

Microsoft® Research

Faculty Summit 2010

Guarujá, Brasil | May 12 – 14 | In collaboration with FAPESP

The ICSU Regional Office for Latin America and the Caribbean: developing regional scientific programs in priority areas for Latin America and the Caribbean

Alice Abreu
Director of ICSU-LAC

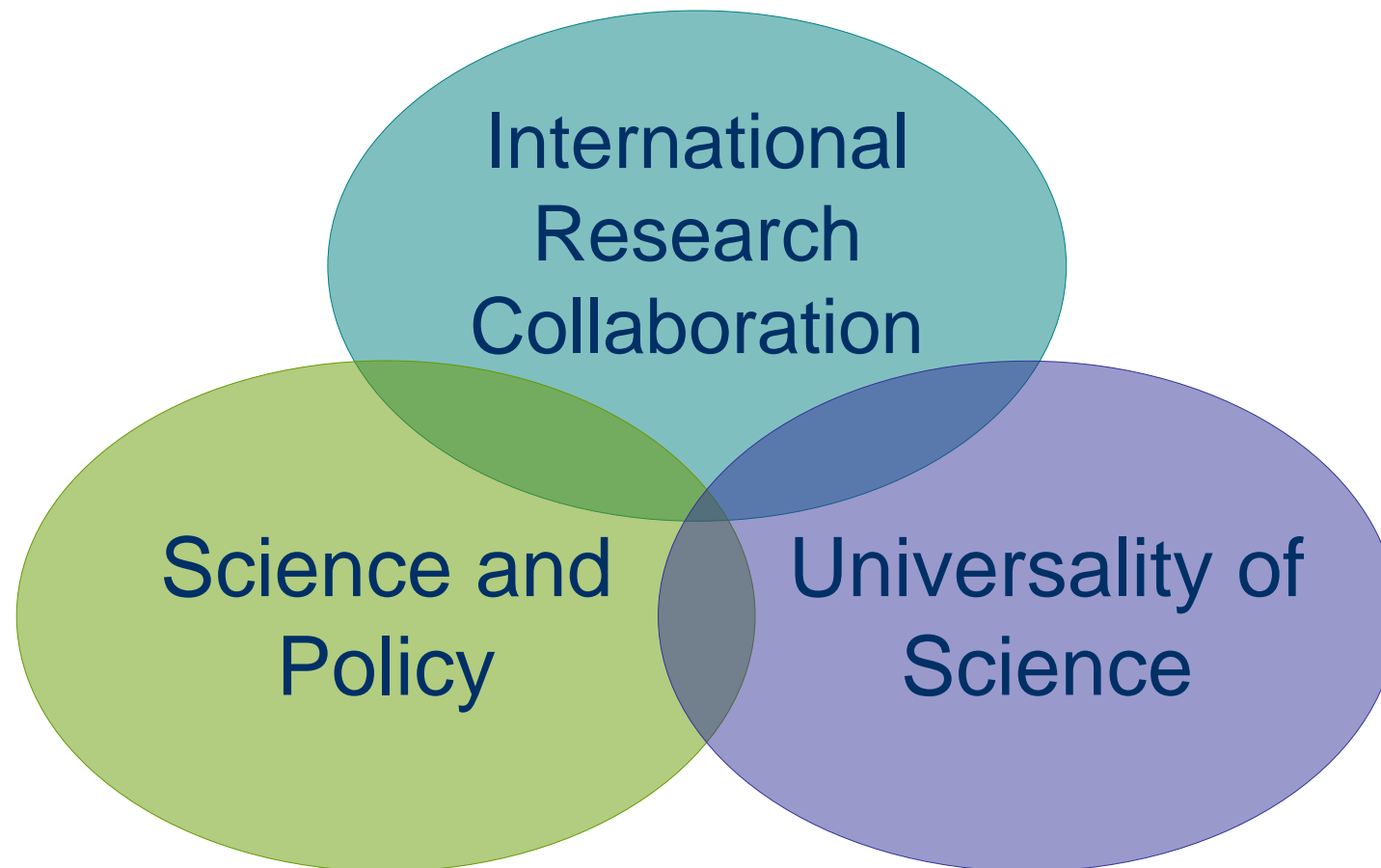
Keynote Panel Session “Science, Technology and Innovation Collaboration in Latin America and the Caribbean: Specific Actions”

Latin American Faculty Summit 2010 -- Guarujá, Brazil – May 12 to 14, 2010

ICSU: who and what?

