

Working Group On Information  
Systems and Services (WGISS)  
WGISS-43 Meeting

## AmeriGEOSS Regional Initiative

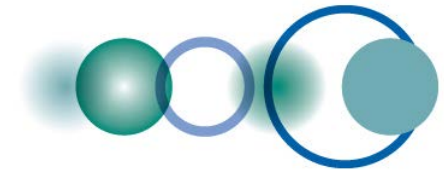
*A framework that seeks to promote collaboration and coordination among the GEO Members of the American Continent*

Angelica Gutierrez, Rich Frazier

*April 5, 2017*



# AmeriGEOSS Initiative & Regional Coordination



Is a cooperative effort of the 16 GEO member countries in the Americas that:

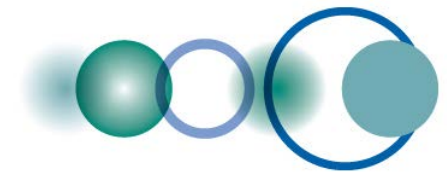
Reflects local, national, and regional interests of the GEO country-members for short and long-term planning, development, and implementation aligned with GEO activities.

Is entrenched in the institutional and technical capabilities of its country members and in the resources of other global initiatives available for the benefit of the region.

Seeks to increase institutional and personal capacity and engage experts, stakeholders, and decision makers in the process of decision making.



*16 Member Countries*



## **Argentina**

**Dr Conrado Franco Varotto**



## **Bahamas**

**Mr Trevor McNeil Basden**



## **Belize**

**Mr Dennis Sylvestre Gonguez**



## **Brazil**

**Mrs Maria Rita Fontes Faria**



## **Canada**

**Mr David Ronald Grimes**



## **Chile**

**Mr Luciano Francisco Parodi**



## **Colombia**

**Mr Omar Franco Torres**



## **Costa Rica**

**Mr Juan Carlos Fallas**



## **Ecuador**

**Ms Maria Fernanda Espinosa**



## **Honduras**

**Mrs Patricia Brocatto**



## **Mexico**

**Mr Rolando Ocampo**



## **Panama**

**Dr Ligia Castro De Doens**



## **Paraguay**

**Mrs Maria Cristina Morales**



## **Peru**

**Mayor General Carlos Elias Rodriguez Pajares**



## **United States**

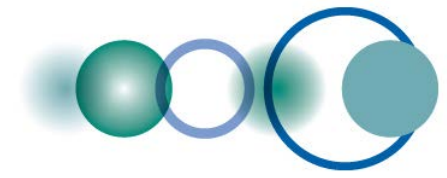
**Dr Steve Volz**



## **Uruguay**

**Vacant**





AmeriGEOSS Initiative is a framework that seeks to promote collaboration and coordination among the GEO Members of the American Continent



## Agriculture

Agriculture, associated with climate variability, climate change, and food security.



## Water

Water, associated with the management approach of water resources and data management.



## Disasters

Disaster risk reduction, particularly for data exchange associated with early warnings and for the generation of regional products of early warnings



## Biodiversity & Ecosystems

Biodiversity and Ecosystem Monitoring including biodiversity observation in coastal, marine, and continental habitats, in the context of capacity building for better monitoring, management, and maintenance of ecosystems and biodiversity they support; also to predict future changes.

**The AmeriGEOSS initiative focuses its efforts in the four Societal Benefit Areas (SBA's) selected and prioritized by the**

