



Regional Office for Latin America and the Caribbean

Annual Report 2012

About the Regional Office

To ensure that the
regional priorities are
reflected in the ICSU
strategic plan
and develop sound
regional scientific
program

ICSU Regional Office

About ICSU

Vision

The long-term ICSU vision is for a world where science is used for the benefit of all, excellence in science is valued and scientific knowledge is effectively linked to policy-making. In such a world, universal and equitable access to high quality scientific data and information is a reality and all countries have the scientific capacity to use these and to contribute to generating the new knowledge that is necessary to establish their own development pathways in a sustainable manner.

Mission

ICSU's mission is to strengthen international science for the benefit of society.

To do this, ICSU mobilizes the knowledge and resources of the international science community to:

- Identify and address major issues of importance to science and society.
- Facilitate interaction amongst scientists across all disciplines and from all countries.
- Promote the participation of all scientists — regardless of race, citizenship, language, political stance, or gender — in the international scientific endeavour.
- Provide independent, authoritative advice to stimulate constructive dialogue between the scientific community and governments, civil society, and the private sector.

Message from the Director of the Regional Office



During 2012 ICSU ROLAC has continued enjoying the hospitality and support of the Mexican Academy of Sciences (AMC), for which I would like to express my sincere gratitude.

In 2012 ICSU ROLAC's organized and participated in several important events to implement and develop the four scientific priority areas Biodiversity, Natural Hazards, Sustainable Energy and Mathematics Education, which comprise its strategic workplan. First of all, the Regional Office was involved in organizing together with prestigious Latin American research centers, the Workshop on Mathematics Education: '*Matemáticos en la Educación Matemática Escolar*', held in Santiago de Chile in January.

One of ICSU ROLAC's major achievements in 2012 was the organization together with several international and national organizations and research centers, the Workshop on Sustainable Energy Opportunities for Technological Transfer and Investment in Sustainable Energy in Latin America and the Caribbean that took place in Ocho Rios, Jamaica in April.

Our Regional Office co-organized with CONYCET (Argentina) and the Argentinean Academy of Science the Regional Workshop on Disaster Risk Management in Latin America and the Caribbean: Towards a project plan for integrated science and risk management for the region that took place in September in Buenos Aires, Argentina. Also, ICSU ROLAC participated in the Global-Regional Integration Workshop on Natural Hazards and Disasters in Kuala Lumpur, Malaysia, in September.

Another important event in 2012 was the participation of the Regional Office in the African Regional Implementation Workshop on Hazards and Disasters in Dakar, Senegal in September. We also attended the Third Session of the Regional Platform for Disaster Risk Reduction of the Americas organized by UNISDR in Santiago de Chile in November and delivered a plenary statement on behalf of the scientific community stressing the role of science in disaster risk reduction.

One of ICSU ROLAC's milestones in 2012 was the organization of Future Earth Regional Workshop for Latin America and the Caribbean. Future Earth is a 10-year international initiative on Earth system research for global sustainability. The workshop took place in Mexico City in December 3-4th and brought together high level scientists and policy-makers, from various countries and several disciplines, who discussed the future of sustainable development in the Region.

The workshops that ICSU ROLAC organized on Disaster Risk Management (Argentina), Sustainable Energy (Jamaica) and Future Earth (Mexico), will have a follow up in 2013 to establish them as major projects for Latin America and the Caribbean.

We are looking forward to the knowledge exchange between high level natural and social scientists, policy-makers and the industrial sector in our region.

Manuel Limonta
Director of the Regional Office

Message from the Chair of the Regional Committee



Along 2012 we achieved the expansion of our networking activities within the region as well as with ICSU programs and initiatives around the world. We are still pursuing the strengthening of international science for the benefit of society in Latin America and the Caribbean.

The 2012 review of the Regional Office shows the many achievements that ICSU ROLAC succeeded in. These steps forward include the various scientific activities in Latin America and the Caribbean, which are described in detail in this document. They also include several outreach activities and establishing a vigorous networking effort among partner institutions within the ICSU family and within our region, and the establishment of numerous links between scientists and ICSU that will improve the developing status of the areas in order to contribute with the region's development. The implementation of science plans, make possible the consolidation of the importance of science and progress in the region.

These achievements would not have been possible without the continuous efforts of many people and institutions who invested their time, knowledge and resources to make ICSU ROLAC a stronger organization. I thank them all for their contributions to the scientific communities and the development of the region.

ICSU ROLAC has continued collaborating with various organizations in the region and at a global scale as well, such as UNESCO, IANAS and OAS, and continued its close collaboration with ICSU headquarters and Regional Offices for Africa and Asia and the Pacific, as well as with ICSU Inter-disciplinary bodies, National and Union Members.

2012 also brought about some changes to the composition of the Regional Committee. I would like to extend a warm welcome to Anthony Clayton, Humberto Rodríguez and Jerson Silva as new Committee Members. On the other hand, Mahabir Gupta, Elena Vigil and myself finished our second term as Committee Members and according to ICSU rules could not be reelected. I would like to express my gratitude for their continuous dedication to ICSU ROLAC over the past six years and for their commitment to strengthen international science for the benefit of society in Latin America and the Caribbean.

I also would like to thank ICSU, ICSU ROLAC and the Regional Committee for their strong support and giving me the opportunity to collaborate with them all along these years. I am sure that ICSU ROLAC has done a great job and will continue its success, together with the Regional Committee and his new Chair, Dr. José Luis Morán López, in coming years.

