



"GeoSUR develops geographic services on a free-access web platform"

## Inside this Issue:

- The interview of the month with Valerie Grant, president of the Caribbean URISA Chapter.
- Antonio Rodriguez, Assistant Deputy Director of CNIG (IGN Spain) refers to the current status and trends of SDI in the Iberian Peninsula.
- Santiago Borrero, from the coordination of GeoSUR talks about training offering on spatial information topics.
- Rodrigo Barriga, General Secretary of the PAIGH outlines ways to contribute to the Sustainable Development Goals Agenda 2030.

## The Editor's Note

In this issue, the interview with Valerie Grant underscores the reasons and progress for a regional SDI in the Caribbean. In the permanent columns are shared, from one side, a reflection on the new adjectives that come to receive the SDIs in the context of training offering, and from the other, the different ways in which the availability of quality geospatial data and of SDI in different geographical levels in the Americas can support the achievement of sustainable development goals in the medium term.

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 Spatial 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: [cnaguire@ipgh.org](mailto:cnaguire@ipgh.org).



Valrie Grant is the founder and Managing Director of GeoTechVision. She is the current president of the Caribbean Urban Regional Information Systems Association (URISA) Chapter, a board member for URISA International, a member of United Nations Global Geospatial Information Management (UN-GGIM) Americas Caribbean Project Technical Committee. She is an accredited facilitator by the World Bank/ Infodev Women Innovators Network in the Caribbean (WINC) Accelerator Program.

## The Caribbean will benefit from having the overall picture that a regional SDI would provide, says Valrie Grant, president of the URISA regional Chapter

The movement towards regional SDI development ensued at a strategic visioning session during the 3rd Caribbean URISA GIS Conference in 2006 in The Bahamas, with subsequent regional meetings under the URISA Caribbean Chapters umbrella.

Valrie Grant shares her vision on this project:

**Given the particularities of the region, what made you think on the need of a Regional SDI for the Caribbean, and what are the key envisioned components of this initiative?**

It has been recognized that in order to facilitate practical and efficient utilization of geospatial technologies and spatial information in a coordinated manner throughout the Caribbean, a number of barriers and issues must be addressed.

Efforts have been made to address some of these barriers including capacity and capability building, access to fundamental datasets and the establishment of a regional geodetic infrastructure.

There are many common issues that face all territories in the region.

Geospatial information/Intelligence is one of the critical elements underpinning decision making in addressing some of these problems including Economic Development, Environment and Resource Management, the problem of Climate Change and Disaster Management, Disease Surveillance and Analysis.

These issues do not respect administrative boundaries or country borders and thus the region will benefit from having the overall picture that a regional SDI would provide.

*"For a successful Caribbean SDI all stakeholders must be involved. This includes the Universities, Governments, URISA Caribbean, UNGGIM Americas, the secretariats of regional bodies of CARICOM, OECS and ACS, the private sector and NGOs."*

*"The main limitations would be financial resources, the Technology infrastructure (in some territories), Capacity building, leadership in the discipline, the political changes in the region that often derails momentum of SDI initiatives."*

## Valrie Grant... continues

This will promote collaboration among the territories as they manage resources and make effective decisions for the people of the Caribbean.

The Components of this initiative are:

- Fundamental datasets- base data of participating territory
- Stakeholders- government, academia, private sector, NGOs, Users
- Technology Application Development- storage, Access, distribution, what are the priority applications?, other
- Institutional Framework- policy, legislation, coordination
- Standards- data models, metadata, other

### **Diverse countries and continents might be involved in this initiative; which partnerships are foreseen for establishing this Caribbean SDI?**

Caribbean States, given their geography, the global economic crisis and increasing need to provide sustainable futures for their people, have recognised the importance of collecting, managing and using geospatial information to make informed decisions to facilitate the management of its resources and support national development.

For a successful Caribbean SDI all stakeholders must be involved.

This includes the Universities, Governments, URISA Caribbean, UNGGIM Americas, the secretariats of

regional bodies of CARICOM, OECS and ACS, the private sector and NGOs.

### **Considering the cultural and geographic diversity of Caribbean countries and territories, which are main limitations/difficulties for starting up this endeavor?**

The main limitations would be financial resources, the Technology infrastructure (in some territories), Capacity building, leadership in the discipline, the political changes in the region that often derails momentum of SDI initiatives.

Most Territories have good command of English Language so language is not a major issue.

As the progress towards a Regional Spatial Data (RSD) continues it is envisaged that some of the major benefits to be derived from is that of cooperation across member states, which will facilitate savings with respect to research and development, sharing of best practices and technology transfer.

