



“GeoSUR develops geographic services on a free-access web platform”

The Editor's Note

Eric has said goodbye to GeoSUR, the unique program coordinator since its inception, its technical capacity and willingness to foster regional cooperation for the benefit of the geospatial information community will be missed; we hope to continue having his contributions from its new professional position. Potential interests of multilateral organizations to cooperate with GEO, the connection of geodata globally and the representation of the region's countries with this group is discussed in the interview of the month. Relevant PAIGH management activities in recent months, the release of SRTM 30 meter resolution Elevation Model and publication of the Global Map

of South America in the GeoSUR portal are included in the permanent columns of this edition.

GeoSUR newsletter seeks to disseminate GeoSUR Program's achievements and characteristics as well as events, projects and best practices for the application of GI into sustainable development and decision making in the region, as part of the Geospatial Data Infrastructure of the Americas. The Portuguese translation is performed by **Eduardo Freitas**, Manager of the GEOeduc Institute of Brazil. Please send your contributions and suggestions to: **Nancy Aguirre**, Editor of GeoSUR Newsletter, at cnaguirre@ipgh.org.

Inside this Issue:

- The interview of the month with Barbara Ryan, Director of the Secretariat of the Group on Earth Observations (GEO) since 2012.
- Eric van Praag, unique GeoSUR Program coordinator since its inception, says goodbye from its desktop recounting their achievements in eight years.
- The General Secretariat of PAIGH sums up some of the major efforts of the Institute in the last months of 2014.

We thank our readers for their support during 2014 and wish you a successful year 2015!



Barbara J. Ryan is the Secretariat Director of the intergovernmental Group on Earth Observations (GEO) in Geneva, Switzerland. Since becoming Director in 2012, Ryan has worked to integrate Earth observation systems from around the world into a single, comprehensive system of systems that uses coordinated data to understand how environmental factors impact human life.

“GEO's work in this area is helping with the exchange of data associated with early warnings and on trying to generate more support and interest in regional early warning products.”

“It is pretty hard to get harmonized data across the whole globe at a very fine resolution”: Barbara J. Ryan, Secretariat Director of the Group on Earth Observations (GEO) talks about Multilateral Cooperation, GEOSS, and the LAC Region

GEO has developed a working relationship with a group of multilateral development banks. Which areas of potential collaboration do you foresee in the case of Latin America and the Caribbean (LAC) that could attract multilateral organizations working in this region to cooperate with GEO?

That's a very good question. We have just come out of a meeting with the GEOSS in the Americas group which includes representatives from the entire Americas Caucus (South, Central and North America), and we spent a couple of days talking about key issues or thematic areas that are common to all the members of the American Caucus.

The first issue was agriculture and participants were quite interested in the variability of climate change and how it would affect agriculture and food security.

The second issue was disasters and reducing the risk of disasters. GEO's work in this area is helping with the exchange of data associated with early warnings and on trying to generate more support and interest in regional early warning products.

Water was the third issue and we spent a lot of time talking about how to approach water resources in its entirety, including ground water, surface water, water use, water quality, and how water is managed.

And then the last thematic area discussed was ecosystem monitoring. Many technical people focus on the differences between a species approach to biodiversity, and a landscape approach to ecosystems. If we broadened our thinking to include ecosystem services, both the species and landscape communities may find more commonality.



"The meeting in Mexico was part of a broader week with two different organizations: the Latin American Geospatial Forum (LAGF), and the UNGGIM-Americas; GEO held a one day workshop on GEOSS in the Americas."

"...I would say that the big lesson for me that came out of the meetings was that the work GEO is doing internationally by linking all types of data for these societal benefit areas is equally important in smaller geographic areas -- continents, individual countries and/or states."

"So one of our jobs is to get full representation from South America and the Caribbean Region. One way that countries benefit by joining GEO is seeing best practices of other countries, and so they can take those lessons home and leverage their resources more fully..."

Barbara J. Ryan, continues...

In addition to exploring these four thematic areas, we would certainly like to work more closely with CAF and other international development banks to make sure that we have a good understanding of their needs or requirements, so that we could better tailor our products and/or studies to those needs.

GEOSS is performing successfully in their societal benefit areas, and recently organized another meeting in Mexico. What were the key outcomes of this meeting?

