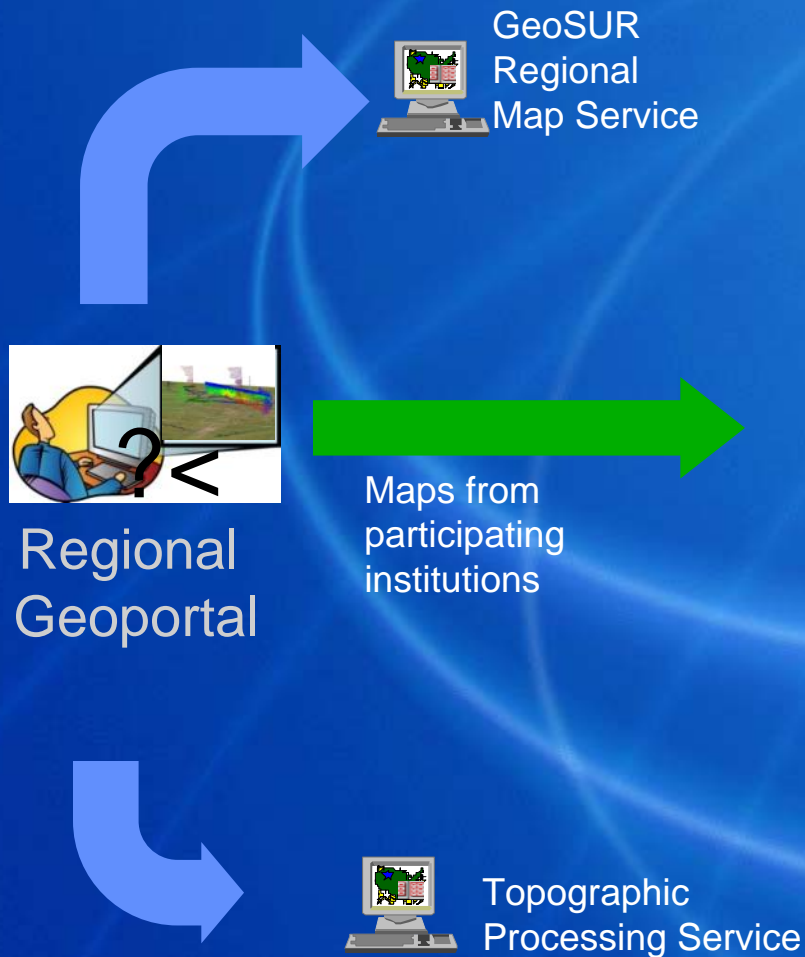
41. Ministerio Obras Públicas, Chile
42. Ministerio Obras Públicas, Paraguay
43. Ministerio de Transporte, Perú
44. Ministerio de Transporte, Colombia
45. Ministerio Desarrollo Urbano, El Salvador
46. Consejo Nacional de Electricidad, Ecuador
47. SEGEPLAN, Guatemala
48. ANATI Panamá
49. IVIC, Venezuela
50. CPDI, Venezuela
51. Instituto Nacional de Estadísticas, Bolivia
52. Instituto Nacional Estadística, Panamá
53. Instituto Nacional Estadística, Costa Rica
54. Instituto Socio Ambiental, Brasil
55. Programa Catastro, Costa Rica
56. Instituto Geológico INGEMMET ,Perú

57. Intendencia de Montevideo
58. Alcaldía de Bogotá
59. Alcaldía de Chacao
60. Gobernación de Miranda, Venezuela
61. Gobernación de Santa Cruz, Bolivia
62. Sistema Emergencias, Uruguay
63. Ministerio de Agricultura, Nicaragua
64. Water Resources Authority, Jamaica
65. Electoral Office, Jamaica
66. Universidad Tecnológica de Pereira
67. Institute of Marine Affairs, Trinidad
68. Guyra Paraguay
69. Empresa SIGIS
70. University of the West Indies, Trinidad
71. The Nature Conservancy
72. Universidad del Azuay, Ecuador
73. UNIGIS
74. Banco Interamericano de Desarrollo
75. Centro Internacional Agricultura Tropical
76. Comunidad Andina
77. JRC, Unión Europea
78. OneGeology
79. OTCA
80. IIRSA
81. ITC
82. Nature Serve
83. Proyecto USAID Andes Amazónicos