***Americas Caucus country-members:***







## Capacity Building

*Building Partnerships*

National

Regional

Global



## Engaging Users

*Needs Assessment and Gap Analysis*

Data

Tools

Products

Services

## Delivering Solutions

*Mobilizing Resources*

Data

- Share
- Curate
- Harmonize

Tools

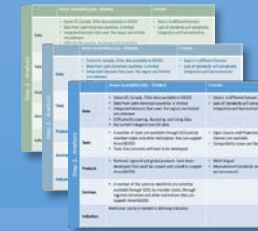
- Visualize
- Mapping
- Modeling

Products

- Publication
- Reports

Services

- Acquisition
- Reports
- Training



Engage

Analyze

Develop

Deliver

User-Driven Framework

Partner > Mobilize > Implement

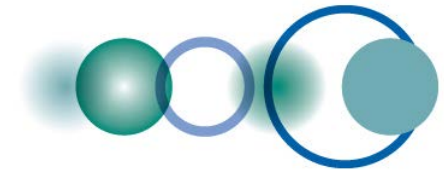


Community Platform



# AmeriGOESS Capacity Building Efforts

## - Outreach and Education Examples



### Increasing and strengthening Partnerships through outreach and education:

#### Workshops



The 2016 AmeriGOESS week event was organized around **capacity building activities** directly related to the priority areas of the AmeriGOESS Initiative. **Training and informative presentations** were provided by public and private participants.

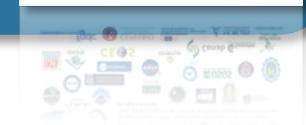
#### Webinars



The purpose of the webinars is to **share information** stressing the importance of open access to information and data for the benefit of the Latin and Caribbean American Region, to **find potential applications and collaborations among scientists and decision makers**, and to expand and strengthen the network of research and applications as it relates to the water cycle.

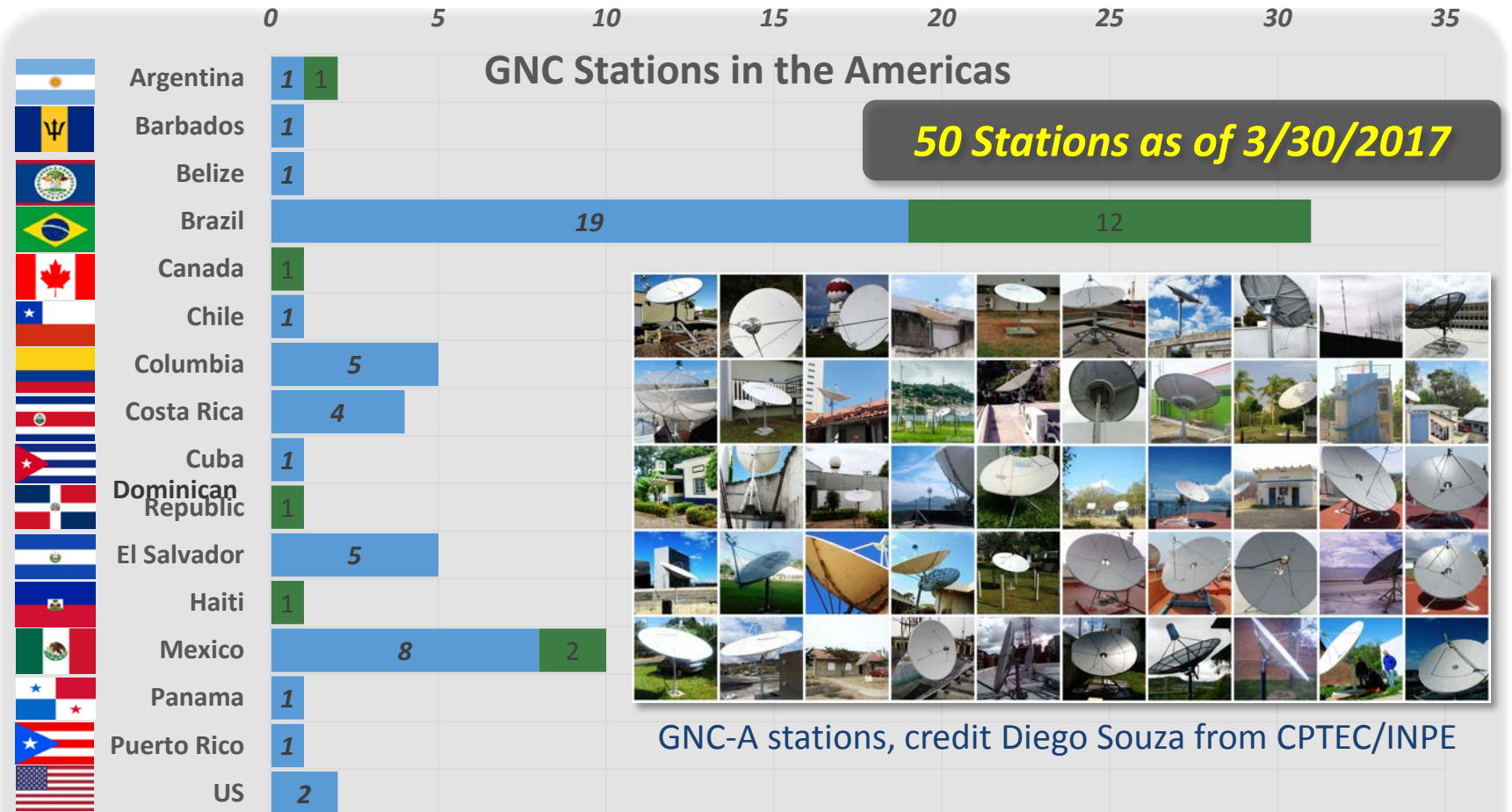
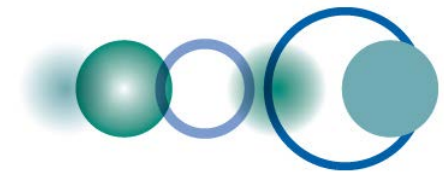
#### Communications