- Founded in 1931, but roots back to 1899
- A membership organization with:
122 National Members, and
30 International Scientific Unions
- Establishes Interdisciplinary Bodies (18) in key areas
- Limited finances but unique worldwide access to intellectual resources

Active in three inter-related themes



International Research Collaboration : Common features



- **Complex scientific challenges**
- **New knowledge and new approaches necessary**
- **Trans-disciplinary: natural and social sciences need to work together**
- **Many stakeholders outside of science involved**
- **Politically (and commercially) sensitive**
- **Raise issues of equity and openness**
- **Critical links between local and global challenges and solutions**

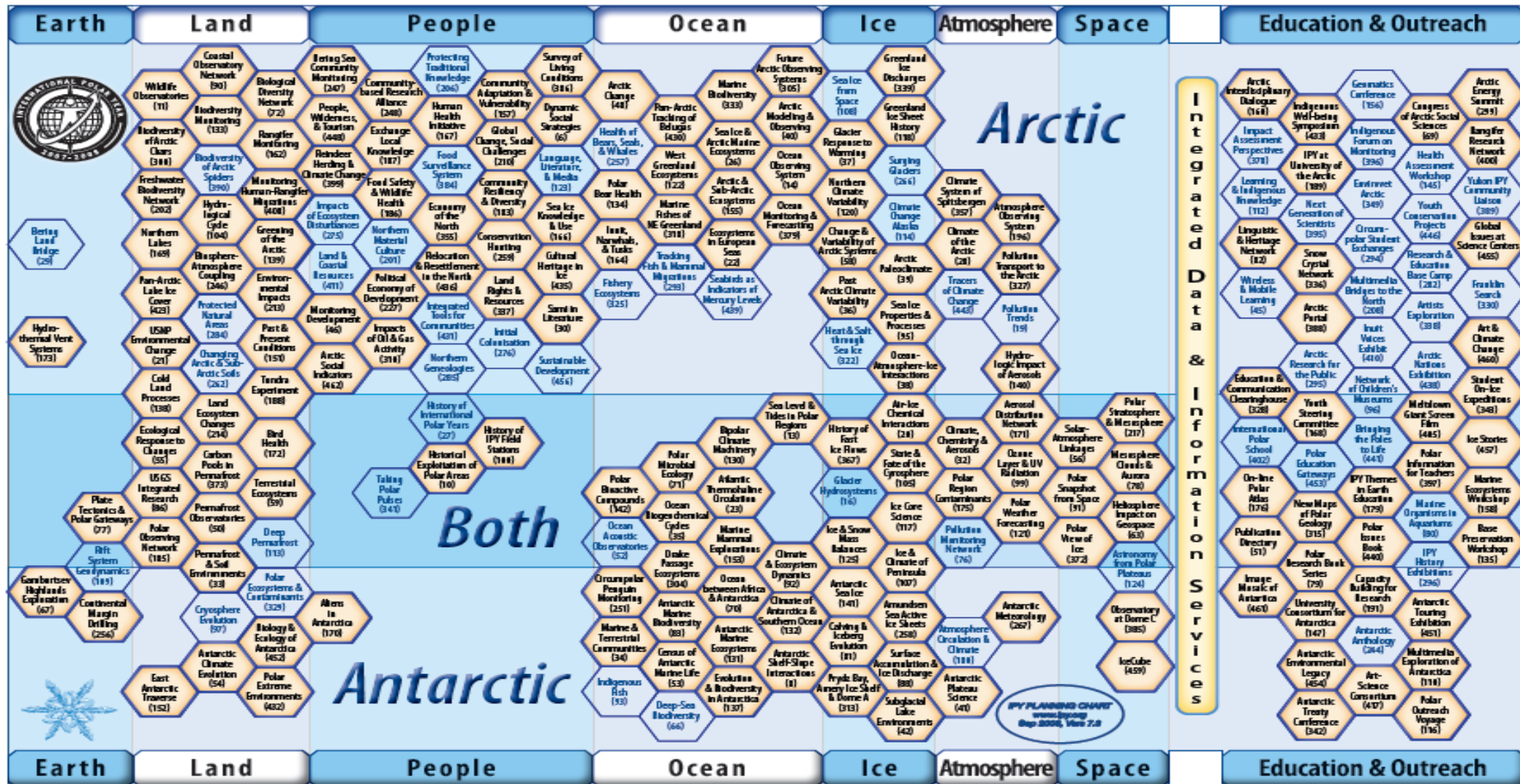


ICSU

International Council for Science

Regional Office for the Caribbean

The International Polar Year 2007 -2008



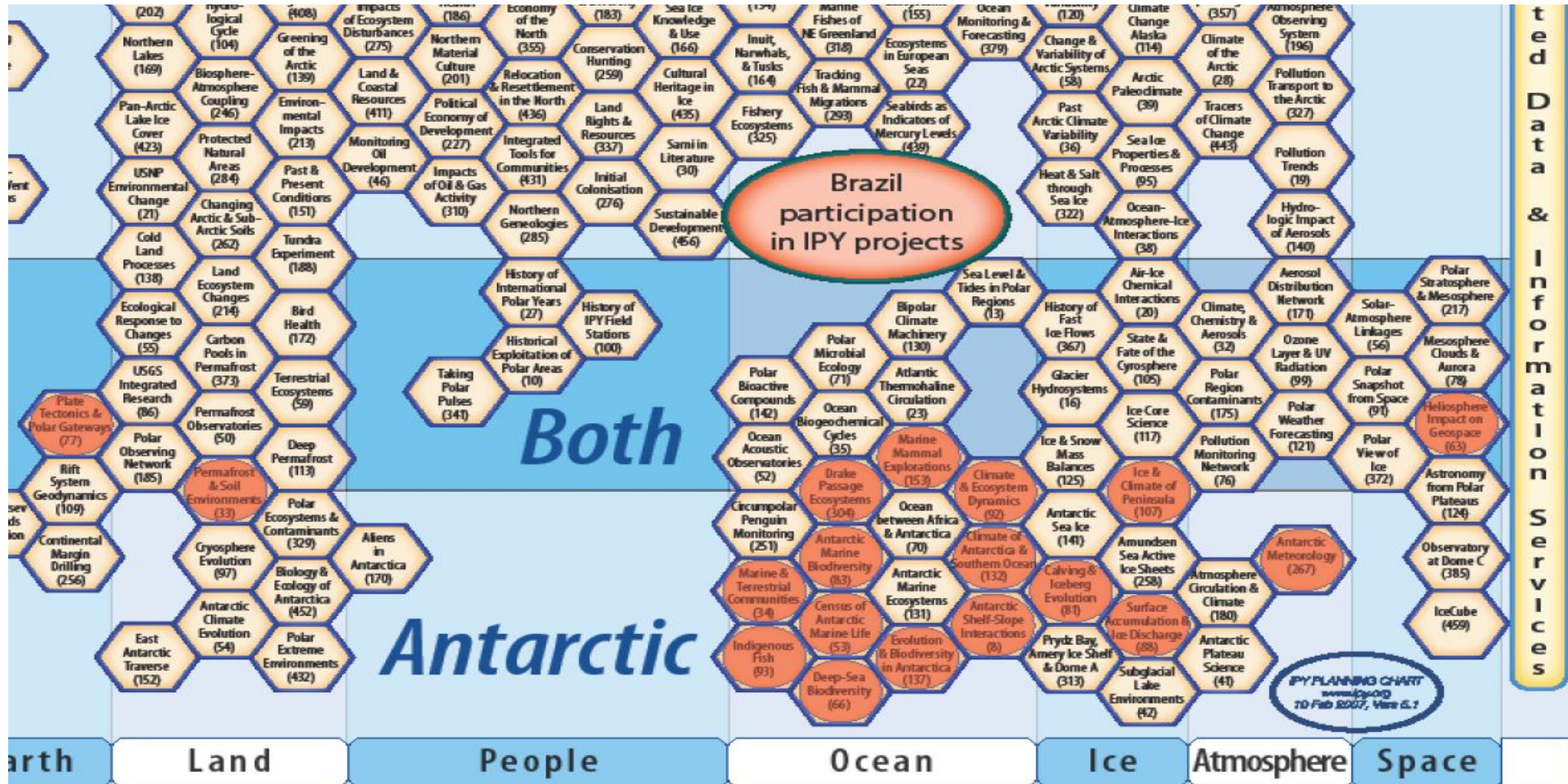
The International Polar Year 2007-2008



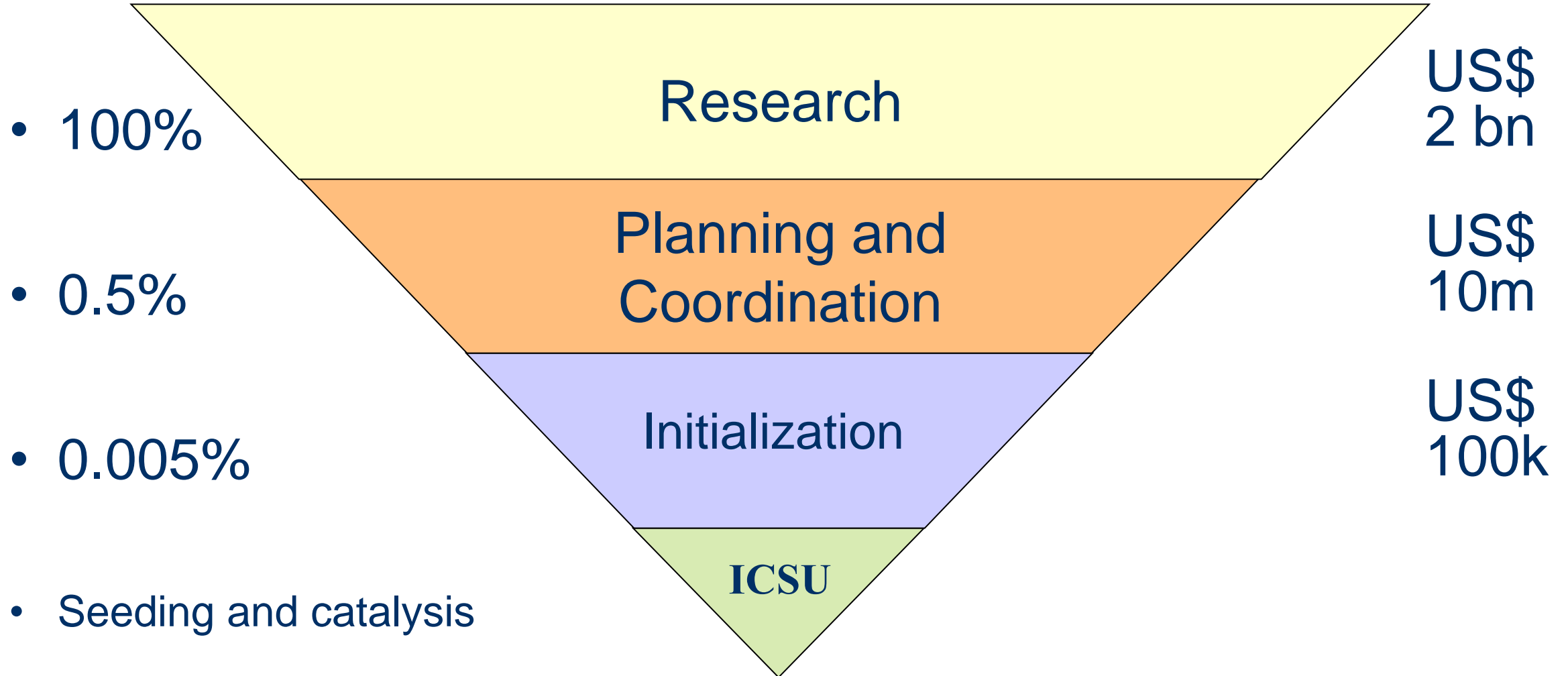