The GEOSS in the Americas meeting in Mexico was part of an entire week of sessions with two other organizations: the Latin American Geospatial Forum (LAGF), and the UNGGIM: Americas.

During this entire week, many, if not all, of the nine societal benefit areas that GEO has (agriculture, biodiversity, climate, disasters, ecosystems, energy, health, water, weather) were debated.

A lot of discussion took place across the whole portfolio, and I would say that the big lesson for me that came out of the meetings was that the work GEO is doing internationally by linking all types of data for these societal benefit areas is equally important in smaller geographic areas -- continents, individual countries and/or states.

So the integration of all this information is something that we all face, and must all tackle.

It is pretty hard to get harmonized data across the whole globe at a very fine resolution, but if we can get global coverage of some selected datasets and then overtime start to

complement it with higher resolution data where it is available, then that's pretty good; it won't happen overnight, but maybe ten years from now, one can look back and say, "Well, we made a lot of progress"!

Do you have a special recommendation for the LAC region to work with GEOSS?

Colombia is chairing the Americas Caucus this year. So in addition to being one of the 95 member countries of GEO, Colombia is also one of the 13 member countries on our Executive Committee.

There are five Caucuses around the world --- Africa, Americas, Asia-Oceania, Commonwealth of Independent States (CIS) and Europe.

If you look at our Website you will see our member countries and a map showing where we still have missing countries.

We would like all the countries in South and Central America to become GEO members.

So one of our jobs is to get full representation from South America and the Caribbean Region. One way that countries benefit by joining GEO is seeing best practices of other countries, and so they can take those lessons home and leverage their resources more fully.

And it is not just sharing lessons from the developed world with the developing world.

It is also the other way around. Lessons are learned from the north to the south, from the east to the west, and coming together in an organization like GEO is a wonderful way to take best practices home no matter where you live.



Geo Report on Progress 2011-2013



GEOSS Portal

“We have a lot of space agencies that are members of GEO, and if we can better integrated space-based observations with the more traditional mapping information from organizations that are largely represented in UNGGIM then each of the societal benefit areas -- agriculture, biodiversity, ecosystems, water, etc. will all benefit.”

“GEO and GeoSUR have common objectives. We both want to make sure that the information that is collected is used to answer society’s problems.”

Barbara J. Ryan, continues...

There is growing interest in LAC in the United Nations GGIM initiative. Is GEOSS cooperating with this UN effort and what from your perspective, is its potential for developing regions?

We have now been granted Observer status in UNGGIM, and we hope UNGGIM will join GEO as another partner along with some of the other UN organizations.

We have a lot of space agencies that are members of GEO, and if we can better integrated space-based observations with the more traditional mapping information from organizations that are largely represented in UNGGIM then each of the societal benefit areas -- agriculture, biodiversity, ecosystems, water, etc. will all benefit.

Another thing that we do is to advocate for broad, open data policies for government data.

We really believe in the power of Earth observations and some agencies are still selling their data. So we are now trying to get the message out that for government data, the citizens have already paid for these data, and should not have to pay again.

As you might imagine, we still have a lot of communicating to do!

I can speak to this from both the USGS perspective when I worked with Landsat data, and now from the GEO perspective.

The United States sold Landsat data for many years, and yet it was not until 2008 when the data policy changed to release it freely over the Web that the downloads increased by two orders of magnitude – 51 scenes per day to 5,700 scenes per day.

So it is essential that government agencies get their data out the door and into the hands of users for free, or at least the cost of distribution.

What do you think are the main areas for cooperating among GeoSUR Program and GEO?

GEO and GeoSUR have common objectives. We both want to make sure that the information that is collected is used to answer society's problems.

While we in GEO are working internationally, it is really important to also have partnerships regionally or nationally because that's where implementation occurs and that's where many decisions, thousands of decisions are made every day by all levels of governments and partners, in all organizations in all parts of the world.

So for me, that is one of the greatest things that will come out of closer cooperation.

[GEO Home page](#)

[GEOSS Portal](#)

[GEO Report on Progress 2011-2013](#)

Information on the 11th Plenary Meeting (GEO-XI) held on November 13-14, 2014 in Geneva, Switzerland:
<http://www.earthobservations.org/geo11.php>

From Eric's Desk

Dear friends, I write my last column in this newsletter because I am leaving this month the Program Coordination and stepping down of CAF to face new professional challenges in ESRI as from January.