AmeriGOESS principles **meet regularly** to provide **information on** activities, newsletters, and other communications are provided to the community on **events, activities, and accomplishments**.





# Connecting the Community to EO Resources - AmeriGEOSS Capacity Building Example



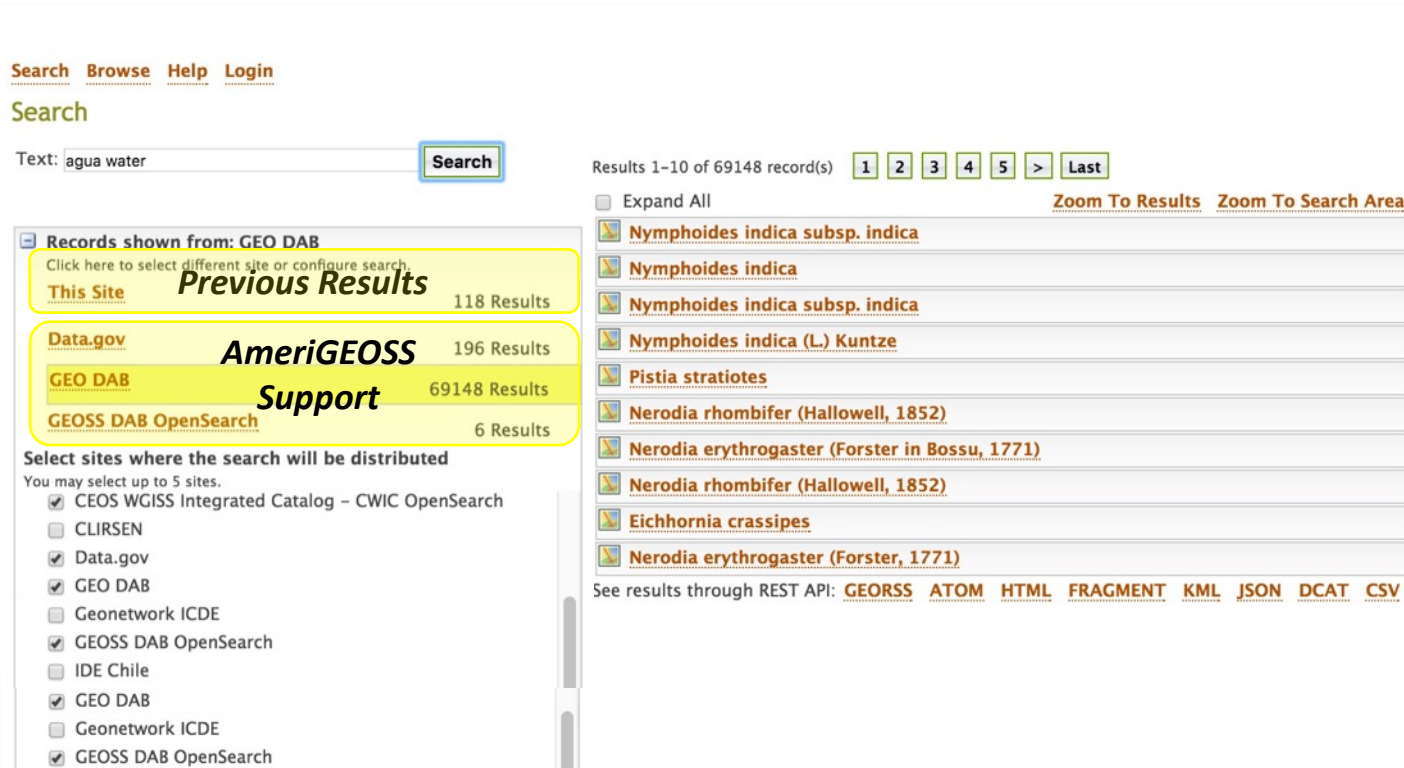
The **near real-time**, global network of **satellite-based data dissemination systems** is designed to distribute **space-based, airborne and in situ data**, metadata, and products to diverse communities lacking in high speed internet access.