ICSU

International Council for Science

Regional Office for
Latin America and the Caribbean



ICSU's role: the IPY's example

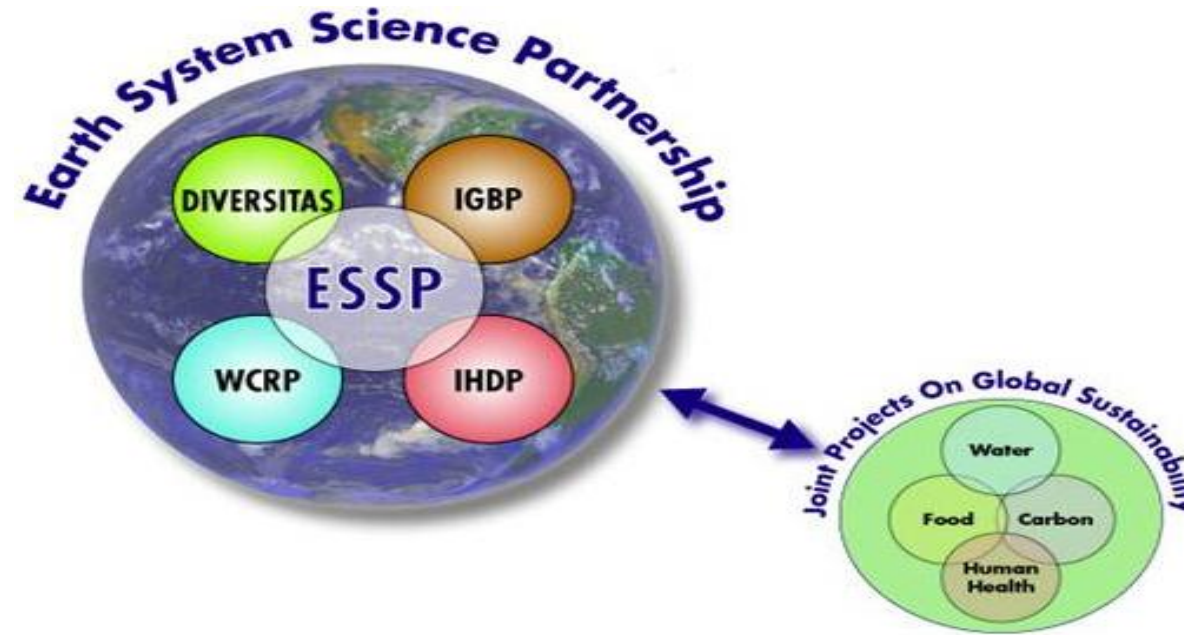


Coordinated Research

The four global change programmes provide the framework for the science on which IPCC assessments are built.

Earth System Science Partnership

- DIVERSITAS (Biodiversity)
- IGBP (Geosphere Biosphere)
- IHDP (Human Dimension)
- WCRP (World Climate)



Joint Projects on Global Sustainability Water / Food / Carbon / Human Health

