

# Welcome Address

## IX Group on Earth Observations Plenary

### Ministério da Ciência, Tecnologia e Inovação

Leonel Fernando Perondi

Foz do Iguaçu, November 22, 2012

Distinguished Delegates, ladies and gentlemen,

Good morning.

The Ministry of External Relations, the Ministry of the Environment and the Ministry of Science, Technology and Innovation, through the National Institute for Space Research - INPE, welcome all attendees to the ninth GEO Plenary.

I would like to express my compliments and my recognition to the GEO's Co-Chairs:

Mr. Cao Jianlin, Vice Minister, the Ministry of Science and Technology of the People's Republic of China

Ms. Kathryn Sullivan, Assistant Secretary of Commerce for Environmental Observation and Prediction and Deputy Administrator for the National Oceanic and Atmospheric Administration (NOAA), United States of America

Ms. Manuela Soares, Director, Directorate-General for Research and Innovation, European Commission

and

Mr. Philemon Mjwara, Director-General, Department of Science and Technology, Republic of South Africa

I would also like to compliment Ms. Barbara Ryan, and wish her a successful tenure ahead of the GEO Secretariat.

On behalf of Dr. Marco Antonio Raupp, the Brazilian Minister for Science, Technology and Innovation, who unfortunately has not been able to be with us today, I would like to warmly welcome all of you to Brazil.

Let me first say that I am very much honoured by the presence of 68 delegations. This expressive attendance gives us the certainty of the success of the discussions and decisions of the next two days.

Particularly, specially from the standpoint of INPE (a research space institution), I am very much honoured by the presence of several distinguished professionals from the areas of space technology and applications. I

particularly praise the presence of Ms. Kathryn Sullivan, who holds the distinction of being the first American woman to go on a space walk and of taking part on the mission that deployed the Hubble Space Telescope. I also acknowledge the presence of Dr. Sandile Malinga, president of the South African Space Agency. Through them, I would like to compliment all professionals present here that work in the space area.

I would also like to salute the presence of so many Brazilian Institutions, such as Brazilian Space Agency (AEB), Ministry of the Environment, Brazilian Institute of Environment and Renewable Natural Resources (IBAMA), Brazilian Agricultural Research Corporation (EMBRAPA), Brazilian National Water Agency (INMET), Brazilian Forest Service , Chico Mendes Institute, Federal University of Alagoas, National Supply Corporation, organizations which have been specially invited to attend this plenary as observers, with a view to establishing the Brasil GEO .

Brazil has been an active member of GEO, since the First Earth Observation Summit, in Washington in 2003, and has been a member of the Executive Committee in different occasions. Moreover, Brazil co-chaired the former committees on Capacity Building and on Architecture and Data.

In September 2007, in coordination with other Members of the Americas Caucus, Brazil hosted the “GEOSS in the Americas Symposium” with the objectives of increasing understanding of GEOSS in the region and advancing a dialogue about opportunities, capabilities, and requirements.

Last year, Brazil became a member of the Architecture and Institutions and Development Implementation Boards, and enrolled in the GEO Post-2015 Working Group.

This is the first GEO Plenary meeting being held in Brazil. I am very much pleased of hosting this plenary in Brazil, as part of the events associated to the Rio+20 Conference.

The United Nations’ Conference on Sustainable Development, Rio+20, was held on the 22<sup>nd</sup> and 23<sup>rd</sup> of June of 2012, in the city of Rio de Janeiro, Brazil.

The Conference has been considered as a milestone in the multilateral effort towards a worldwide program for sustainable development.

Let me remark that Brazil’s participation in GEO was made possible because of the engagement of the Brazilian Foreign Relations Ministry (“Itamaraty”).

The Brazilian Government has been implementing important projects in complete alignment with the Rio+20 Resolution, “The future we want”. Several of these projects very much benefit from international cooperation.

Natural disasters, besides the devastating effects caused by the loss of lives, may have profound economical impacts, contributing substantially to the deepening of poverty in frequently struck regions.

As part of the national plan for risk management and responses to natural disasters, released last August by President Dilma Rousseff, the Ministry of Science, Technology and Innovation established a new institute – the National Center for Natural Disaster Monitoring and Alerting (CEMADEN) – with the mission to conduct research on natural disasters, such as landslides, flash floods, flooding, among others, and to provide the Civil Defense with advanced alerts which will guide effective actions to save lives.

Preventing and controlling the deforestation in the Amazon Region have long been important targets for the Brazilian Government. Under the leadership of the Ministry of the Environment, national programs and other initiatives have been implemented aimed at fulfilling these objectives.

Since 1988, through a pioneering system developed by INPE – referred to as PRODES, annual changes in the forest canopy have been computed and taken as a measure of the yearly deforestation rate. The annual deforestation estimates and related data produced by the PRODES system constitute an important instrument for the definition of long term policies for the Amazon region.

More recently, from 2004 onwards, an almost real time system, named DETER, produces daily alerts which support field action against illegal logging in the Amazon region.