# Connecting the Community to EO Resources

## - AmeriGEOSS Capacity Building Example



# GeoSUR



Increasing Discovery and Access to EO

**AmeriGEOSS–GEOSur**

2016 Partnership Success



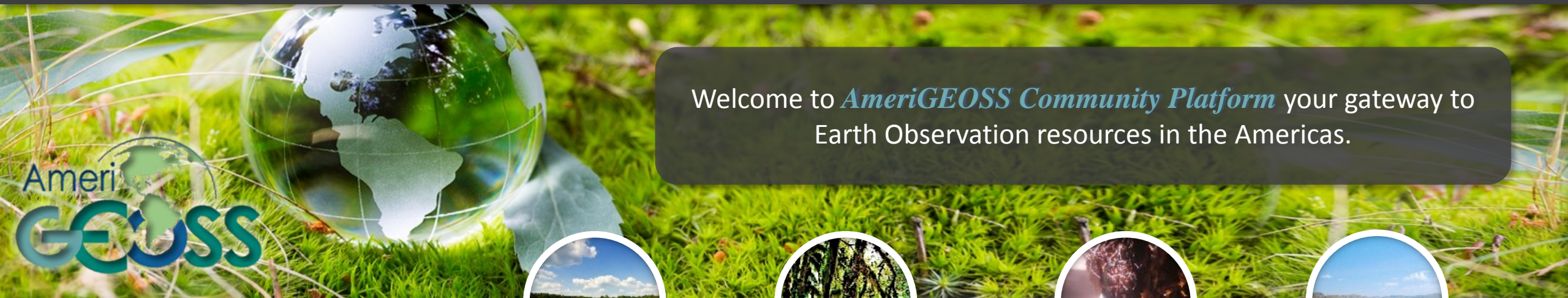
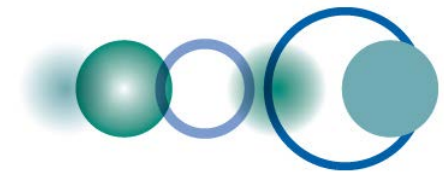


The AmeriGEOSS Community Platform is bringing together Social, Economic and Environmental data to support understanding and decision-making.



- |   |   |
|---|---|
|  Biodiversity and Ecosystem Sustainability  |  Disaster Resilience                      |
|  Energy and Mineral Resource Management    |  Infrastructure and Transport Management |
|  Public Health Surveillance                |  Sustainable Urban Development           |
|  Food Security and Sustainable Agriculture |  Water Resource Management               |





Welcome to *AmeriGEOSS Community Platform* your gateway to Earth Observation resources in the Americas.