Regional Office for Latin America and the Caribbean

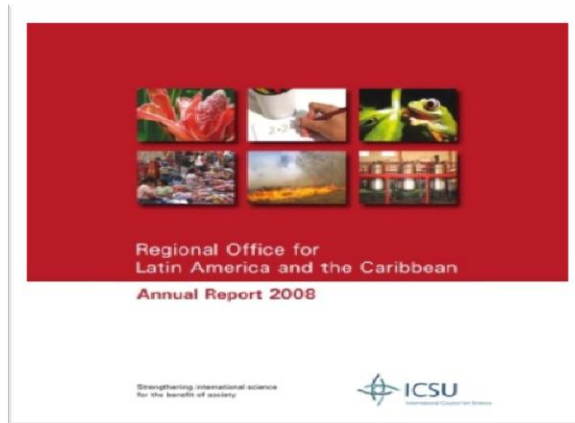


- The third Regional Office to be established
- Hosted by the Brazilian Academy of Sciences in Rio de Janeiro, Brazil
- Main financial support by the Ministry of Science and Technology of Brazil, together with ICSU and CONACYT

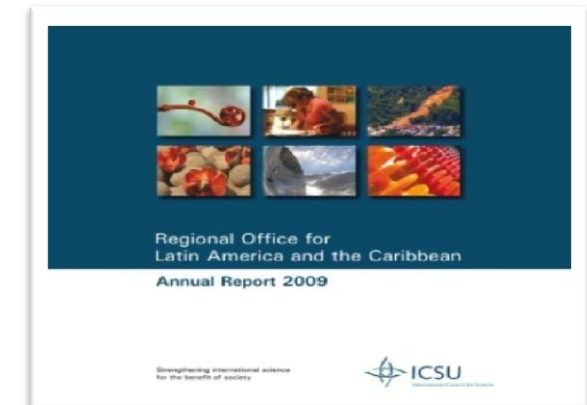
The ICSU Regional Office for Latin America and the Caribbean: a new opportunity for collaboration in the region