José Antonio de la Peña
Chair of the Regional Committee

Photos: Manuel Limonta and José Antonio de la Peña

Regional Committee

11th Meeting of the Regional Committee

12th Meeting of the Regional Committee

Composition ICSU Regional Committee

11th Meeting of the Regional Committee



From April 12 to 13th, the ICSU Regional Committee for Latin America and the Caribbean of ICSU held their 11th meeting in Ocho Rios, Jamaica. During their 11th Meeting, the Committee welcomed the new Committee Members. The Secretariat informed the Committee about the recent outreach activities of the Regional Office, its communication strategy, as well as the projected budget for 2012, and presented the draft 2011 Annual Report. Furthermore, the Committee was informed about and discussed the outcome of the ICSU grant programme 2012, ICSU's Future Earth

Initiative, ICSU's role in the context of the Rio+20 process, as well as the ICSU Sida proposal. During the Meeting, the Regional Directors of ICSU ROA and of ICSU ROAP presented the activities and the strategic priorities of their Regional Offices by Skype. As a work priority of ICSU ROLAC, the Committee discussed in detail the past and upcoming implementation activities of the four ICSU ROLAC scientific priority areas biodiversity, natural hazards, sustainable energy, and mathematics education.

Photo: Participants of the 11th Meeting of the ICSU Regional Committee for Latin America and the Caribbean

12th Meeting of the Regional Committee

The 12th ICSU Regional Committee Meeting for Latin America and the Caribbean (RCLAC12) was held in Buenos Aires, Argentina from August 30 to 31st. The 12th RCLAC meeting was hosted by the Argentine National Academy of Exact, Physical and Natural Sciences (ANCEFN). The Committee discussed the past and upcoming implementation activities of the four ICSU ROLAC scientific priority areas biodiversity, natural hazards, sustainable energy, and mathematics education. The Secretariat informed the Committee about the recent outreach activities of the Regional Office, and about its communication strategy, including the publication of the

first edition of the ICSU ROLAC newsletter. The ICSU Executive Director presented recent activities of ICSU at the global level, including ICSU's participation in the Rio+20 Conference, the ICSU Science Forum, and the Future Earth Initiative. The Committee discussed the organization of the upcoming Future Earth Regional Workshop for LAC. The President of ICSU, Yuan Tseh Lee, and the ICSU Executive Director Steven Wilson participated in the Committee meeting and both gave a public lecture. Steven Wilson spoke at the Argentine Council for International Relations (CARI) on August 30th. Yuan Tseh Lee became Honorary Member of the ANCEFN on August 31st and gave a presentation.



Photo: Participants of the 12th Meeting of the ICSU Regional Committee for Latin America and the Caribbean

Composition ICSU Regional Committee



RCLAC 2012 Members

- José Antonio de la Peña, Mexico – Chair (2006-2012)
- Anthony Clayton, Jamaica (2012-2014)
- Patricio Felmer, Chile (2010-2015)
- Mahabir Gupta, Panama (2006-2012)
- Arturo Martínez, Argentina (2010-2015)
- Humberto Rodríguez, Colombia (2012-2014)
- Jerson Silva, Brazil (2012-2014)
- Elena Vigil, Cuba (2006-2012)

Ex officio

- José Luis Morán López from September 2011 (AMC)
- Luiz Davidovich (ICSU Executive Board)
- Steven Wilson (ICSU Secretariat)
- Manuel Limonta (ICSU ROLAC Director)

Guest

- Professor Yuan Tseh Lee (ICSU President)

Photo: From rear left to front right Laura Leff, Humberto Rodríguez, Arturo Martínez, José Luis Morán López, Danita García, María Teresa Viramontes, Kerstin Schimdt-Verker, Elena Vigil, Mahabir Gupta, Patricio Felmer, Jerson Silva, Steven Wilson, José Antonio de la Peña, Yuan Tseh Lee and Manuel Limonta.

Scientific Priority Areas

Biodiversity

Natural Hazards

Mathematics Education

Sustainable Energy

The four science plans related to the ICSU ROLAC scientific priority areas: biodiversity, natural hazards sustainable energy, and mathematics education are available in English and Spanish, thanks to the generous support of CONACYT Mexico. The documents can be downloaded in English and Spanish from the ICSU ROLAC website: www.icsu.org/latin-america-caribbean.



Scientific Priority Areas

During 2012 different activities, networking and workshops related to the four priority areas biodiversity, natural hazards, sustainable energy and mathematics education were organized, which address the objectives identified in the science plans.



Photo: Parrots (Thinkstockphotos).

Priority Area: Biodiversity

The ICSU ROLAC has been working in several research and policy biodiversity priorities for the LAC region, including the evaluation of biodiversity and ecosystem services, the consolidation of a network on ecological observatories, the development of a regional-scale assessment of the impacts of invasive species, and the transference of biodiversity and biocultural knowledge into sustainable economic activities. Also, ICSU ROLAC is planning to put forward a major effort on access to benefit sharing from biodiversity for the region. The Convention on Biological Diversity adopted the Nagoya Protocol in 2010 aims to regulate the access to biological material and the fair and equitable sharing of benefits derived from their utilization. Currently, biodiversity scientists still face many barriers when conducting non-commercial academic research with material from abroad. ICSU ROLAC in collaboration with DIVERSITAS and the Swiss Academy of Sciences is planning a workshop in June to bring together researchers and policy-makers from LAC to engage in an insightful dialogue in order to discuss current obstacles regarding access to biological material and clarify the needs of Academia and government agencies.

Priority Area: Natural Hazards

The ICSU ROLAC science plan on understanding and managing risk associated with natural hazards identified the need for more inter- and trans-disciplinary research. The objectives are to identify significant natural hazards processes and patterns, understand the factors and processes that contribute to the social construction of risk, identify ways to evaluate risks objectively and the ways risk are socially analyzed, and understand decision-making processes in the context of risks.