This is particularly important given the islands limited resources, as it will provide access to additional capabilities and capacities.

With greater collaboration and integration the objective of NSDIs and a regional SDI can be achieved.

From all indication the major players in the GIS industry in the Caribbean are committed to overcoming existing challenges, to ensure that geospatial technologies and spatial information are recognized as indispensable in solving our most enduring problems, and in building sustainable societies.

## Valrie Grant... *continues*

### **What SDI and related good practices have you thought as models to fostering the Caribbean SDI?**

There are several good practices:

- Creation of an institutional body with supporting policies and framework to facilitate the coordinated creation, management and exchange of regional geospatial information. This will help to foster a shared regional vision and will further assist in facilitating pooling resources for data and service acquisition among other benefits
- Establishment of a regional Geodetic Infrastructure
- Adoption or adaptation of standards (for example the creation of a Caribbean Metadata Profile)
- The establishment of a Network of Regional and National Map Services
- Public Private Partnerships

- Ensuring quality control
- Testing and measuring the benefits of the Regional SDI (RSDI)

### **How do you foresee cooperation with GeoSUR to this initiative?**

Cooperation with GeoSUR could include sharing best practices, assistance with policy development, facilitating training and knowledge exchange and technical support services.

There is the recognition that not all countries are members of the CAF- Latin American Development Bank, in fact only Trinidad and Jamaica are and as such many of the benefits from GeoSUR may not extend to them.

This being the case there is the need for GeoSUR to find a way to include these other territories so that they can participate and benefit from its extensive database that can support economic development and access to capital to support growth and development.

*“Cooperation with GeoSur could include sharing best practices, assistance with policy development, facilitating training and knowledge exchange and technical support services.”*

## Specialized Contribution:

### **CURRENT SDI STATUS AND TRENDS IN THE IBERIAN PENINSULA: A LOOK FROM BEST CONTRIBUTIONS TO JIIDE 2015**

By Antonio F. Rodriguez, Assistant Deputy Director of CNIG (IGN Spain)

The field of geographic information in Europe is currently at a very interesting moment in evolution when it is vital orientating R&D efforts in the optimum direction; and we believe that this is so for several reasons:

- The implementation of the INSPIRE Directive (2007/2 /EC) for the definition of an SDI in Europe is halfway; the recently published *«Mid-term report»* takes stock in the 'Equator' of its implementation period.



6th Iberian SDI Conference, November 4-6, 2015, University of Seville, Spain

## CURRENT SDI STATUS AND TRENDS ... *continues*

- New developments (i.e. IGV, mobile apps, CartoDB and the like, GeoLinked Data, Geowidgets, sensors...) urgently require data production and increasing quality web services that meet real requirements of users.
- The recent economic crisis has been a major obstacle in the evolution and development of SDI in Europe.
- It remains to be seen how far the industry is reviving, and if the activity is significantly growing again.
- Despite support posed by the PSI Directive (Re-use of Public Sector Information), the Open Data Charter and a wide range of initiatives and organizations, open data are not yet implemented in a massive, widespread and unreserved manner.
- It allows taking the pulse of the state of research, development and innovation, at present, when it seems that the Spanish and European economy is improving slowly after a very severe recession, and some sectors progress while others continue relatively stagnant.
- It suggests new lines of development that are likely to be progressing in the future and offering new possibilities.

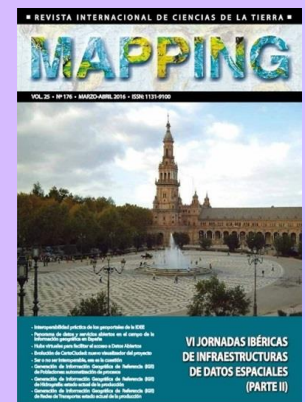
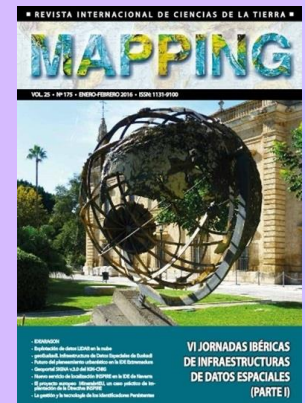
All this, together with opportunities to making contacts, meeting old friends, exchanging opinions, doing analyzes, viewing details and listening to good speakers, I think it makes the JIIDE 2015 a unique and necessary event for SDI specialists.