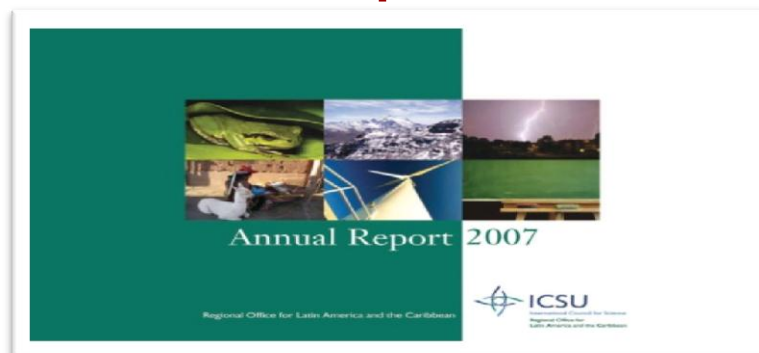
2008 Annual Report



2009 Annual Report



2007 Annual Report





Mission

Ensure that the regional priorities are reflected in ICSU strategic plan through the development of sound regional scientific programs.

International Scientific Cooperation in Latin America and the Caribbean - The situation



- Unequal development of science among countries.
- Uneven governmental commitment to support science locally.
- Different degrees of organization of scientific communities. (nations & disciplines).
- Centers of excellence in the region.
- A constant provider of educated workforce to the developed world..

* S. Pastrana. *The roles of ICSU, IAP and IAC. The Internationalization of scientific thought and action. The role of a global scientific community*

International Scientific Cooperation in Latin America and the Caribbean - The challenges



- To make science relevant locally.
- To make local science significant globally.
- To relate science to local AND global social and economic development.
- To increase the public understanding of science in our region.
- To make our governments USE local scientific knowledge.

* S. Pastrana. *The roles of ICSU, IAP and IAC. The Internationalization of scientific thought and action. The role of a global scientific community*

International Scientific Cooperation in Latin America and the Caribbean - The opportunities



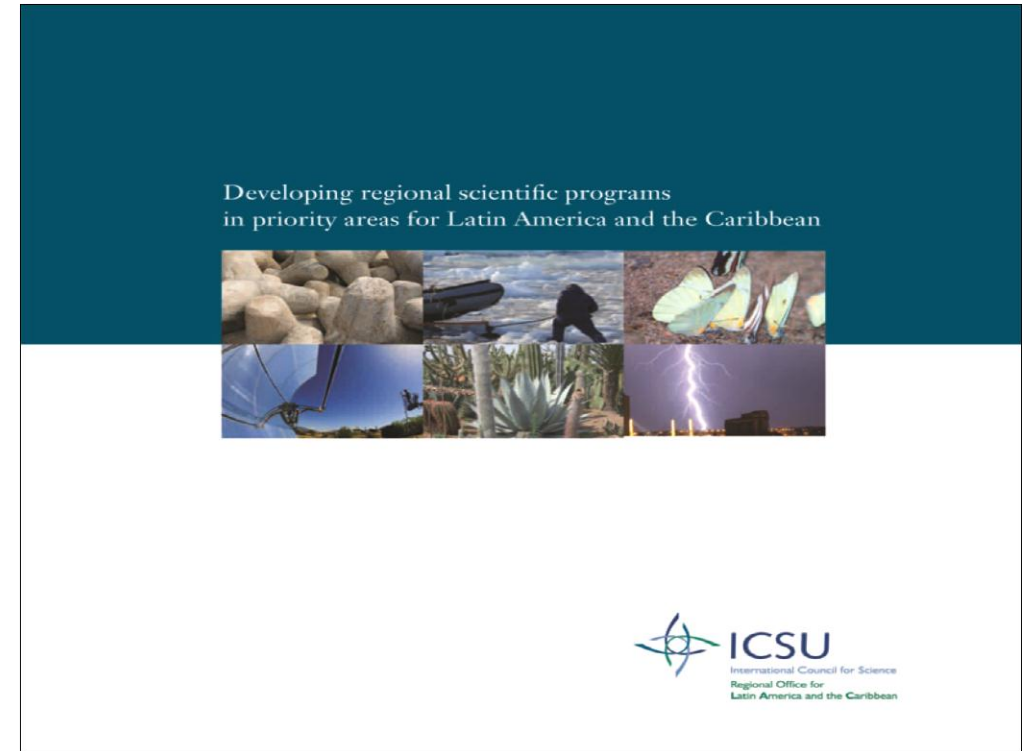
- A unique opportunity to share capacities and knowledge to really make a change.
- To define a strategy for sharing towards the synergy of all our individual efforts.
- To define common goals that could integrate to national development strategies that go beyond the short term limits.
- Invite governments to share our vision.