It's been eight years of intense and enriching work in front of GeoSUR.

The Program has grown and consolidated over the past eight years and is now an international benchmark for developing countries.

It has established an extensive network of spatial information suppliers that through GeoSUR can give a regional perspective to local and national data for Latin America and the Caribbean, and also a regional spatial platform and a network of geoservices that are regionally unique in scope, variety and functionality.

CAF, as a development bank in the region, is committed to continue supporting the advancement of this initiative in the coming years.

As coordinator I have seen up close the great changes in the geospatial sciences in the region and in the world during this exciting period.

Latin America has made some important progress and I do consider the consolidation of national SDI in several countries is definitely a step forward.

However, there remains a significant gap with the progress made by developed countries that are advancing steadily to incorporate GI into their development processes.

We have a responsibility to narrow that gap and to convince our governments that GI is a key factor for development.

I think we should concentrate our efforts on producing applications for practical purposes and that meet real needs of our societies.

It is impossible thanking in such a short space to the huge number of specialists and institutions that have supported GeoSUR over the years, but I cannot say goodbye without acknowledging the contributions of PAIGH, the USGS and CAF, and the support of more than 110 organizations in the region and outside the region who have trusted in the Program, their support has been invaluable to making GeoSUR a reality.

Santiago Borrero, who was Director of IGAC in Colombia and Secretary General of the PAIGH, who has been promoting and working with the Program since its inception, is responsible for coordinating the Program in this period of transition.

Nobody is better than Santiago to boosting the Program during this phase.

I hope we keep in touch and please count on my support to promote the use of GI in Latin America and the Caribbean.

Happy 2015!



Eric van Praag, GeoSUR Program Coordinator (2007-2014)

From PAIGH's Secretary General

Between November 10 and 14 this year, a series of meetings took place in the context of the 45th Meeting of the Directing Council of PAIGH, from which is highlighted the one related to the Joint Action Plan to accelerate the development of SDI in the Americas that took place in Santiago, Chile, with participation of principals of SIRGAS, GeoSUR, UN-GGIM: Americas, and PAIGH, resulting in a new commitment document reaffirming the mutual cooperation programs.

The 7th GeoSUR Meeting also took place, where the role of PAIGH was confirmed as coordinator of this Program in line with CAF for continental mapping integration.

The meeting of the Directive Council of PAIGH was very productive.

28 resolutions aligned with the Pan American Agenda and the said Joint Action Plan were adopted, underlining the one related to the strengthening of economic and historical studies of the Institute, as well as that supporting PAIGH's actions as a facilitator for generating an integrated continental map.

A Memorandum of Understanding with the Uruguayan International Cooperation Agency was also ratified. All resolutions are available at: <http://www.ipgh.org/consejo-directivo/45-rcd/default.html>.

On the other hand, I have participated in a number of relevant meetings at headquarters of the OAS: In the Third Hemispheric Meeting of the Inter-American Network for Disaster Mitigation, in the OAS meeting of the Inter-American

Committee on Natural Disaster Reduction, in discussions sponsored by the Office for the Coordination of Humanitarian Affairs of the UN, and with the head of the American Initiative on Land Registry.

In Mexico City it was salient the launch of the book "Comparative History of Migration in the Americas," and the International Seminar on "Comparative History of the Americas: Cultural Integration Maps" under the auspices of the Institute's Commission on History.

The PAIGH has links with many specialized organizations with initiatives in our region.

This reaffirms once again the commitment to cooperation towards a true Pan American integration, which is demonstrated through the work of many specialists and professionals with whom I have shared this year, where the vocation of service towards improving the quality of life of the inhabitants of the region has been a premise making me very proud to be part of this effort.

I take this opportunity to wish each and every one of the readers and their families a Happy 2015. May God bless you.