Regional and Global Relations



The GeoSUR geoservices



Services of more than 60 participating agencies

GeoSUR's Portal

GeoSUR La Red Geoespacial de América Latina y el Caribe

HOME SEARCH FOR DATA REGIONAL MAP VIEWER NEWS REGISTER CONTACT US

PARTNER RESOURCES

- Map Viewers
- WMS Services
- WFS Services
- CSW Services
- Topographic Service

LATEST NEWS

- GeoSUR's participation in OGC and GSDI Committees
- Earthzine publishes article on GeoSUR
- GeoSUR undertakes hydro power assessment in Sao Paulo
- GeoSUR launches New Design for the GeoSUR Portal
- more...

Map of the Month

New geospatial service developed by the Inter-American Development Bank to visualize its project portfolio

GEOSUR RESOURCES

- About the Program
- Technical Assistance
- Participants
- GeoSUR's Library
- Frequently Asked Questions
- Feedback

Tell us if you have used the GeoSUR portal, map services and catalogs to

- Make decisions
- To locate spatial data
- To view spatial data
- Evaluate the usefulness of a dataset
- Obtain a description of a spatial dataset
- Download data

Welcome to GeoSUR

The GeoSUR Portal provides an entry point to spatial data published by Latin American and Caribbean agencies. The data may be consulted directly by means of partner map services, a **regional map viewer** contained in this portal or through various metadata services.

Most of the spatial information available in this portal is available in map services operated by participating agencies in a decentralized fashion. These services are owned by spatial data producers from the region. These institutions register their various geoservices and their metadata with the portal in order to make them available to the public. No special skills or special software is required to use the portal; it is free and open to the public.

The GeoSUR Program is led by CAF - the Latin American Development Bank and PAIGH the Pan American Institute of Geography and History. The Portal was developed with the technical support of the U.S. Geological Survey (USGS).