Agriculture



Biodiversity & Ecosystems



Disasters



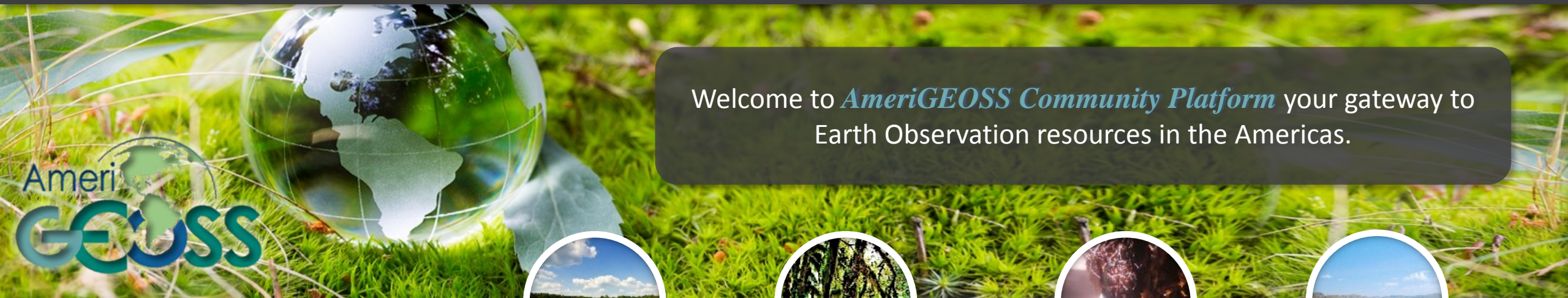
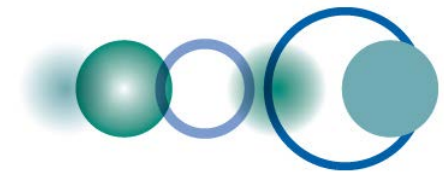
Water

The AmeriGEOSS Platform is a regional community resource to *promote collaboration and coordination* among the GEO members in the American continent.

*Your resource to share, find, discover, learn and participate in coordinated, comprehensive and sustained Earth observations for understanding and decision-making.*







Welcome to *AmeriGEOSS Community Platform* your gateway to Earth Observation resources in the Americas.



Agriculture



Biodiversity & Ecosystems



Disasters



Water

## Data

- **Catalog** of Americas EO data assets,
- **Share, Publish, Manage and Use** data
- **Co-create**, Curate, Harmonize, Semantically enrich and tagging

## Tools

- **Data Visualization and Modeling tools**
- **Map Viewer and Thematic Gallery**
- Access a variety of **community developed tools**
- **Other Tools** from providers or custom tools can be added

## Products

- Publications (e.g. Agricultural, Climate Report)
- Reports (e.g. Water Quality)
- Brochures (Preparing for a disaster)
- Others

