

## Sharing and Stewardship of Scientific Data for Improved Decision Making and Sustainable Development: Why share data fully and openly?

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*Thursday 14<sup>th</sup> June: 12:30-14:00*

The Earth's atmosphere, oceans and landscapes are changing rapidly, with human activities being a major driver. Monitoring and modelling these changes are critical to enable governments, civil society and the private sector to take informed decisions about climate, energy, food security, natural hazards, health, and other challenges. **Decision makers and managers must have access to the information they need, when they need it, and in a format they can use.**

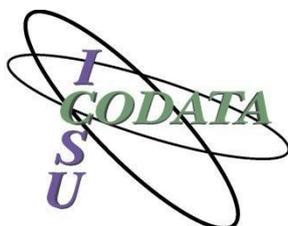
But assessing and predicting future changes are a challenging task. It requires an advanced understanding of human and Earth systems and their interactions. It also requires access to long-term time series and continuous monitoring of the key parameters of the environment and human society. **Observing, modelling and understanding these changes are critical to improved decision making<sup>1</sup>.**

Today, our planet is being monitored by land, sea, air and space-based Earth observation systems. Human activities are also monitored through a variety of administrative and statistical systems. But current systems for collecting, storing, analysing and sharing these observations remain fragmented, incomplete or redundant and difficult to integrate across disciplines. Major observational (and therefore knowledge) gaps remain. **Decision makers around the world need a global, coordinated, comprehensive and sustained environmental and societal information system that supports action to be taken whenever necessary.**

The side event will highlight some real life case studies of improved access to data and information and how removal of restrictions on access and sharing of data provides significant economic and social returns.

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<sup>1</sup> GEOSS Data Sharing Action Plan as Accepted at GEO-VII, Beijing 2010



**FORUM ON  
SCIENCE, TECHNOLOGY & INNOVATION  
FOR SUSTAINABLE DEVELOPMENT**

11 to 15 JUNE 2012  
RIO DE JANEIRO, BRAZIL



## Chair:

Dora Anne-Canhos ([CRIA](#), [CODATA](#))

## Speakers: (20' presentations)

1. Susana Adamo ([CIESIN](#), [Columbia University](#)):

- [\*Developing Global Socioeconomic Datasets for Integration with Environmental Data\*](#)

2. Christovam Barcellos ([Fio Cruz](#), [Rede CLIMA](#)) & Antonio Miguel Monteiro ([INPE](#)-  
National Institute for Space Research, Brazilian Ministry of S&T):

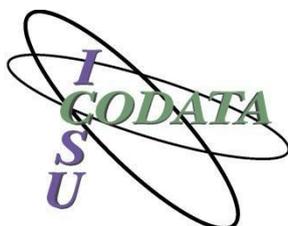
- [\*Climate Change and Health Data Challenges\*](#)

3. Carlos Frederico Angelis ([CEMADEN](#)):

- *Data for natural disasters monitoring*

4. Peter Hoeppe (Head Geo Risks Research/Corporate Climate Centre Munich Re):

- [\*High quality data of impacts of natural disasters are the basis for effective risk management\*](#)





## Biographical Summaries of Session Participants

### Chair:



**[Dora Ann Lange Canhos](http://www.cria.org.br)**, Associate Director, Reference Center on Environmental Information (CRIA) (<http://www.cria.org.br>), has been working with databases and on-line information systems since 1985. She is a member of the developing team of the speciesLink network ([smlink.cria.org.br](http://smlink.cria.org.br)), of the information system of collections of biotechnological interest ([sicol.cria.org.br](http://sicol.cria.org.br)) and is part of the coordinating team of the National Institute of Science and Technology Virtual Herbarium of Plants and Fungi ([inct.florabrasil.net](http://inct.florabrasil.net)). She also represents CRIA at the Clearing-House Mechanism Informal Advisory Committee of the Convention on Biological Diversity ([www.biodiv.org/](http://www.biodiv.org/)), and as a member of the steering committee of GEO BON (Group on Earth Observations – Biodiversity Observation Network - [www.earthobservations.org/geobon.shtml](http://www.earthobservations.org/geobon.shtml)). During the period of 2003-2008 she was a member of the CODATA Task Group on Preservation and Archiving of Scientific and Technical Data in Developing Countries. She is currently a member of the CODATA Executive Board. <http://www.codata.org>