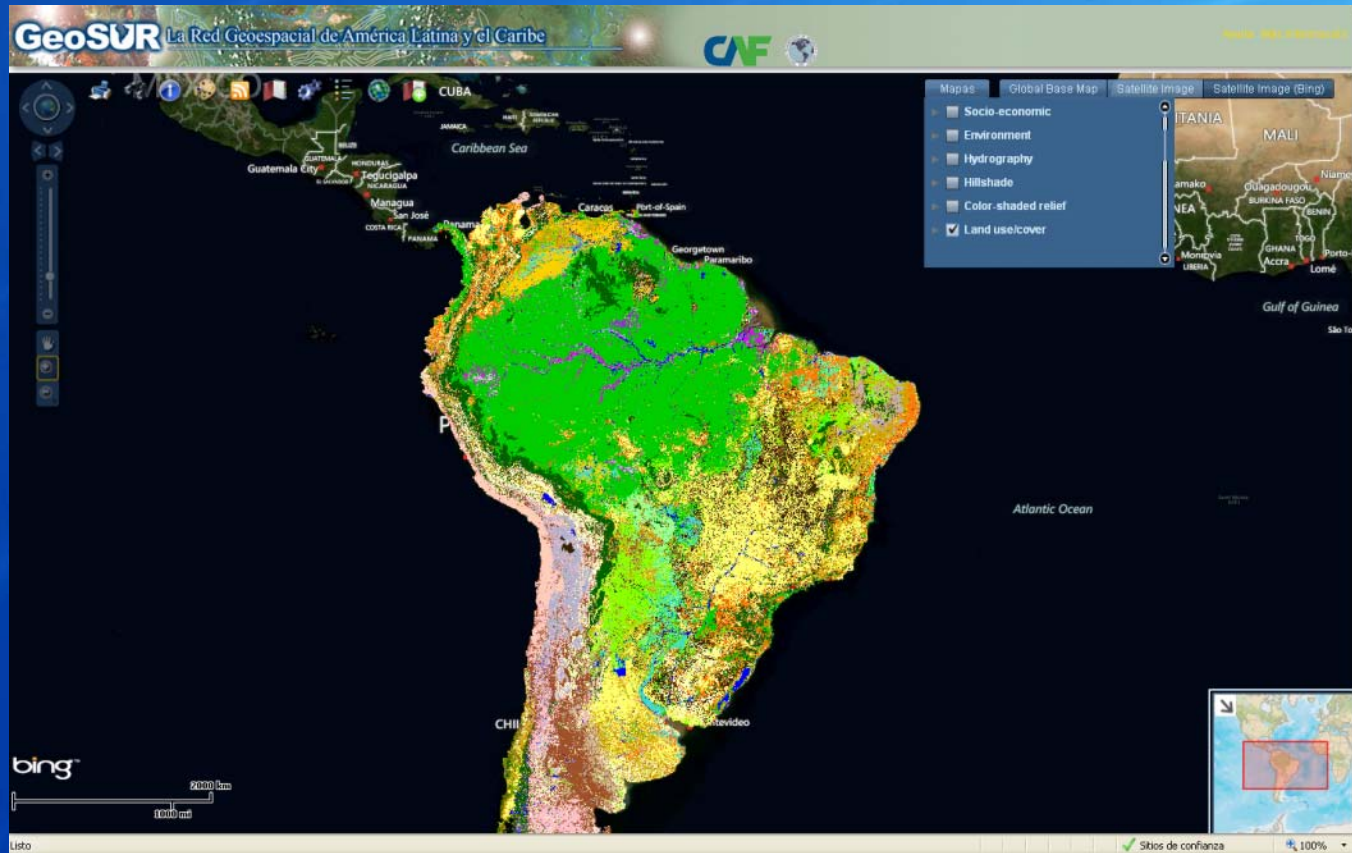
Training Corner

GeoSUR Workshop 2011
August 15th, 2011

Decision Support Tools, by ITC (Webinar)

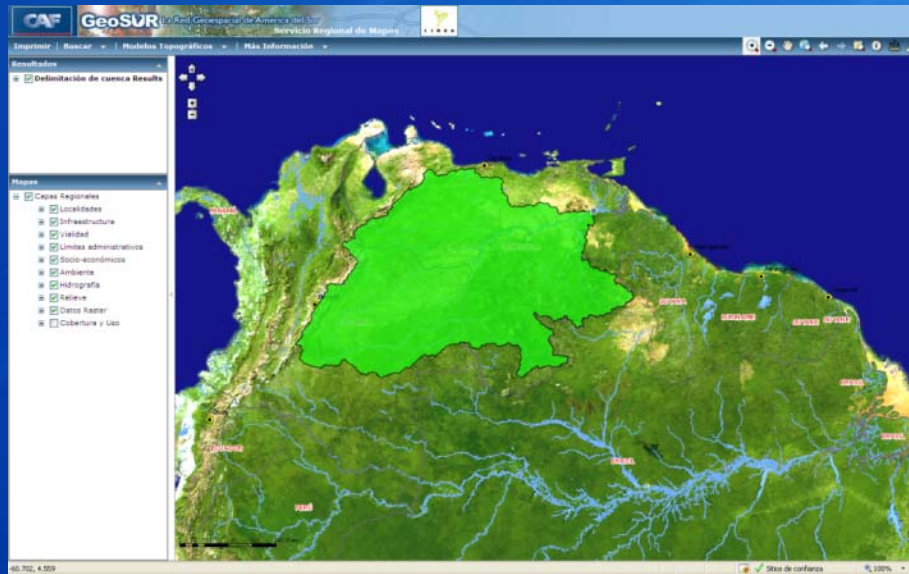
- n Point of entry to all of GeoSUR's maps and services
- n Offers access to a decentralized network with more than 4,000 maps online
- n Available at www.geosur.info

GeoSUR's Latin American Map Service



- n Provides access to more than 100 regional maps
- n Free access, user can view and download the datasets at no cost
- n Developed with support from the U.S. Geological Survey

Topographic Processing Service



- n Free tool
- n User can produce a watershed delineation, slope map, watershed analysis, elevation map, and carry several other analysis
- n First of its kind in the developing world
- n Can be enhanced to incorporate climate change analysis

GeoSUR's Guiding Principles

- Respect of participating agencies' data policies
- Decentralized approach, each data producer operates and maintains its own geoservices
- Technological neutrality, support of open source and commercial platforms
- Emphasis in the use of standards and protocols to reach interoperability
- Work is aligned with National SDIs
- Geospatial information is considered a public good which supports the development of the LAC region