## Services

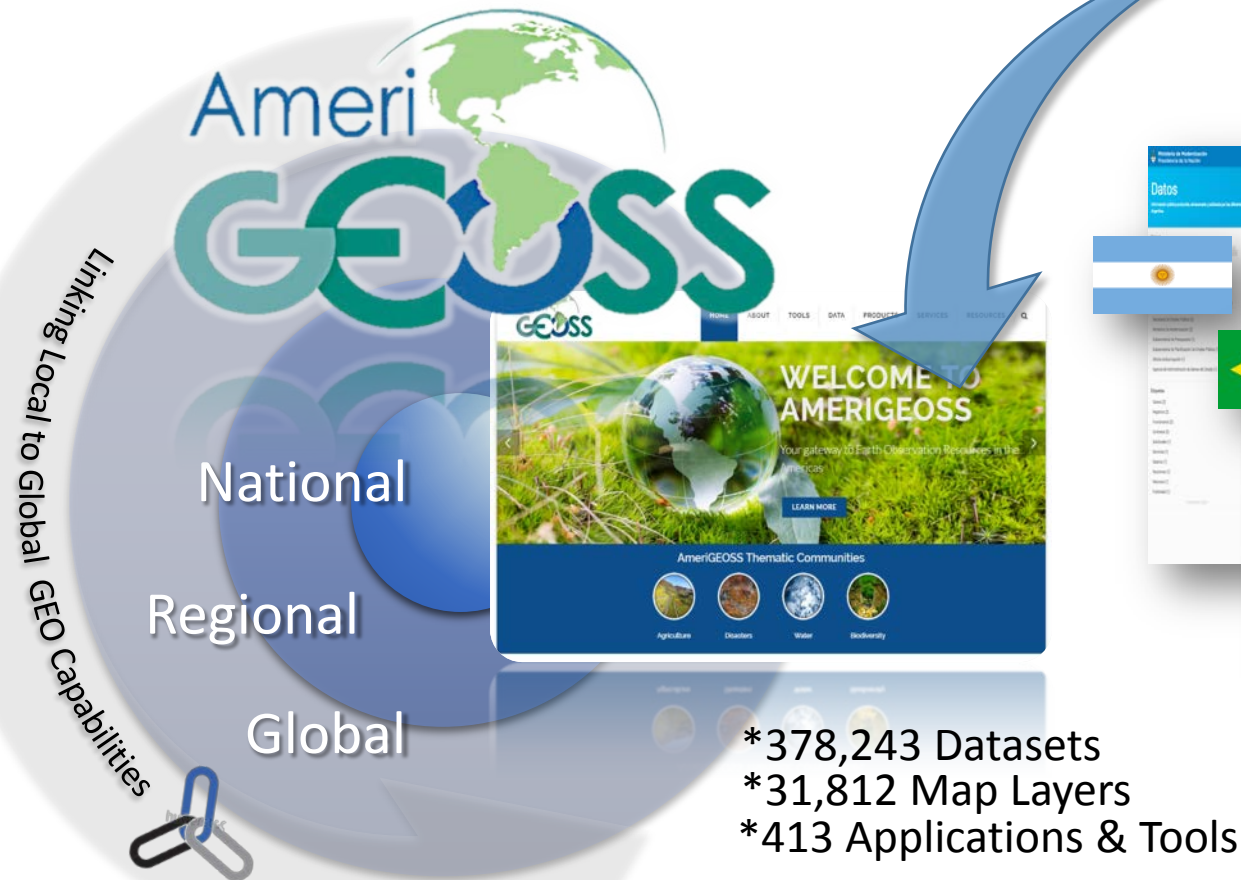
- GeoNetCast Americas
- Geohazard Supersites and Natural Laboratories
- Training
- Workshops
- Alerts & Notifications
- Other

## Resources

- News
- Social Media Resources
- Community Calendar
- Collaboration Tools
- National and Regional Portals and Platforms
- Document Library



# AmeriGEOSS Linking Capabilities



Open Data Portals

Global

National

Regional

Share Data, Tools, Applications and Services

\*Current assessment of available resources







About AmeriGEOSS | Initiatives | Data | Tools | Products | Services | Resources |

**Data Catalog**

**Spatial Search**

**Collections**

**Datasets**

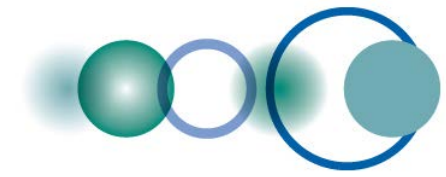
**Tools and Products**

**Map Viewer**



The AmeriGEOSS Community Platform prototype provides a suite of *resources and tools* for integrating, synthesizing, analyzing, problem-solving and visualizing geographically enriched data to *accelerate understanding* and *decision-making*.





The image displays two side-by-side screenshots of the AmeriGEOSS Data-Hub website, illustrating its search and data capabilities. The left screenshot shows the 'Datasets' page with a search bar and a list of datasets. The right screenshot shows the same page with a map overlay and a search bar.