The effectiveness of the field action led the Ministry of the Environment to announce, recently, a significant drop in the yearly deforestation rates – from 27,000 km<sup>2</sup> in 2004 to 6,500 km<sup>2</sup> in 2011.

I am very much confident that GEO and GEOSS may give substantial contributions to such initiatives as the ones just mentioned above.

Very briefly, I would like to illustrate the commitment of Brazil to the future of GEO and GEOSS by highlighting some of our initiatives. I will also point out some of the initiatives that have been carried out by INPE - Brazilian National Institute for Space Research.

First of all, however, let me very briefly introduce INPE.

Established in 1961, INPE's mission may be briefly summarised in the statement: "to be the national reference in Space Science, Space Technology and their applications, while providing direct returns to society in terms of products and services, industrial policy and diffusion of knowledge".

The Institute develops activities in five main areas: Space Science (Astrophysics, Aeronomy and Geophysics), Meteorology, Earth Observation, Climate Change and Space Technology.

With 1000 staff, among researchers, technologists and technicians, the Institute attempts to implement a complete innovation cycle, developing activities which go from basic and applied research projects, through product and service development, up to making available to society services and products that impact social and economic life.

INPE's Center for Weather Forecast (CPTEC) is recognized by WMO as center of excellence in Education and is part of WMO's Virtual Laboratory. Our Amazonia Tropical Forest Monitoring Center has a partnership with FAO and the UN-REDD program to provide training and capacity building for tropical forest nations.

INPE has been at the forefront of GEO in Brazil and will continue to be fully engaged in its initiatives. INPE is spending considerable resource in developing open source tools for extracting information from Earth Observation data. All of these tools are made available to the GEO partners, through our work on the Capacity Building group. Our institute provides a number of training programs in GEO-related areas.

Back to Brazil's commitment to GEO and GEOSS, Brazil fully supports the data democracy initiative, which includes, besides data sharing, the training and capacity development opportunities that enable end users to make full use of the data generated by observation systems.

By empowering users, we can make sure that the information that is generated is translated into concrete benefits to society, one of the major objectives of GEO. To this aim, Brazil has been developing open source software to process satellite data images. Our software is widely used in Latin America and we aim at expanding its use to other developing countries. Brazil will continue to host seminars to build the capacity of individuals and institutions to help them reap the full benefits of our open and free data policy.

With respect to CBERS for Africa Initiative, launched by Brazil and China, in 2007, during Cape Town Ministerial Meeting, the upcoming CBERS-3 satellite will grant direct image reception of all its cameras to three ground stations: Maspalomas, in the Canary Islands, managed by Spain; Hartebeeshoek, managed by South Africa; and the one managed by Gabon (still under construction). Egypt and Italy have already been approached by Brazil and China in order to join this very important initiative and to ensure CBERS-3 data reception to the ground stations in Aswan and Malindi, completing the full coverage of the African continent.

Brazil is fully committed to the success of the AfriGEOSS project. In addition to the CBERS for Africa Initiative and the coordination of data acquisition strategy for Africa, Brazil cooperates with the establishment of education and training programmes, making freely available, for instance, the technologies of the PRODES and DETER systems to African countries.

We fully believe that the AfriGEOSS initiative can benefit from our own experience in promoting food safety, forest monitoring, protecting biodiversity, fighting poverty, managing natural disasters and promoting sustainable development.

Looking at the future, I see the essential role that GEO and GEOSS can play in providing Earth observation data for the benefit of society. The Rio+20 Conference final document , may inspire the work of the current GEO Plenary.

Paragraph 274 explicitly acknowledged the importance of “... *space-technology-based data, in-situ monitoring and reliable geospatial information for sustainable development policymaking, programming and project operations.* ...”.

The Rio+20 document also recognizes the efforts in developing global environmental observing systems, when GEOSS is mentioned, and the need to support developing countries in their efforts to collect environmental data.

Distinguished Delegates,

To conclude, I would like to reiterate Brazil’s responsibility to promoting improved governance in GEO as a way to expand the benefits of Earth observations to global users. I would also like to reaffirm Brazil’s full commitment to GEO and to the implementation of GEOSS. The need for timely, integrated and actionable data and information will require considerable efforts from all of us in order to enable effective exploitation of the growing potential of Earth observations to support decision-making around the globe.

We live in a world of finite resources and ever-growing needs and we do have great responsibilities with regards to the generations to come. Let us face our work, debate all documents, strengthen our commitment and take in this meeting the very important decisions that will allow GEO to move forward. I truly believe that the work of the IX Plenary Session will be inspired by the spirit of Rio+20 meeting and the natural beauty of Iguazu Falls. Then, it will enable us to deliver substantial progress in our cooperation, in our common goal, to ensure the future of GEO and GEOSS post-2015.

I would like to acknowledge the substantial support provided by the World Bank, through its Program for Protection of Tropical Forests, and by the Ministry of the Environment, which made substantial financial commitments to the GEO-IX Plenary.

Once again, be all of you warmly welcome to Brazil.