On this occasion, under the theme "Interoperability and harmonization: sharing knowledge and promoting innovation", the topics chosen for technical sessions included:

- Inspire Directive Implementation and Monitoring
- Data Policies and Licenses. Open data
- Service Implementation
- Interoperability of Spatial Datasets
- Metadata and Catalog Management
- Web and Mobile Apps in SDI

In this complex and changing context, an event like the 6th Iberian SDI Conference (JIIDE), held last November 4-6 at the University of Seville, Spain with participation of experts from the public enterprise, universities and the private sector, is key to the Peninsula for several reasons:

- It is one of few international events that actually serves to information exchange and to bring together the community of all relevant actors in the field of SDI, in the Iberian Peninsula and Balearic and Canary Islands: Spain, Portugal and Andorra.



**“...an event like the 6th Iberian SDI Conference (JIIDE), held last November 4-6 at the University of Seville, Spain with participation of experts from the public enterprise, universities and the private sector, is key to the Peninsula for several reasons...”**



## CURRENT SDI STATUS AND TRENDS ... continues

- Technology Development and Innovation
- The SDI in Smart Cities
- Semantics and linked data
- SDI Projects for the Administration and Private Sectors
- SDI, Neocartography and cooperation
- Training and Dissemination
- Impact and cost / benefit analysis

Numbers of the event have been impressive:

370 people registered, 52 communications, speakers from five nationalities, 10 invited lectures, 3 technical sessions by distinct private companies, 4 workshops, 8 posters and a round table.

We were also lucky and pleased to having the attendance of the Secretary General of the PAIGH, Dr. Rodrigo Barriga, and the GeoSUR Program Coordinator, Dr. Santiago Borrero who gave few keynote presentations.

An impossible-to-recap, rich, varied and attractive Program, with many interesting and novel issues.

There is a [YouTube channel](#) with a total of 12 interviews with key actors, aimed at providing an overview of this event.

While it is virtually impossible to summarize the technological content of a meeting of this kind in this note, we have two numbers ([175](#) and [176](#)) of the MAPPING digital magazine dedicated to a selection of the 16 most relevant

technical papers that were presented and we sincerely believe that all of them will make a tendency to follow in the next year.

These two volumes comprise a very attractive contents including the SDI of Aragon, La Rioja and Extremadura; Novel services and developments with new data sources (LiDAR, Google Naps, Telefonica, OSM ...); The implementation of INSPIRE; Persistent identifiers; Open data and how to discover these; The evolution of SIGNA and CartoCiudad projects; Geographic Reference Information; and much more.

The archive of this magazine may be found in [this link](#) and the individual articles in [this other link](#).

The CNIG will soon publish all the submitted articles and abstracts in one volume.

An opportunity to learn on SDI developments and evolution trends in the Iberian Peninsula. I hope you find them useful.

Cheers and interoperability.

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## What is said from the Coordination of GeoSUR?

By Santiago Borrero

### **On Spatial Information-topics Training-questions it is useful differentiating among content, cost and quality**

In our previous issue I reflected on the relationship between institutional-steering stability, and development of the national SDI. On this opportunity I refer to other topic related to the performance of institutions responsible for spatial data but from the perspective of training and their pertinent supply.

It is noteworthy in the terminology used by the community today that there are those who deliberately do not refer to Spatial Data Infrastructures (SDIs) for renaming these as "Geospatial Information Infrastructures".

"Data" is exchanged for "information" and "geo" is added. The SDI follows a specific concept with a formal and widely known definition.

The concept may and should evolve to reflect profound technological or paradigm changes but in the absence of a new definition I fear that this seems more like a marketing strategy associated with specific training opportunities.

Efforts to "reinvent the wheel" grossly ignoring the path already walked to starting again from zero, in some cases, seem not being properly oriented.

I am of the opinion that the established GGIM initiative within the United Nations was a step in the right direction and I think that taking advantage of the experience of the

GSDI Association in terms of capacity building would have been a better choice.

I cannot find more sense than the commercial on that sufficiently known truths are now told as if they were new:

"It is necessary to identify the role of mapping agencies as part of the national economy"; "Mapping agencies are not only producing maps"; "It is necessary to clarify the multidimensional role of spatial data", "Geospatial data are useful in sectors such as agriculture, transport, infrastructure, health and education," are phrases saying nothing new, and does not seem appropriate that substantial resources be charged to hear the obvious and recognized.

In many cases the cost-benefit ratio in the training offer is clear and corresponds to a content, experience and unquestionable quality, but there are cases that leave much to think about.

It is worth noting that all the capacity building opportunities offered by GeoSUR have corresponded to specific solutions in line with institutional requirements, at no cost, and which content is available in the Library of the Program.