**Search**  
– Text<sup>1</sup>, Faceted<sup>2</sup> and Spatial Search<sup>3</sup>

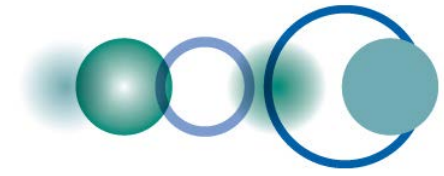
**Find**  
– Resources in many Formats<sup>4</sup>

**Use**  
– Multi-platform support<sup>5</sup>

Numbered callouts (1-5) highlight specific features:

- 1**: Search datasets... (Text search)
- 2**: Organizations (Faceted search)
- 3**: Filter by location (Spatial search)
- 4**: CSV, JSON, wsd, HTML (Resources in many Formats)
- 5**: Multi-platform support (Mobile devices)





## Tools and Resources from Global Providers in one Place

2 ZERO  
HUNGER



Find Data

165 datasets found for "agricultura"

Tools

Dashboard

Imagery







**6** CLEAN WATER  
AND SANITATION



About AmeriGEOSS | Initiatives | Data | Tools | Products | Services | Resources |



Explore Social, Economic and Environmental,  
Reports, Information, Indicators.....and More

**AmeriGEOSS** DATA SETS ORGANIZATIONS GROUPS ABOUT

Search

Log in Register

Home / Datasets

Filter by location

**Find Water Data**

428 datasets found for "agua"

Order by: Relevance

**Características Calidad del Agua - SIVICAP**  
El siguiente reporte de las características físicas, químicas y microbiológicas de calidad de agua 2015

**Hacer uso responsable del agua**  
Hacer uso responsable del agua

**Indicadores Básicos del Desempeño Ambiental - Agua - Caucau**  
Datos sobre calidad del agua a nivel nacional

**Indicadores Básicos del Desempeño Ambiental - Agua - Caucau**

Organizations: Mexico (144), Brazil (121), GeoSUR (65), Colombia (54), Chile (30), U.N. HDX (12), Uruguay (2)

- Air Temperature (1200)
- Salinity (1200)
- Water Temperature (1200)
- Winds (1200)
- Water Level (1138)
- Barometric Pressure (1132)
- Conductivity (1132)
- Currents (1132)
- Datum (1132)
- Harmonic Constituents (1132)
- Rain Fall (1132)
- Relative Humidity (1132)
- Visibility (1132)
- Water Level Predict... (1132)
- sea\_water\_speed (790)
- direction of sea wa... (789)
- platform\_orientation (775)
- platform\_pitch\_angle (775)

**Water Variables**

**Shallow Water Mooring Buoys - Guam**  
Shallow water mooring (SWM) buoys around Guam, Mariana Islands

**(CMOP) Waste water outfall (City of Astoria)**  
IOOS Sensor Observation Service (SOS) Server for NANOOS, the National Ocean Observing Systems (http://nanooos.org). Provides access to marine environmental data.

**Aggregated Lake St. Clair Water Levels**  
Aggregated Lake St. Clair Water Levels

**Aggregated Lake Michigan and Huron Water Levels**  
Aggregated Lake Michigan and Huron Water Levels

**Clam Bayou - sea\_water\_electrical\_conductivity**  
Clam Bayou - sea\_water\_electrical\_conductivity

Organizations: Mexico (144), Brazil (121), GeoSUR (65), Colombia (54), Chile (30), UN HDX (12), Uruguay (2)

Groups: AmeriGEOSS (297), National Provider (297), GEOSS (297)

**Water Reports  
& Indicators**

Use maps, applications and other analytical tools



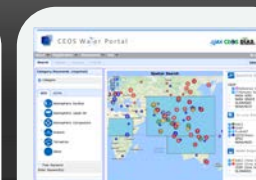
WRI Aqueduct Country and R...



Agricultural Exposure to Wate...



Brazil: Extreme Events (1980...



CEOS Water Portal

The following report on the physical, chemical and microbiological quality of water in the city of Sivicap 2015

**Make responsible use of water**  
Make responsible use of water

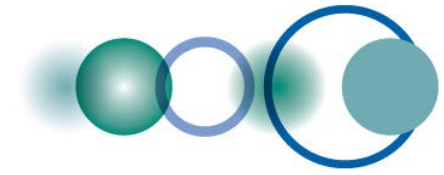
**Basic Indicators of Environmental Performance - Water - Availability**  
Water availability at national level

**Water quality of use and human consumption.**  
Table with total of points sampled, % chlorination efficiency, % surveillance coverage, % population with surveillance coverage, % samples suitable for consumption, % in and ...