ICSU ROLAC, in collaboration with the Argentine National Council for Scientific and Technical Research (CONICET) and the Integrated Research on Disaster Risk (IRDR) program, organized the “Regional Workshop on Disaster Risk Management in LAC: Towards a project plan for integrating science and risk management for the region” in Buenos Aires, Argentina from September 3-5th. The event was co-financed by an ICSU grant and CONICET (Argentina) and supported by the Argentine National Academy of Exact, Physical and Natural Sciences (ANCEFN) under the auspices of the Argentine Ministry of Science, Technology and Productive Innovation (MINCyT). The conceptual approach



Upper photo: Participants of the Global-Regional Integration Workshop on Natural Hazards and Disasters, in Kuala Lumpur, Malaysia, September 2012
Bottom photo: Participants of the Regional Workshop on Disaster Risk Management in LAC, Buenos Aires, Argentina, September 2012.



of this workshop was based on the ICSU ROLAC Science Plan “Understanding and Managing Risk Associated with Natural Hazards: A Comprehensive Scientific Approach for LAC” as well as on the IRDR Science Plan.

ICSU ROLAC participated in the “Global-Regional Integration Workshop on Natural Hazards and Disasters”, which took place from September 13-14th, in Kuala Lumpur, Malaysia. The workshop was organized by the ICSU Regional Office for Asia and Pacific (ICSU ROAP) and funded by a grant provided to ICSU by the Swedish International Development Cooperation Agency (Sida). The objective of the workshop was to develop a framework to harmonize the work on hazards and disaster risk reduction coordinated by ICSU at the global and at the regional levels. The Integrated Research on Disaster Risk (IRDR) program, co-sponsored by ICSU, ISSC and UNISDR, as well as the three ICSU Regional Offices each had developed Science Plans on Hazards and Disaster Risk Reduction and started their implementation. Communalities and differences of the Science Plans were presented, and workshop participants discussed potential ways forward to integrate their implementation, as well as the coordination of funding proposals to be submitted to potential donors, into a common strategy under the umbrella of ICSU. Yet, it was stressed that regional characteristics and priority concerns should be taken into account in this global approach.

Another important event was the participation of the Regional Office in the “African Regional Implementation Workshop on Hazards and Disasters” in Dakar, Senegal, from September 26-27th. The workshop was organized by the ICSU Regional Office for Africa (ICSU ROA) and funded by a grant provided to ICSU by Sida. The meeting was attended by African scientists and policy-makers working on the subject of disaster risk reduction, as well as by representatives of the Integrated Research on Disaster Risk (IRDR) program, co-sponsored by ICSU, ISSC and UNISDR, as well as from the Asia-Pacific and the Latin American and Caribbean Regions.

Noteworthy was ICSU ROLAC attendance to the Third Session of the Regional Platform for Disaster Risk Reduction of the Americas organized by UNISDR in Santiago de Chile from November 26-28th. The Regional Director, Manuel Limonta, delivered a plenary statement on behalf of the scientific community and participated in a roundtable discussion, stressing the role of science in disaster risk reduction.



Photo: Manuel Limonta speaking at the Third Session of the Regional Platform for Disaster Risk Reduction of the Americas, Santiago de Chile, November 2012.



Photo: Participants of the African Regional Implementation Workshop on Hazards and Disasters, Dakar, Senegal, September 2012.

Priority Area: Mathematics Education

The ICSU ROLAC science plan on mathematics education in LAC concluded that in this region children are not being taught at the level they will need to live their lives and work productively, and that children’s mathematical knowledge is poor in relation to the international average.

As a step forward to solve this regional shortage IICSU ROLAC co-sponsored the regional workshop on mathematics education: ‘*Matemáticos en la Educación Matemática Escolar*’ held in Santiago de Chile, Chile from January 11-13th. José Antonio de la Peña (Mexico), Chair of ICSU ROLAC and member of the Scientific Committee of the workshop, and Patricio Felmer (Chile), member of ICSU ROLAC and member of the Organizing



Committee of the workshop gave lectures during the event. The workshop identified three major areas of need for action related to mathematics education in LAC, which are the training of mathematics teachers, the involvement of more students into mathematics tournaments and the formulation of standards for the initial education of mathematics teachers.

The ICSU Regional Director, Manuel Limonta and the Chair of the Regional Committee, José Antonio de la Peña participated in the workshop “Capacity and Network Project (CANP)” held in August in San Jose, Costa Rica from August 6 and 17th. The program of this event included a presentation by the Regional Director about ICSU ROLAC and

particularly about its priority area Mathematics

Education, and a lecture by Jose Antonio de la Peña entitled “Epistemology and History of Mathematics Education”



Photo: Participants of the “Matemáticos en la Educación Matemática Escolar” workshop, Santiago de Chile, Chile, January 2012.

Priority Area: Sustainable Energy

The ICSU ROLAC science plan on sustainable energy in LAC recommends the organization of workshops and seminars on renewable energy, and the strengthening of linkages between scientists and institutions linked to

the industrial, trade and financing sectors.

From April 10-11th, the Workshop on Sustainable Energy: “Opportunities for Technological Transfer and Investment in Sustainable Energy in Latin America and the Caribbean” took place in Ocho Rios, Jamaica. This workshop was organized by the

Regional Office for Latin America and the Caribbean (ROLAC) for the International Council for Science (ICSU) in collaboration with the UNESCO Regional Bureau for Science in Latin America and the Caribbean, the Mexican Physical Society (SMF), the Inter-American Development Bank (IADB), the Interamerican Network of Academies of Sciences (IANAS), the



Photo: Participants of the Opportunities for Technological Transfer and Investment in Sustainable Energy in Latin America and the Caribbean Workshop, Ocho Rios, Jamaica, April 2012.