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Santiago Borrero, Coordinator of GeoSUR Program

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## From the PAIGH's Secretary General

By Rodrigo Barriga

### **How may we contribute from each of our prospects with the Sustainable Development Agenda 2030 main objectives?**

Undoubtedly many contributions may be made from the PAIGH and GeoSUR, however, the most important and mainstreaming is to continue contributing to facilitating availability of quality geospatial data in the Americas, which is closely related to processes for accelerating the development of the respective Spatial Data Infrastructure in which PAIGH, SIRGAS, UNGGIM: Americas, and GeoSUR are committed.

If we analyze each of the 17 objectives and respective goals of [UN Agenda 2030](#), we may appreciate that geospatial information is a key element in each of the process-phases to achieving these goals, both from their implementation viewpoint as well as from their monitoring and review procedures.

Quality geospatial information not only provides references of a territory, but also, in combination with statistical data is relevant for sustainable development indicators usage: these may be spatialized to determine territorial priorities in supporting compliance of related objectives and goals. By using geospatial information is therefore possible to analyze fulfillment of these goals in a wide environmental dimension encompassing physical, territorial and social aspects as well as the geographical space perception.

The PAIGH has been committed to these matters for a very long time fostering its annual [Technical Assistance Programs](#) and publications and this year is no exception: thus, initiatives strengthening associativity both between countries and among

diverse specialists and that include various knowledge fields on particular relevant issues including adaptation to climate change, land use planning (territorial ordering), natural hazard management, and heritage topics are privileged.

With the GeoSUR program we are promoting not only the dissemination of data through the respective Geoportal, but also contributing to capacity building in various ways, but especially through participatory mapping workshops for obtaining the Integrated Pan-American Map (the sum of various phases: Integrated Map of Central America, Integrated Map of Northern Andes, and soon, the Integrated Map of South America), where we have joined forces with CAF-Development bank of Latin America, the National Center for Geographic information of Spain (CNIG), the US Geological Survey (USGS), and Geographic Institutes of participating countries.

Another key part is the progress to be achieved in the short term to improving their respective metadata management, which will give us enhanced confidence concerning data discovery and quality as well as their geographic lineage.

We hope to continue contributing and decidedly being part of diverse initiatives, understanding that we can help improving and transforming our world for the benefit of preserving the human species and our planet as well as to inheriting our descendants a better world.

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Rodrigo Barriga, Secretary General of the PAIGH

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## How to discover and visualize data in GeoSUR?

Now you may also be watch sequences for data discovery and visualization on the [GeoSUR YouTube channel](#) videos. This time we include the example of the **Brazilian Institute of Geography and Statistics (IBGE)** geoservices that are accessible through the **GeoSUR Map Viewer**.

By Miguel Blanco, Information Technology Consultant for GeoSUR

This example shows the sequence to access IBGE geoservices through the **GeoSUR portal**.

Please follow these steps (which you may watch again in the GeoSUR YouTube channel):



1. From the main GeoSUR Portal menu "GEOSERVICES" submenu, select "Map Viewers" (Figure 1).
2. In the list of viewers click the "Brazilian Institute of Geography and Statistics" (Figure 2).
3. The IBGE Portal is now visible from which you may use their offered Geoservices (Figure 3).
4. Click the "Publicação" option and then select "SIGIBGE" from the list (Figure 4).
5. Select the "Agricultural Potential" layer (Figure 5).
6. The layer is now visible with their available geoservices; choose "Agricultural Potential (ArcGIS)". To use this layer and overlay it on the GeoSUR Map Viewer, right click on the "Agricultural Potential (ArcGIS)" folder and select "Copy link address or shortcut" (Figure 6).
7. Return to the GeoSUR Portal main menu and select "REGIONAL MAP VIEWER."
8. The GeoSUR Portal map viewer will be visible; in the menu bar select "Add Live Data" by clicking on the  icon.
9. A new window with the list of available services is now opened; to superimpose the layer you must click on the  icon.
10. A window opens asking three facts: "Service URL", "Service Name (Optional)" and "Service Type" (Figure 7 on next page).