7th Meeting of GeoSUR Program



Delegates to the 45th Meeting of the Directive Council of PAIGH held in the Hall Bernardo O'Higgins in the Chilean Ministry of Foreign Affairs; in the background is the "Palacio de la Moneda" very close to the venue of the meeting



Participation of the Secretary General of PAIGH at the International Seminar "Comparative History of the Americas: Cultural Integration Maps "

GeoSUR Portal's Novelties

November and December were very productive months in GeoSUR. The big news of the period is the release of the SRTM 30 Meter Resolution Elevation Model for Latin America and the Caribbean, which from now on is available for public access. With support from the USGS access was granted from the Topographic Processing Service to be available on the GeoSUR Regional Viewer (www.geosur.info), and it is now possible to freely download any area of the region using the extraction freed data widget.

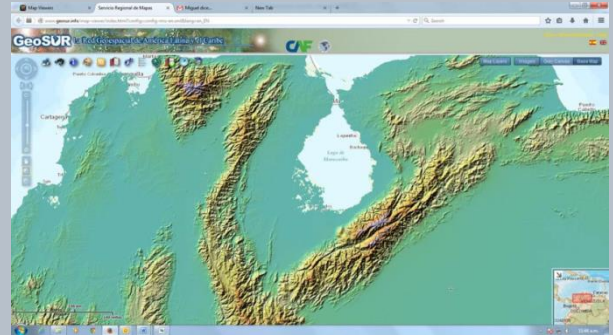
For these months is also highlighted the provision of the Flood Map of Latin America in 2011 in a WMS service, which was produced by the University of Colorado for GeoSUR and is also available for download from the portal. The maps of the 2014 floods and the period from 2000 to 2010 are under review and will be posted on the Website and viewer in January.

The Global Map of South America, at scale of 1: 1MM compiled by the Military Geographic Institute of Chile - with resources from PAIGH -, and historical maps of the urban sprawl of Buenos Aires, Ciudad de Guatemala, Santiago and Sao Paulo since 1800 to the present (courtesy of the Lincoln Institute) were also joined into the viewer. More than 160 infrastructure projects funded by CAF between 2010 and 2014 were georeferenced and are now available in the GeoSUR viewer for observation and downloading.

With support from the University of Colorado 20 new items were added to the Red River Watch for remote monitoring of discharge in Colombia, Venezuela, and Bolivia and are now available in the GeoSUR viewer. We are considering using data from Bolivia in a study of hydroelectric potential that is conducted by CAF to cover some areas of this country that do not have land stations for flow measurement, which is an application that could be extended to other countries.

Two study visits were conducted within a project advanced by CAF and PAIGH with funding from the Eye on Earth initiative in order to support institutions in the region to migrate data and geo-services to The Cloud. One visit took place in the Province of Córdoba-Government in Argentina, and the other in the National Center for Spatial Information (CNGIS) of Haiti. Both visits were conducted by Miguel Blanco, GeoSUR consultant, and during them were put into operation mapping services in The Cloud that were recorded in the GeoSUR portal.

GeoSUR continues advancing a study of hydropower potential that is underway in Bolivia and Peru. In Peru the first phase of the study was completed and the theoretical hydropower potential of more than 300,000 points of the hydrological network of this country was estimated; while in Bolivia the study for two priority watersheds was completed in December. With the release of the SRTM 30m Model this type of study could be replicated to other countries in the region.



SRTM 30 Meter Resolution Elevation Model for Latin America and the Caribbean available for public access in the [GeoSUR Portal](http://www.geosur.info)



Global Map of South America, at scale of 1:1MM now available in the [GeoSUR map viewer](http://www.geosur.info) (Edwin Hunt, Principal Investigator and Susana Arciniegas, Coordinator of the Working Group)

GeoSUR Program: Basic Figures

Years in Operation	8
Participating Institutions	110
Beneficiary Countries	26
GeoSUR Network Specialists	550
Officials Trained (6 Regional Workshops)	250
CAF Officials Trained	130
Virtual Workshops Offered	40
Available Digital Maps	20,000
Available Metadata	14,000
Map Services (WMS)	310
WFS Services	25

Webpage: <http://www.geosur.info>

Other events in the region

PERU: IMPLEMENTATION OF SERVICES IN THE CLOUD IN THE MINAM GEOSERVER

In order to support the Ministry of Environment (in Spanish MINAM) in the implementation and development of high-speed services for accessing digital maps and storing spatial data for Territorial Ordering, Paloma Abab, engineer and head of Infrastructure in the National Geographic Information Center of the National Geographic Institute (in Spanish IGN) of Spain visited MINAM as part of the activities planned within the Institutional Cooperation sponsored by the Pan-American Institute of Geography and History (PAIGH) and the GeoSUR Regional Program, which have been promoting the implementation of territorial information services for decision-making and development planning in the region.