National Autonomous University of Mexico (UNAM), the Electric Power Saving Trust Fund of Mexico (FIDE), the Caribbean Academy of Sciences (CAS), the Mexican Academy of Sciences (AMC) and the National Council on Science and Technology of Mexico (CONACyT). The main objectives of this workshop were: bring together scientists from different sustainable energy areas and the industrial sector of LAC, with the purpose of converting the results of scientific research in LAC into industrial and commercialized processes in LAC, and discuss sustainable energy issues for universal energy access and to mitigate global climate change. The topics of the workshop included: energy and climate change, solar thermal energy, sustainable buildings, energy efficiency, hydrogen and fuel cells and innovation in energy technologies.

The workshop was attended by experts from 7 countries in the LAC region, representing science, industry and institutions at the interface between science and policy. During the two days of the event, 11 lectures were given and two roundtable discussions took place. At the end of the second day, the recommendations of the workshop and potential follow-up activities were presented and discussed by the participants.

FIRST WORKSHOP ON

SUSTAINABLE ENERGY

FOR RESEARCHERS AND INDUSTRIALS IN LAC

OPPORTUNITIES OF TECHNOLOGICAL TRANSFER AND INVESTMENT

10-11 APRIL 2012, RESORT SUNSET JAMAICA GRANDE, OCHO RIOS, JAMAICA

Closing date for reception of presentation summaries: 10 March, 2012

Objectives:

- * Bring together scientists of basic and applied sciences from different sustainable energy areas and the industrial sector of LAC.
- * Discuss sustainable energy issues for universal energy access and to mitigate global climate change.
- * Introduce the state of art of technologies of alternative energies in the world and in LAC.
- * Introduce the importance and research opportunities of renewable energies, seeking a connection with scientists and the industrial sector in LAC.

Contact: secretariat@icsu-latin-america-caribbean.org
www.icsu.org/latin-america-caribbean

THEMES:

- BIOENERGY
- ENERGY EFFICIENCY
- FUEL CELLS
- HYDRO ENERGY
- HYDROGEN SECTOR
- INNOVATION FINANCING
- NUCLEAR ENERGY FISSION AND FUSION
- SOLAR PHOTOVOLTAIC ENERGY
- SOLAR THERMAL ENERGY
- WIND ENERGY

ICSU ROLAC and Future Earth

Future Earth Regional Workshop for LAC

Future Earth Regional Workshop for LAC

Future Earth is a new 10-year international research initiative that will develop the knowledge for responding effectively to the risks and opportunities of global environmental change and for supporting transformation towards global sustainability in the coming decades. Future Earth will mobilize thousands of scientists while strengthening partnerships with policy-makers and other stakeholders to provide sustainability options and solutions in the wake of Rio+20.

Future Earth will be a global platform to deliver solution-orientated research for sustainability, linking environmental change and development challenges to satisfy human needs for food, water, energy and, health; effective interdisciplinary collaboration across natural and social sciences, humanities, economics, and technology development, to find the best scientific solutions to multi-faceted problems; timely information for policy-makers by generating the knowledge that will support existing and new global and regional integrated assessments; participation of policy-makers, funders, academics, business and industry, and other sectors of civil society in co-designing and co-producing research agendas and knowledge; and increased capacity building in science, technology and innovation, especially in developing countries and engagement of a new generation of scientists.

Future Earth will build on the success of existing global environmental change programmes (Diversitas, IGBP, IHDP, WCRP and ESSP), to help develop a stronger and broader community. The Planet Under Pressure conference (London, March 2012) was a step towards this goal, with wide support of Future Earth as one of its major outcomes.

The Future Earth Regional Workshop for Latin America and the Caribbean took place in Mexico City from December 3-4th. The Workshop is part of a series of regional consultations in the context of Future Earth. The workshop was attended by more than 40 scientists, representatives of funding organizations and NGOs from various countries and with different backgrounds. The aims of the workshop were to develop a common understanding of Future Earth, including its vision, research framework and governance, to identify regional research priorities (research questions, required capabilities, etc.) that will help shape the Future Earth research strategy in Latin America and the Caribbean, to discuss opportunities and challenges for implementing Future Earth in the region and to explore the best ways of establishing a regional interface for Future Earth. A follow up workshop in Rio de Janeiro, Brazil, April 15-16th, will ensure continuity and accomplishment of results.



Photos: Participants of the Future Earth Regional Workshop for Latin America and the Caribbean, Mexico City, December 2012.

ICSU Grants Programme

- Capacity and Network Project (CANP) Central America and the Caribbean-IMU
- Capacity Building and Science Education Activities in Solar Terrestrial Physics: Focusing on Southeast Asia, Africa and South America-SCOSTEP
- Disaster Risk Management in Latin America and the Caribbean-Towards an Integrated project plan for the Region-IRDR

ICSU Grants Programme

Since 2008 the Regional Office has been a partner to several ICSU Grants. In 2012 ICSU awarded three grants co-sponsored by the Regional Office.

Capacity and Network Project (CANP) Central America and the Caribbean-IMU

CANP Central America and the Caribbean is an international scientific development initiative of the International Mathematical Union, carried out jointly with its subcommission ICMI and supported by UNESCO, the ICSU Regional Office for Latin America & the Caribbean, Interamerican Committee on Mathematics Education, the Ministry of Education of Costa Rica as well as regional universities. The Project aims to strengthen mathematical education through fostering regional development and capacity building for teachers and educators, forming self-sustainable networks concerned with mathematics education, assuring better quality education and enhancing the mathematical and pedagogical potential of the region. The Project had a two week programme held in Costa Rica from August 6-17th, consisting of a workshop for forty participants from Costa Rica, Panama, Colombia, Venezuela, and the Dominican Republic. A post-workshop in 2013 will ensure continuity and evaluation.