**Rates for Water and Wastewater Services - EPM**  
The tariff fixing process for each of the services is as follows: The Commission for the Regulation of Drinking Water and Basic Sanitation -CRA- establishes the formulas ...

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Initiated

February - September



**Building Partnerships**



**Data needs, gap analysis/solution development, linking data**

**Enabling Analytical tools for data visualization**



**Establishing Group Curators**

**Working with thematic working groups on use cases**

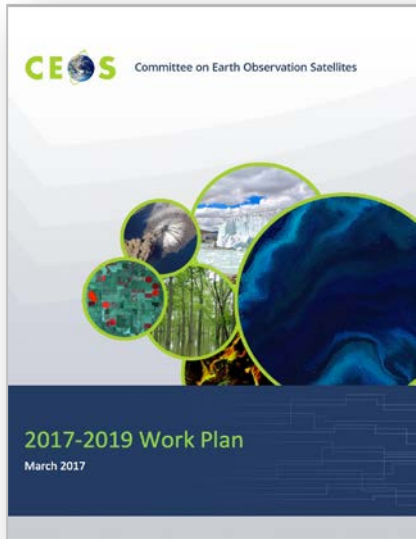
**Present early results at the Work Programme Symposium and Plenary**

**AmeriGEOSS Week 2017**  
**University of Costa Rica**  
**July 31 – August 4**



*Strengthening Partnerships – Mobilizing Resources – Implementation*





## AmeriGEOSS Cross-walk to CEOS 2017-2019 Work Plan

3.1. Climate Monitoring, Research, and Services

3.2. Carbon Observations, Including Forested Regions

3.3. Observations for Agriculture

3.4. Observations for Disasters


3.5. Observations for Water

3.6. Capacity Building, Data Access, Availability and Quality

3.7. Advancement of the CEOS Virtual Constellations

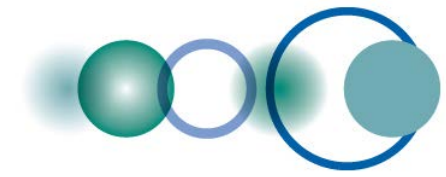
3.8. Support to Other Key Stakeholder Initiatives

3.9. Outreach to Key Stakeholders

	 Agriculture	 Biodiversity & Ecosystems	 Disasters	 Water	 Foundational Task
3.1. Climate Monitoring, Research, and Services					
3.2. Carbon Observations, Including Forested Regions					
3.3. Observations for Agriculture					
3.4. Observations for Disasters					
3.5. Observations for Water					
3.6. Capacity Building, Data Access, Availability and Quality					
3.7. Advancement of the CEOS Virtual Constellations					
3.8. Support to Other Key Stakeholder Initiatives					
3.9. Outreach to Key Stakeholders					







## Outreach & Education

- Coordinate Communication
- Coordinate Training
  - *Hands-on*
  - *Videos*
  - *Computer Base*
- Workshops

## Data & Products

- Coordinated User Needs Assessments
- Coordinated Gap Analysis
- Thematic datasets
- Harmonized Thematic Regional Products

## Applications & Tools

- Thematic Tools and resources (*e.g. Water Portal*)

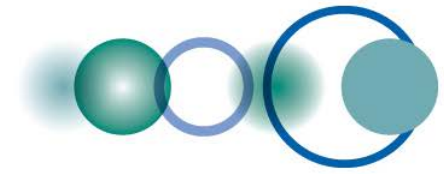


## Use Cases

- Support efforts to Identify opportunities
- Participation in development
- Thematic pilots, prototypes

Outcome of activities will inform development and implementation in other regions.





## Advancing the Vision of GEO: *GEOSS Implementation*



# Questions?