Practical GeoSUR applications

Application	Example
Find spatial data produced by member agencies from anywhere in the world	<ul style="list-style-type: none">• Need a protected area map of Paraguay in order to conduct a technical assistance visit
Obtain very quickly regional maps of the LAC region on different topics	<ul style="list-style-type: none">• Need a map of protected areas of Central America for a regional study• Need to identify environmentally vulnerable areas in the Andean region
Build a custom map of three neighboring countries using official data	<ul style="list-style-type: none">• Need an official map of Venezuela, Colombia and Ecuador with official data. This is doable by invoking the three official maps from the geographic institutes map services and adding this data to the GeoSUR Portal Viewer)
Viewshed analysis	<ul style="list-style-type: none">• Identify ideal locations in a mountainous region for placing cellular transmission towers for maximum coverage of potential cellular users

New Regional Datasets (1)

Datasets	Source
Forest biomass map of South America	Woods Hole
Urban expansion in Latin America	Yale School of Forestry
Latin American Forest Canopy Map	NASA, JPL
Latin American Mangrove Map	NASA, JPL
<u>Flood Maps for Latin American</u>	Dartmouth Flood Observatory
Forest Cover 1999 – 2011, South America	Maryland University
Landslide Prone Areas, Ecuador y El Salvador	Universidad de Buffalo
Central American Ecosystem Map	World Bank
Flood Map, 15 Honduras Municipalities	USGS

New Regional Datasets (2)

Datasets	Source
Montly Deforestation, Gran Chaco, South America	Guyra Paraguay
Endangered Species Map	Nature Serve
Map of Radiation at Night	CIESIN
Condór's Datasets	ESRI Venezuela
Hydrogeology Map of South America	
Mineral Deposits, South America	USGS
Land Cover and Use Map of Latin America	European Spatial Agency
Biodiversity Maps	Nature Serve
Map of Andean Ecosystems	Andean Community

The way forward



GeoSUR Program – Plans for 2012-2014

- n Incorporate agencies from new sectors
- n Incorporate new agencies from South America, including NGOs, research labs, universities, ministries of planning and infrastructure, and other agencies that produce geographic information
- n Continue to provide capacity-building, technical assistance and oversight to partner agencies as they develop geoservices
- n Incorporate higher resolution data useful for local planning as carried out by municipalities
- n Improve the performance of all existing geoservices and incorporate new spatial datasets to the platform
- n Facilitate the incorporation of spatial data into the mainstream decision-making process in Latin America

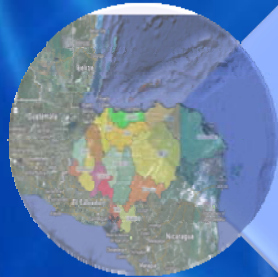
New regional datasets



Cloud hosting, virtual workshops, and more . .