Capacity Building and Science Education Activities in Solar Terrestrial Physics: Focusing on Southeast Asia, Africa and South America-SCOSTEP

The Scientific Committee on Solar Terrestrial Physics (SCOSTEP) has partnered with the International Space Weather Initiative (ISWI) in capacity building and science education (CBASE) activities in Asia, Africa, and South America in collaboration with the International Union of Radio Science (URSI) and ICSU regional offices for Asia and the Pacific (ICSU/ROAP), Africa (ICSU/ROA), and Latin America and the Caribbean (ICSU/ROLAC). Three Space Weather/Space Science schools will be organized in the three key regions of the world: Asia Pacific (2012) Africa (2013), and South America (2014). The school topics will cover the origin of solar magnetic variability in the convective envelope of the Sun, the emergence of magnetic regions into the solar atmosphere, the production of large-scale solar eruptions and their impact on Earth's space environment. Particular emphasis will be placed on the role of the Sun in Earth's climate in comparison with the anthropogenic effects such as the production of greenhouse gases.

Disaster Risk Management in Latin America and the Caribbean-Towards an Integrated project plan for the Region-IRDR

The major activity presented in this ICSU grant proposal, submitted by the Integrated Research on Disaster Risk (IRDR) and supported by the ICSU Regional Office for Latin America and the Caribbean (ICSU ROLAC), and the National Council for Scientific and Technological Research of Argentina (CONICET) was a workshop on disaster risk reduction in Latin America and the Caribbean in Buenos Aires, Argentina in September. The workshop brought together established scientists, young scientists and policy-makers from different countries in the LAC region and integrated various disciplines in the natural and social sciences as well as engineers. It strength scientific capacity in disaster risk research and identify policies to most efficiently reduce losses due to disasters in the region. The project provided an excellent opportunity for a close collaboration between IRDR, ICSU ROLAC and other partners in the region to reduce disaster risk

Reaching Out

- Strengthening Relations with the ICSU Family
- Scientific Unions Regional Contacts
- Reaching Out to International Organizations

Strengthening Relations with the ICSU Family

In 2012, ICSU ROLAC continued to interact with various members of the ICSU family including ICSU headquarters, the Regional Offices for Africa and for Asia and the Pacific, as well as ICSU inter-disciplinary bodies, national members and union members.

ICSU Science Forum en Rio de Janeiro, Brazil, June 11-15th (Manuel Limonta, Arturo Martínez and Kerstin Schmidt-Verkerk)

ICSU Chairs and Directors Meeting, Paris, France, November 12-13th (Manuel Limonta)

Global-Regional Integration Workshop on Natural Hazards and Disasters, Kuala Lumpur, Malaysia, September 13-14th (Manuel Limonta, Arturo Martínez and Kerstin Schmidt-Verkerk)

African Regional Implementation Workshop on Hazards and Disasters, Dakar, Senegal, September 26-27th (Kerstin Schmidt-Verkerk and Arturo Martínez)

Scientific Unions Regional Contacts

The relations with the Scientific Unions continued to be strengthened in 2012, and 14 Unions have now appointed a contact person for Latin America and the Caribbean.

SCIENTIFIC UNIONS REGIONAL CONTACTS

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| IAU - International Astronomical Union - Marta Rovira |
| IGU - International Geographical Union - Irasema Alcántara-Ayala |
| IMU - International Mathematical Union - Marcelo Viana |
| IUGG - International Union of Geodesy and Geophysics - Luiz Paulo Souto Fortes |
| IUGS - International Union of Geological Science - Marta Mantovani |
| IUPAB - International Union for Pure and Applied Biophysics - Marcelo Morales |
| IUPAC - International Union of Pure and Applied Chemistry - Ram S. Lamba |
| IUPAP - International Union of Pure and Applied Physics - Carmen Cisneros |
| IUPsyS - International Union of Psychological Sciences - Juan Jose Sanchez Sosa |
| IUTAMX - International Union of Theoretical and Applied Mechanics - Luiz Bevilacqua |
| URSI - International Union of Radio Science - Emanuel Costa |
| IUFRO - International Union of Forest Research Organizations - Bastiaan Louman |
| ISPRS – Internl. Society for Photogrammetry and Remote Sensing - Mario Hernández |
| IPY - International Polar Year - Miriam Hebling Almeida |

Reaching Out to International Organizations

In 2012, ICSU ROLAC attended Meetings of various Regional and International Organizations, including the Academy of Sciences for the Developing World (TWAS), World Congress on Advanced Research Project (WARP), the Organization of American States (OAS), and the Panamanian Society for the Advancement of Science (APANAC).



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| ICO/ICTP/TWAS Central American Workshop in Lasers: Laser Applications and Laser Safety Regulations, took place in San José, Costa Rica, from April 30 - May 11 th , 2012 (Manuel Limonta represented ROLAC) |
| The World Congress on Advanced Research Project (WARP): State, Market and Human Development in the 21 st Century, took place in Mexico City, from May 14-29 th , 2012 (Manuel Limonta represented ROLAC) |
| Organization of American States (OAS) General Assembly, took place in Cochabamba, Bolivia, from June 2-5 th , 2012 (Kerstin Schmidt-Verkerk represented ROLAC) |
| World Automation Congress took place in Puerto Vallarta, México, from June 24-28 th , 2012 (Manuel Limonta represented ROLAC) |
| XIV th Congress of the Panamanian Society for the Advancement of Science (APANAC), took place in Panama City, Panama, from October 17-20 th , 2012 (Kerstin Schmidt-Verkerk represented ROLAC) |
| 7 th Regular meeting of the Inter-American Committee on Science and Technology, held in Washington DC, from October 18-19 th (Manuel Limonta) |

Photo left: Heinz Dieterich, José Antonio de la Peña and Manuel Limonta at WARP, Mexico City, May 2012.
Photo right: Manuel Limonta with Mario Molina (Nobel Prize of Chemistry 1995) and Mo Hamshidi at the World Automation Congress, Puerto Vallarta, México, June, 2012.