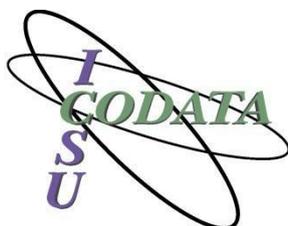
### Speakers:



**[Susana B. Adamo](#)** is Associate Research Scientist at the Center for International Earth Sciences Information Network (Earth Institute, Columbia University), adjunct assistant professor at the School of International and Public Affairs and Columbia College, and co-coordinator of the Population and Environment Research Network (PERN). She holds a B.S. in geography from the University of Buenos Aires, an M.S. in population studies from FLACSO-Mexico, and a Ph.D. in demography/sociology from the University of Texas at Austin. Her research interests include environmental migration and displacement, the dynamics of internal migration in developing countries, rural/urban demography, migration and health, and issues related to global and regional georeferenced population databases. Among other projects, she has worked on circular migration in Thailand; migration and socioeconomic change in rural and small town Argentina; migration and meningitis in Sahel countries; land use and population change in Latin American and the Caribbean; migration, urbanization and health in China; and the development of gridded population databases.



**[Carlos Frederico Angelis](#)** holds a PhD in Geography and Environmental Sciences from the University of Birmingham, UK, a Master in Remote Sensing from the National Institute for Space Research (INPE), Brazil and a BSc. in Geography. As a researcher at the Brazilian Centre for Monitoring and Warnings of Natural Disasters (CEMADEN), he develops research and studies focusing on rainfall estimation using remote sensing of the atmosphere (weather radars and satellites). He is also involved in research applied to early warning systems for natural disasters. He is lecturer of Remote Sensing of the Atmosphere using active and passive



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microwave at the Brazilian Institute for Space Research (INPE) Postgraduate program and at the moment he is the current General Coordinator for Operations and Modelling at CEMADEN.



**Christovam Barcellos** is geographer, master in Public Health and doctor in Geosciences by Fluminense Federal University (Rio de Janeiro, Brazil). He is researcher at the Department of Health Information Research, Oswaldo Cruz Foundation (Fiocruz), Brazilian Ministry of Health, Rio de Janeiro, since 1996. Acted as invited researcher at Centre for Scientific Innovation (CISE, Milan, Italy). Christovam is professor of Health Geography at Brazilian National School of Public Health, advising and developing research on environmental and social determinants of infectious diseases.

Parallel to the academic career he has been working at Rio de Janeiro State Health as a public health technician (1985-1996) and advisor of the Secretary of Health Surveillance, Brazilian Ministry of Health (2001-2003). Currently Christovam is deputy director of research at the Health Communication and Information Institute (Fiocruz), coordinating initiatives for health information production and dissemination.



**Peter Hoeppe** joined Munich Re in 2004. Currently he is heading the Munich Re division “Geo Risks Research/Corporate Climate Centre”. Before joining Munich Re Prof. Hoeppe has worked in different university institutes at the Ludwig-Maximilians-University in Munich and as a post doc at Yale University (USA). His academic education is in meteorology (Masters and PhD) and human biology (PhD). His main areas of research have been effects of atmospheric processes (heat/cold, UV radiation, air pressure fluctuations) and air pollutants (ozone, particles) on humans and the general assessment of environmental risks. Currently his research focus is on trends of natural

catastrophes and their drivers and on climate change effects on insurance industry in general. Prof. Hoeppe is scientific member of many scientific societies and has held expert functions in different UN-Organisations. He is founder and Chairman of the Munich Climate Insurance Initiative and one of the initiators of the Desertec Industrial Initiative. He has been appointed as Climate Change Advisor of the Bavarian State Government and Chair of the “Finance-Forum: Climate Change” of the German Federal Government. Since 2005 he has been a Board member of the Global Climate Forum (GCF, former ECF).