Cloud hosting, Map Service,
CNR El Salvador

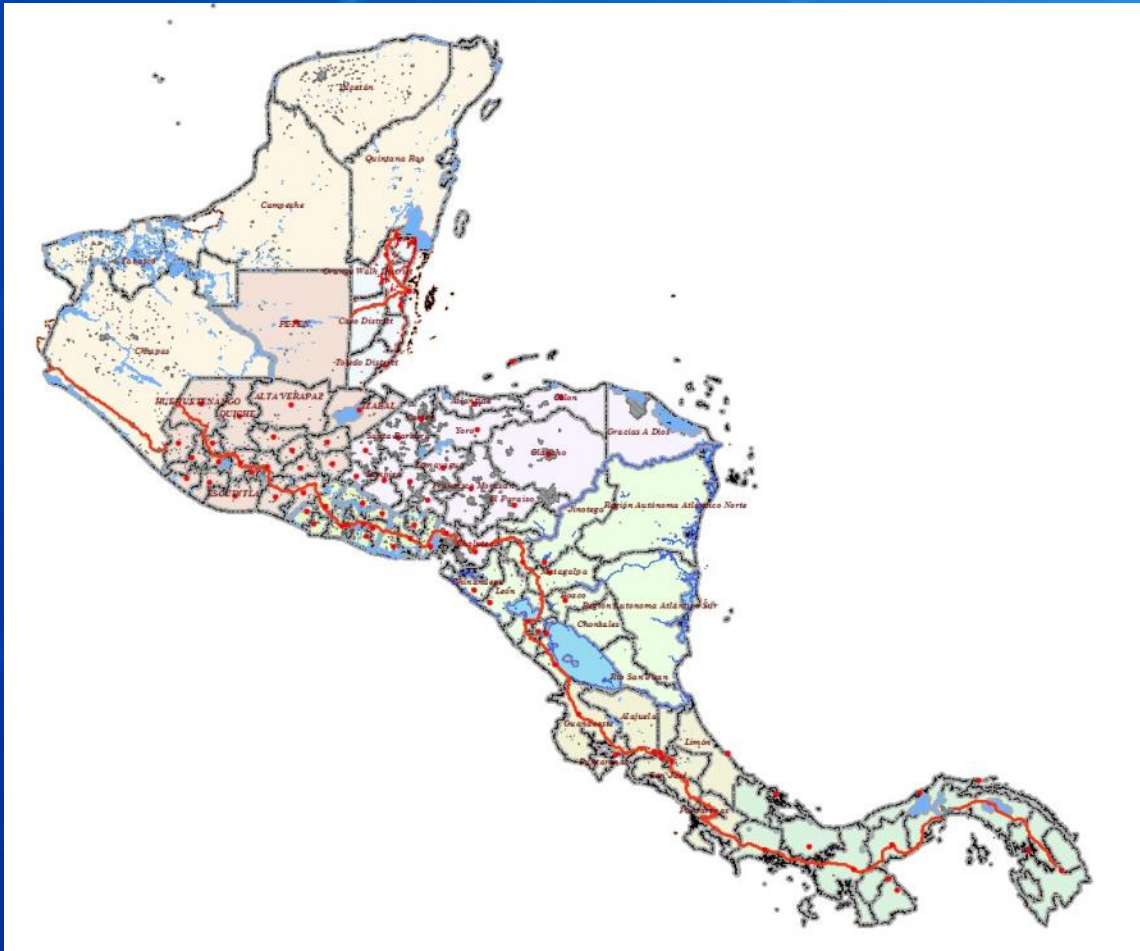


Cloud hosting, Map Service,
Cadastral Agency, Honduras



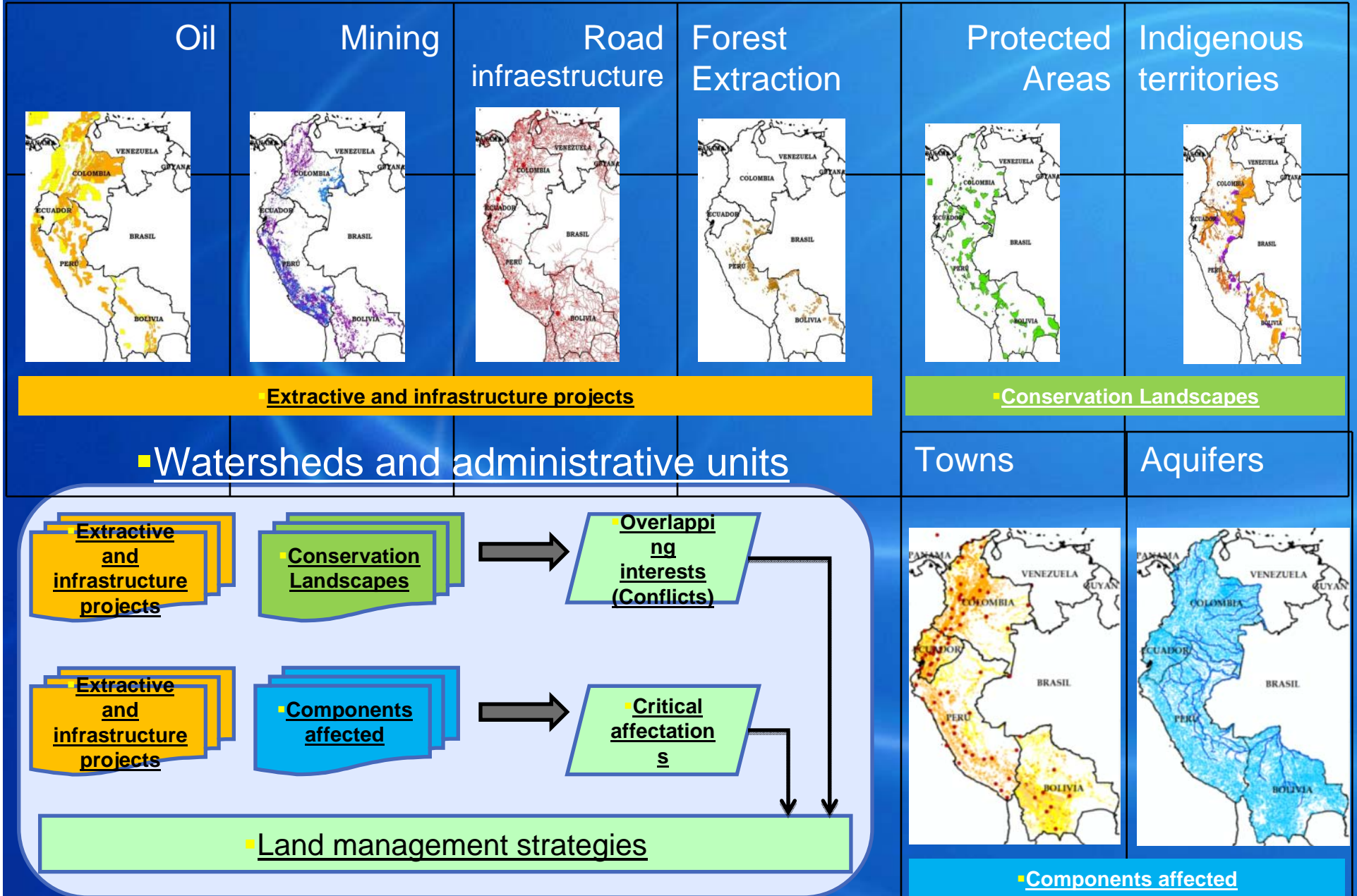
Virtual training on environmental
indicators and map services, with
IGN Spain and UNEP