The Regional Office

Secretariat

Financial Summary

Additional project funding

Secretariat

The ICSU ROLAC Secretariat is hosted by the Mexican Academy of Sciences in Mexico City, Mexico. Under the leadership of the Regional Director Manuel Limonta, the Secretariat coordinates and implements the scientific activities of the Regional Committee. The Secretariat also acts as liaison to ICSU headquarters in Paris.

ICSU Regional Office for Latin America and the Caribbean (ROLAC)

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COMMUNICATION OFFICER (since December 2011)

Danita Garcia



Photo: From left to right Kerstin Schmidt-Verkerk, Irasema Alcántara-Ayala, José Franco and Manuel Limonta in the celebration of the Mexican Academy of Sciences for the election of the new Steering Committee and its President José Franco (May 17th).

Financial Summary

ICSU ROLAC’s main funding in 2012 came from the National Council on Science and Technology (CONACyT) of Mexico and from ICSU headquarters. The contribution from CONACyT Mexico was earmarked for salaries as well as Regional Committee Meetings. ICSU and CONACyT funding in 2012 was fundamental to support the activities, including travel and accommodation, of ICSU ROLAC staff and of the Regional Committee Members. The Mexican Academy of Sciences (AMC) hosts ICSU ROLAC since its relocation to Mexico and provides the infrastructure as well as office supplies, which are crucial for the functioning of the office.

| Financial Summary 2012 | |
|----------------------------------|------------|
| | Credit USD |
| CONACyT | \$ 290,166 |
| ICSU | \$ 66,000 |
| Total | \$ 356,166 |
| Expenses | |
| ROLAC workshops | |
| ROLAC workshops travel | \$ 28,882 |
| ROLAC workshops accommodation | \$ 36,397 |
| Meetings RCLAC | |
| RCLAC travel | \$ 9,509 |
| RCLAC accommodation | \$ 18,723 |
| Other workshops | |
| Other workshops travel | \$ 20,864 |
| Other workshops accommodation | \$ 7,254 |
| ROLAC Expenses | |
| Staff | \$ 157,989 |
| Taxes and obligations | \$ 34,249 |
| Editing, printing and material | \$ 4,574 |
| Shipments | \$ 3,554 |
| Secretariat local transportation | \$ 1,352 |
| Total Expenses | \$ 323,348 |



Additional project funding

Future Earth Regional Workshop for LAC

The Swedish International Development Agency (Sida) financed the organization of the Future Earth Regional Workshop for LAC. The Mexican Academy of Sciences (AMC) generously hosted the event on its premises and provided the infrastructure, as well as logistical and technical support.



| Future Earth Project | |
|--|------------|
| | Credit USD |
| Sida | \$ 51,373 |
| Expenses | |
| Travel | \$ 23,918 |
| Accommodation and local transportation | \$ 8,114 |
| Supplies and printing | \$ 372 |
| Meals and welcome dinner | \$ 8,096 |
| Total Expenses | \$ 40,500 |
| Balance | \$ 10,873 |

The International Council for Science (ICSU)

- Benefits of Joining ICSU
- ICSU Interdisciplinary Bodies
- ICSU Scientific Unions
- ICSU Scientific Associates
- ICSU National Members

Benefits of Joining ICSU

The benefits of membership in ICSU are manifold and Members make greater or lesser use of the opportunities available to them as they wish. The main difference between full National membership and that of Associates status is that Members have voting rights at the General Assembly and thus help determine ICSU's future direction.

- All Members receive copies of ICSU publications: the electronic newsletter ICSU Insight, Annual Reports, as well as any other publications or series of publications produced.
- Members have access to the Member Zone on the ICSU website and thus to documents not made available to the general public and they can search the ICSU database. Members also benefit from access to different committees of ICSU, for example, the Committee on Freedom and Responsibility in the conduct of Science which, inter alia, helps solve visa problems for scientists wishing to attend scientific meetings and gives advice to organizers of international meetings. Even more importantly, Members

gain access to the global scientific community and to the enormous network of scientists comprising the membership of ICSU, and the prestige provided by the ICSU umbrella.

- ICSU's International Scientific Unions and National Scientific Members (National Academies of Science or National Research Councils for the most part) meet every three years in the ICSU General Assembly. Members get an excellent cross-discipline opportunity for the exchange of ideas and also get access to a wide spectrum of scientific expertise. This enables Members to address major international, interdisciplinary issues, which they could not undertake alone.

For further information on the range of ICSU's activities, see the ICSU interactive website: www.icsu.org. Since March 2011, the ICSU ROLAC website has been integrated into the ICSU global website. ICSU ROLAC's activities are highlighted at www.icsu.org/latin-america-caribbean.