"This is an important initiative that will upload and host cloud cyberspace Geoserver information. This will generate a new service for free access to maps and satellite images, including spatial analysis, so that more people have access to high speed while reducing costs," said the CEO of MINAM Territorial Ordering, Fernando Neyra, who thanked the support that has been provided by the IGN of Spain, PAIGH and GeoSUR to this institution.

[Source: MINAM by way of Alexander Montero, DGOT,

"This will generate a new service for free access to maps and satellite images, including spatial analysis, so that more people have access to high speed while reducing costs," said the CEO of MINAM Territorial Ordering, Fernando Neyra..."



MINAM (Peru) receives official visit of the National Geographic Institute of Spain to improving access to its Geoserver

FIRST INTER-AMERICAN DIALOGUE ON CADASTRE AND REGISTRATION OF PROPERTY

The first inter-American dialogue on cadastre and land registration, framed on the initiative for creation of the Inter-American Network of Cadastre and Land Registry took place on December 9 in Washington DC, also with participation via the Web.

The main objectives were to discuss details about the launch of this inter-American initiative in a diverse stakeholder's environment as well as seeking technical and financial support for its implementation.

Participants were mainly recognized actors either working or interested in supporting the areas of cadastre and land registry, or those who use them as input in specific sectors or technical areas.

The meeting began encouraging critical thinking about the importance of cadastre and land registration, followed by a presentation on the inter-American initiative to work on these aspects.

It also included presentations from three countries (Colombia, Guatemala and Uruguay) by its Cadastre Directors with the intention of illustrating pertinent relevant aspects, and ended with a dialogue between all participants in the hearing. This dialogue generated technical and financial validations to the initiative.

[Source: Mike Mora, Department for Effective Public Management, Secretariat for Political Affairs, Organization of American States OAS].



First Inter-American Dialogue on Cadastre and Land Registration in Washington D.C.

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Other events continue...

CAF: USD 100,000 MILLION TO CLIMATE FINANCE

The International Development Finance Club (IDFC) allocated USD 100,000 million to climate financing in 2015, confirmed Enrique Garcia, Executive President of CAF- development bank of Latin America.

"The IDFC has become the world's largest source of public green finance; approximately two-thirds of public funding for the global climate, for 99 billion dollars in 2013. It has potential to further expand its financing activities in response to demand in partner countries. Therefore, it will increase a new climate annual funding for USD 100,000 million in 2015.

Thus, members of the IDFC assume the challenge of climate change, in order to promote low carbon economies and climate resilience with social inclusion," said Enrique Garcia during their participation in the COP20 High Level Climate Action Session in Lima, Peru.

"Governments should not limit their interventions to the policy and regulation; they also must do so by creating tools and incentives that reduce risk and encourage investment. Public money, which we know is scarce, must be devoted to encouraging both private investment and of all economic actors," he said.

[Source: [CAF](#)].

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GLOBAL MAP OF SOUTH AMERICA IN THE GEOSUR PORTAL



The Map of South America at 1:1MM may be accessed from the [GeoSUR Map Viewer](#)

GeoSUR, CAF and PAIGH thank the Military Geographic Institute of Chile (in Spanish IGM), Edwin Hunt as the specialist who coordinated this activity, and Susana Arciniegas, Coordinator of the Working Group (Ecuador) for the great support to the Latin American geospatial community on the preparation of this important regional map.

The map of South America at scale of 1:1,000,000 has been provided by Edwin Hunt of the IGM Chile for its inclusion in the GeoSUR Regional Map Service with the respective ISO19115 metadata.

It is freely available for your information at the GeoSUR Regional Viewer without passwords or any other restriction.

Although the map has some "gaps" of countries that did not provided their data, as in the case of The Guianas, it was considered appropriate to publish the current version in the GeoSUR Regional Portal.

[Source: Eric van Praag and Edwin Hunt].