Integrated Mesoamerican Map



- n 8 thematic layers
- n 1:250.000 scale
- n Produced in 3 regional workshops with SMA specialists
- n Supported by PAIGH, CAF, the USGS and the SMAs of Mesoamerica
- n Will be available in GeoSUR in July
- n Methodology could be expanded to South America

Online decision-making tools



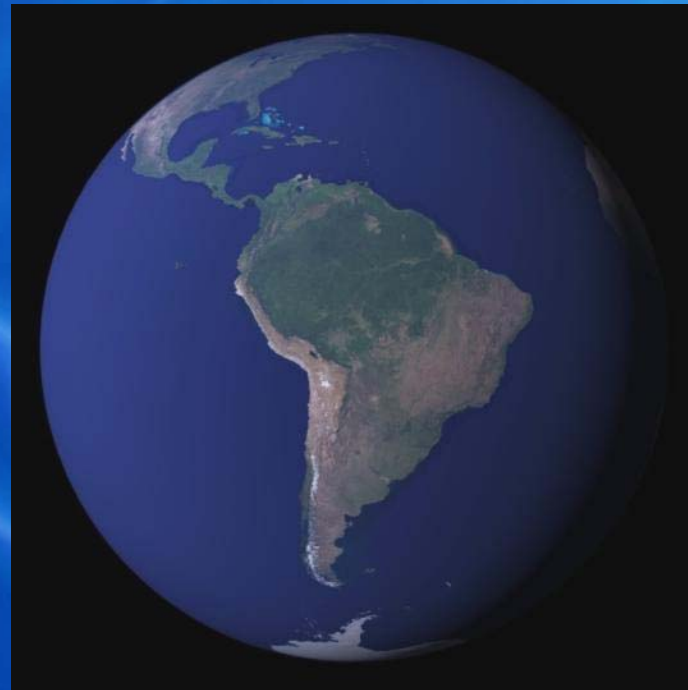
The logo for CAF (The Latin American Development Bank) consists of the letters 'CAF' in a bold, white, sans-serif font on a black rectangular background.

FINANCIANDO EL DESARROLLO • AMÉRICA LATINA

GeoSUR



Geospatial Information for Latin American and Caribbean Integration



CAF The Latin American Development Bank

Eric van Praag, Coordinator GeoSUR
CAF – The Latin American Development Bank