ICSU Interdisciplinary Bodies

The Interdisciplinary Bodies of ICSU bring together different scientific disciplines to address scientific issues of international relevance that are of interest to ICSU Members. Some of these bodies are co-sponsored with other organizations. Interdisciplinary Bodies as at 31 December 2012:

Thematic Bodies

Committee on Space Research (COSPAR)
Integrated Research on Disaster Risk (IRDR)
Programme on Ecosystem Change and Society (PECS)
Scientific Committee on Antarctic Research (SCAR)
Scientific Committee on Oceanic Research (SCOR)
Scientific Committee on Solar-Terrestrial Physics (SCOSTEP)
Urban Health

Global Environmental Change Programmes

DIVERSITAS: An International Programme of Biodiversity Science
Future Earth
International Geosphere-Biosphere Programme (IGBP)
International Human Dimensions Programme on Global Environmental Change (IHDP)
World Climate Research Programme (WCRP)

Monitoring/Observation Bodies

Global Climate Observing System (GCOS)
Global Ocean Observing System (GOOS)
Global Terrestrial Observing System (GTOS)

Data and Information Bodies

Committee on Data for Science and Technology (CODATA)
International Network for the Availability of Scientific Publications (INASP)
Scientific Committee on Frequency Allocations for Radio Astronomy and Space Science (IUCAF)
World Data System (WDS)

ICSU Scientific Unions

The 32 international Scientific Union Members provide the disciplinary backbone of ICSU. They play a central role in bringing together scientists from all parts of the world to consider the issues of particular interest to individual disciplines. Scientific Union Members as at 31 December 2012:

International Astronomical Union (IAU)
International Brain Research Organization (IBRO)
International Geographical Union (IGU)
International Mathematical Union (IMU)
International Union for QUaternary Research (INQUA)
International Sociological Association (ISA)
International Society for Photogrammetry and Remote Sensing (ISPRS)
International Union of Anthropological and Ethnological Sciences (IUAES)*
International Union of Biochemistry and Molecular Biology (IUBMB)
International Union of Biological Sciences (IUBS)
International Union of Crystallography (IUCr)
International Union of Food Science and Technology (IUFoST)
International Union of Forest Research Organizations (IUFRO)
International Union of Geodesy and Geophysics (IUGG)
International Union of Geological Sciences (IUGS)
International Union of History and Philosophy of Science (IUHPS)
International Union of Immunological Societies (IUIS)
International Union of Materials Research Societies (IUMRS)
International Union of Microbiological Societies (IUMS)
International Union of Nutritional Sciences (IUNS)
International Union for Pure and Applied Biophysics (IUPAB)
International Union of Pure and Applied Chemistry (IUPAC)
International Union of Pure and Applied Physics (IUPAP)
International Union for Physical and Engineering Sciences in Medicine (IUPESM)
International Union of Basic and Clinical Pharmacology (IUPHAR)
International Union of Physiological Sciences (IUPS)
International Union of Psychological Science (IUPsyS)
International Union of Soil Sciences (IUSS)
International Union of Theoretical and Applied Mechanics (IUTAM)
International Union of Toxicology (IUTOX)
Union Radio Scientifique Internationale (URSI)

*Observer as of 2012

ICSU Scientific Associates

Scientific Associates as at 31 December 2012:

- Academy of Sciences for the Developing World (TWAS)
- Academia de Ciencias de America Latina (ACAL)
- Federation of Asian Scientific Academies and Societies (FASAS)
- International Arctic Science Committee (IASC)
- International Association of Hydraulic Engineering and Research (IAHR)
- International Cartographic Association (ICA)
- International Commission for Acoustics (ICA)
- International Commission for Optics (ICO)
- International Council for Industrial and Applied Mathematics (ICIAM)
- International Council for Laboratory Animal Science (ICLAS)
- International Council for Scientific and Technical Information (ICSTI)
- International Federation for Information Processing (IFIP)
- International Federation of Library Associations and Institutions (IFLA)
- International Federation of Societies for Microscopy (IFSM)
- International Federation of Surveyors (FIG)
- International Foundation for Science (IFS)
- International Institute for Applied Systems Analysis (IIASA)
- International Union for Vacuum Science, Technique and Applications (IUVSTA)
- International Water Association (IWA)
- Pacific Science Association (PSA)
- Society for Social Studies of Science (4S)
- Union Internationale de Spéléologie (UIS)

ICSU National Members

National Members at 31 December 2012:

- * National Associate
- ** National Observer

Members from Latin America and the Caribbean are highlighted.

- Albania • Academy of Sciences
- Angola • Foundation of Science and Development
- Argentina • National Scientific and Technological Research Council. (CONICET)
- Armenia • National Academy of Sciences of the Republic of Armenia
- Australia • Australian Academy of Science
- Austria • Die Österreichische Akademie der Wissenschaften
- Azerbaijan • Azerbaijan National Academy of Sciences**
- Bangladesh • Bangladesh Academy of Sciences
- Belarus • National Academy of Sciences (NASB)**
- Belgium • Royal Academies for Science and the Arts of Belgium (RASAB)
- Bolivia • Academia Nacional de Ciencias de Bolivia (ANCB)**
- Bosnia & Herzegovina: ANUBiH • Academy of Sciences and Arts of Bosnia and Herzegovina
- Bosnia & Herzegovina: ANURS • Academy of Sciences and Arts of the Republic of Srpska
- Botswana • Academy of Sciences and Arts of the Republic of Srpska
- Brazil • Academia Brasileira de Ciências (ABC)
- Bulgaria • Bulgarian Academy of Sciences (BAS)
- Burkina Faso • Centre National de la Recherche Scientifique et Technologique**
- Cameroon • Cameroon Academy of Sciences
- Canada • National Research Council of Canada
- Caribbean • Caribbean Academy of Sciences (CAS)*¹
- Chile • Academia Chilena de Ciencias
- China: CAST • China Association for Science and Technology (CAST)
- China: Taipei • Academy of Sciences located in Taipei

¹ Covering the following: Antigua and Barbuda, Bahamas, Barbados, Dominica, Grenada, Guyana, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname, and Trinidad and Tobago.