* S. Pastrana. *The roles of ICSU, IAP and IAC. The Internationalization of scientific thought and action. The role of a global scientific community*

Developing regional scientific programs in priority areas for Latin America and the Caribbean

- **4 Scientific Planning Groups**
- **ToRs defined by RCLAC**
- **12 meetings from December 2007 to August 2008**

The aim of the ICSU Science Plans is to become a reference to the development of scientific research in these areas in the years to come, and to promote the active involvement of the countries of the region in their implementation.





Natural Hazards and Disasters

Omar Dario Cardona (Colombia) Chair, Juan Carlos Bertoni (Argentina). Tony Gibbs (Barbados), Michel Hermelin (Colombia), Allan Lavell (Costa Rica/UK)

Understanding and Managing Risk Associated with Natural Hazards: An Integrated Scientific Approach in Latin America and the Caribbean

- Association of multidisciplinary (social and natural sciences) efforts in the field with: (i) proposals to further integrate the social/human dimensions of ecosystem services and conservation of biodiversity; (ii) Research and policies on climate change adaptation and mitigation.
- Database development: survey current systems of data generation and management in the region, including consideration of whether data gathering systems are being maintained and upgraded.



Biodiversity

Mary Kalin Arroyo (Chile) e Rodolfo Dirzo (México/US) Coordinadores. Juan Carlos Castilla (Chile), Francisco Cejas (Cuba), Carlos Joly (Brazil).

Biodiversity knowledge, scope of research and priority areas: an assessment for Latin American and the Caribbean

- Specimen based Database of validated information on LAC terrestrial and marine biodiversity, and define policy and ways toward collection and sharing of data.
- Elaborate a proposal for a multilateral regional program to guide collective research efforts on biodiversity.
- Establish a network of Ecological Observatories in LAC



Sustainable Energy

Décio Gazzoni (Brazil) Coord., Iván Azurdia Bravo (Guatemala), Gabriel Blanco (Argentina), Claudio Estrada (México), Isaías Macedo (Brasil).

Sustainable Energy in Latin America and the Caribbean: potentialities for the future

- Energy assessment in each particular region or country to define best combination of different energy resources
- Biomass research in LAC is very important because of natural conditions of the area. Also in order to decrease environmental damage caused by cooking with biomass. Scientific research for biofuels from cellulosic residues must be undertaken.
- Solar energy : LAC has human scientific resources to develop the high technology required regarding solar thermal energy as well as photovoltaic energy for the production of electricity.
- Create networks to exchange information among countries.



Mathematics Education

Carlos Bosch (Mexico) Coord., Lilliam Alvarez (Cuba), Rafael Correa (Chile), Suely Druck (Brasil), e Raymond McEachin (Jamaica)

Mathematics Education in Latin America and the Caribbean: a reality to be transformed

- To complete the assessment of existing good practices, sharing and expanding these experiences in the region.
- Develop suitable data, reliable and comparable at 12 years.
- Initial Teacher Training, (ITT) - Set standards in mathematics and language.
- Teachers in service. Produce good quality materials for teachers and students. To explore the on line and distance education. *To use ICTs to make more resources available to teachers and students.*
- Schools-based National Olympiad - Detect good teachers.

**Some concluding remarks:
the new challenges for international cooperation**

Defining together global/regional problems where science and technology can help

- **Global/regional problems demand global/regional solutions**
 - **that must be applied locally**

Some concluding remarks: the new challenges for international cooperation



Many formats of international collaboration

Regional Disciplinary networks RELAB RELAC RBL

- capacitybuilding;
- papers and visibility;
- Individual contact networks

The new role of Academies of Sciences - IAP IAC IANAS

The regional organizations - OAS OEI

UNESCO

**Some concluding remarks:
the new challenges for international cooperation**



A new model of international cooperation

LACCIR

**Latin American and Caribbean Collaborative ICT
Research Federation**

**Some concluding remarks:
the new challenges for international cooperation**

DEFINING RELEVANT PRIORITIES

WORKING TOGETHER

LOCAL LEADERSHIP AND CHAMPIONS

ADEQUATE FINANCING SCHEMES



ICSU
International Council for Science
Regional Office for
Latin America and the Caribbean

Thank you!

www.icsu-lac.org

alice.abreu@icsu-lac.org

secretariat@icsu-lac.org