Figure 1



Figure 2



Figure 3



Figure 4

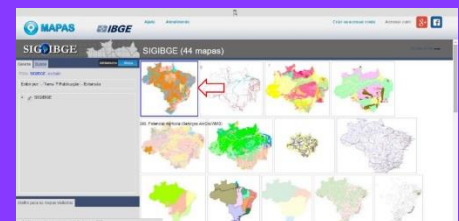


Figure 5

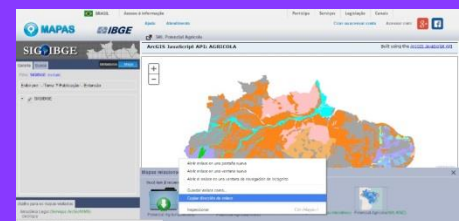





Figure 6



## How to discover and visualize... *continues*

11. In the first frame paste the "address link" that you previously copied (Figure 7).
12. Then type a name and select "ArcGIS\_REST" from the list (Figure 8).
13. Click the "Add Service to Map" button (Figure 9).
14. Minimize this window and soon the layer is visible in the GeoSUR Map Viewer.
15. Then click the "Maps" button and by clicking on the  icon you may see the imported map list of layers and legend (Figure 10).
16. You may click on the  icon which displays a list of options for zooming in the layer; select "Zoom to."
17. You may also change the background image; to make visible the satellite image click on the "Imagery" button (Figure 11).
18. Likewise, you can make more transparent this layer as to perceive the relief of the background map; this may be done by clicking on the  icon and selecting "Transparency". A slide button becomes visible so you may move it say to 50%. The layer is then displayed with that transparency level (Figure 12).

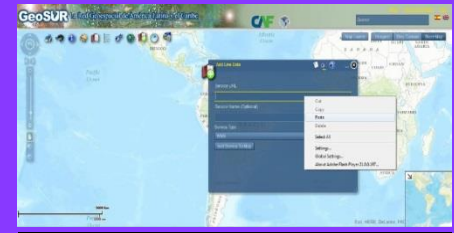


Figure 7

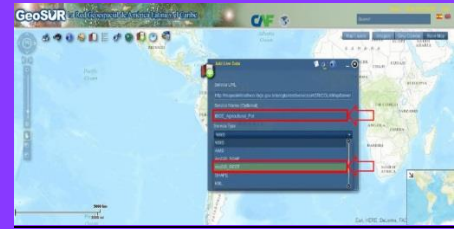


Figure 8

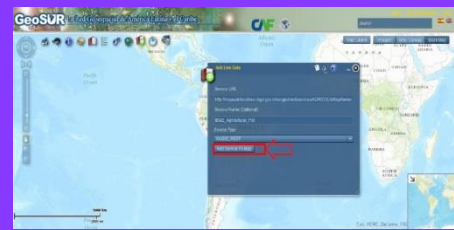


Figure 9



Figure 10



Figure 11



Figure 12

### GeoSUR Program: Basic Figures

Years in Operation	9
Participating Institutions	110
Beneficiary Countries	26
GeoSUR Network Specialists	550
Officials Trained	
(6 Regional Workshops)	314
CAF Officials Trained	130
Virtual Workshops Offered	41
Available Digital Maps	20,000
Available Metadata	14,000
Map Services (WMS)	310
WFS Services	25

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

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Bank of Latin America**

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## Other events in the region

### CAF: CLEAN ENERGY IN LATIN AMERICA - AN INNOVATION ISSUE

According to the report published by the Inter-American Dialogue and CAF, *Innovation in clean energy in Latin America*, governments must triple their annual investments in research and development to achieving established goals. This publication highlights how Latin America has lagged behind in innovation in all sectors, including energy. The indicators show that the region increasingly requested fewer patents, and invested less in technology research and development.

[Source: CAF]

### PAIGH CALLS FOR TECHNICAL ASSISTANCE PROJECTS 2017

The General Secretariat of the PAIGH is pleased to inform that the Call for applications to Pan-American Technical Assistance Projects to be implemented in 2017, which should be linked to the implementation of the "Pan American Agenda 2010-2020", is now opened. The PAIGH Technical Assistance Program aims at implementing specialized actions in the fields of Cartography, Geography, History and Geophysics thus contributing to regional integration and sustainable development.

Projects should be submitted in sufficient time to the respective National Section. Deadline for receiving applications at the General Secretariat of the PAIGH is Monday, **April 25, 2016**. The full announcement may be found here. Contact: [asistencia.tecnica@ipgh.org](mailto:asistencia.tecnica@ipgh.org).

[Source: Rodrigo Barriga, Secretary General of the PAIGH]

### MAP OF DENGUE ENVIRONMENTAL RISK 2016, ARGENTINA

The National Commission on Space Activities (CONAE) years ago is jointly working with the national Ministry of Health as to develop the Map of Dengue Environmental Risk throughout Argentina, whose edition for 2016 is available on the CONAE website. Through the combined development of statistical models and the use of GIS tools and geoservices, these initial data are transformed into an operational map that is very useful as a controlling and monitoring tool in areas affected by the Dengue disease.

[Source: IDERA News]

*"According to the report published by the Inter-American Dialogue and CAF, Innovation in clean energy in Latin America, governments must triple their annual investments in research and development to achieving established goals."*



Map of Dengue Environmental Risk throughout Argentina, 2016