Colombia • Academia Colombiana de Ciencias Exactas, Físicas y Naturales

Costa Rica • Academia Nacional de Ciencias

Côte d’Ivoire • Académie des Sciences, des Arts, des Cultures d’Afrique et des Diasporas Africaines (ASCAD)**

Cuba • Academia de Ciencias de Cuba

Czech Republic • Academy of Sciences of the Czech Republic

Denmark • Royal Danish Academy of Sciences and Letters

Dominican Republic • Academy of Sciences of the Dominican Republic

Egypt • Academy of Scientific Research and Technology (ASRT)

Estonia • Estonian Academy of Sciences

Ethiopia • Ethiopian Science and Technology Agency

Finland • Delegation of the Finnish Academies of Science and Letters

France • Académie des Sciences

Georgia • Georgian Academy of Sciences*

Germany • Deutsche Forschungsgemeinschaft (DFG)

Ghana • Ghana Academy of Arts & Sciences**

Greece • Academy of Athens

Guatemala • Academia de Ciencias Médicas Físicas y Naturales de Guatemala*

Hungary • Hungarian Academy of Sciences

India • Indian National Science Academy

Indonesia • Indonesian Institute of Sciences (LIPI)

Iran • University of Tehran

Iraq • Ministry of Science and Technology

Ireland • Royal Irish Academy

Israel • Israel Academy of Sciences and Humanities

Italy • Consiglio Nazionale delle Ricerche

Jamaica • Scientific Research Council

Japan • Science Council of Japan

Jordan • Royal Scientific Society*

Kazakhstan • National Academy of Sciences of the Republic of Kazakhstan*

Kenya • Kenya National Academy of Sciences

Korea Democratic People’s Republic of • State Academy of Sciences**

Korea, Republic of • National Academy of Sciences of the Republic of Korea

Lao PDR • Lao National Science Council**

Latvia • Latvian Academy of Sciences

Lebanon • National Council for Scientific Research

Lesotho • Department of Science and Technology

Lithuania • Lithuanian Academy of Sciences

Luxembourg • Fonds National de la Recherche

Macedonia, Former Yugoslav Rep. of • Macedonian Academy of Sciences and Arts

Madagascar • Ministère de l’Enseignement Supérieur et de la Recherche Scientifique*

Malawi • National Research Council of Malawi

Malaysia • Academy of Sciences Malaysia

Mauritius • Mauritius Research Council

Mexico • Academia Mexicana de Ciencias

Moldova • Academy of Sciences of Moldova

Monaco, Principauté de • Centre Scientifique de Monaco

Mongolia • Mongolian Academy of Sciences

Montenegro • Montenegrin Academy of Sciences and Arts

Morocco • Centre National de la Recherche Scientifique et Technique

Mozambique • Scientific Research Association of Mozambique (AICIMO)

Namibia • Ministry of Education: Directorate of Research, Science and Technology

Nepal • Royal Nepal Academy of Science and Technology

Netherlands • Koninklijke Nederlandse Akademie van Wetenschappen

New Zealand • Royal Society of New Zealand

Nigeria • Nigerian Academy of Science

Norway • Norwegian Academy of Sciences and Letters

Pakistan • Pakistan Association for the Advancement of Science

Panama • Universidad de Panama

Peru • Academia Nacional de Ciencias

Philippines • National Research Council

Poland • Russian Academy of Sciences

Portugal • Academia das Ciencias de Lisboa

Romania • Academia Româna

Russian Federation • Russian Academy of Sciences

Rwanda • Kigali Institute of Science and Technology (KIST), Rwanda**

Saudi Arabia Kingdom of • King Abdulaziz City for Science and Technology (KACST)

Senegal • Association des Chercheurs Sénégalais**

Serbia • Serbian Academy of Sciences and Arts

Seychelles • Seychelles Centre for Marine Research and Technology
Singapore • Singapore National Academy of Science
Slovak Republic • Slovak Academy of Sciences
Slovenia • Slovenian Academy of Sciences and Arts*
South Africa • National Research Foundation (NRF)
South Pacific • University of the South Pacific²
Spain • Ministerio de Ciencia y Innovacion
Sri Lanka • National Science Foundation
Sudan Republic of • National Centre for Research**
Swaziland • National Research Council**
Sweden • Royal Swedish Academy of Sciences
Switzerland • Swiss Academy of Sciences
Tajikistan • Academy of Sciences of the Republic of Tajikistan**
Tanzania • Tanzania Commission for S&T
Thailand • National Research Council of Thailand
Togo • Chancellerie des Universités du Togo
Tunisia • Université Tunis El Manar*
Turkey • Scientific and Technical Research Council of Turkey**
Uganda • Uganda National Council for Science and Technology (UNCST)
Ukraine • National Academy of Sciences
United Kingdom • Royal Society
USA • National Academy of Sciences
Uruguay** • Comisión Consejo Nacional de Innovación Ciencia y Tecnología (CONICYT)
Uzbekistan Republic of • Uzbekistan Academy of Sciences**
Vatican City State • Pontificia Academia Scientiarum**
Venezuela • Fondo Nacional de Ciencia, Tecnología e Innovación**
Vietnam • Vietnam Union of Science and Technology Associations**
Zambia • Zambia Academy of Sciences**
Zimbabwe • Research Council of Zimbabwe

² Covering the following: Cook Islands, Fiji, Kiribati, Marshall Islands Nauru, Niue, Solomon Islands, Tokelau, Tonga, Tuvalu, Vanuatu and Samoa.

CSU Regional Office