



Regional Office for Latin America and the Caribbean

Annual Report 2015

Strengthening international science
for the benefit of society



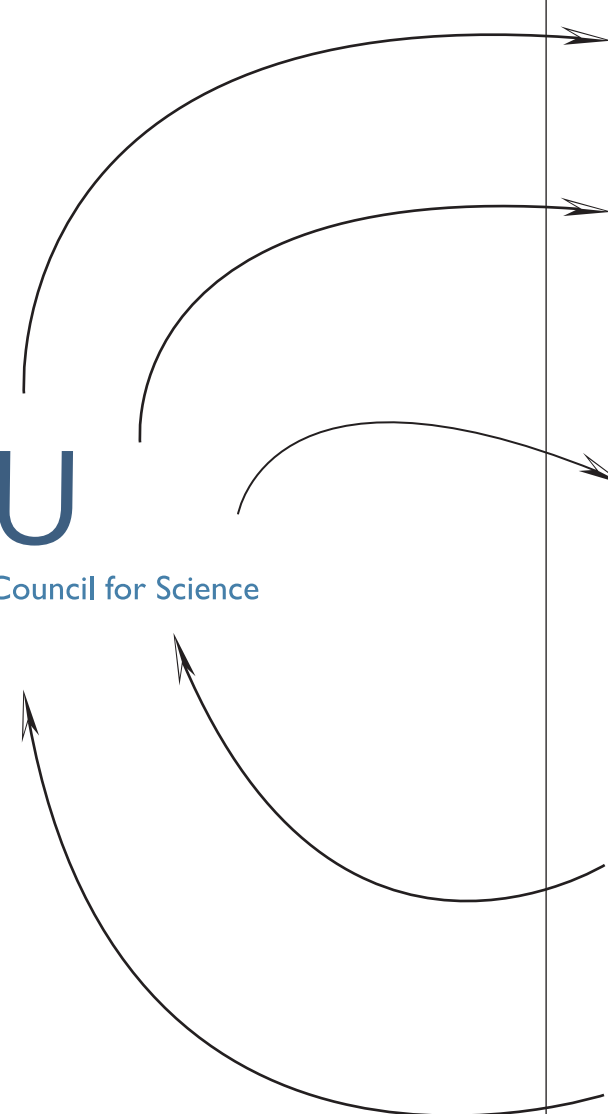
Vision:

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.



ICSU

International Council for Science



Promote and implement actions in line with ICSU's strategic priorities.

Assist ICSU in strengthening science and capacity building in developing countries through South-South and North-South collaboration.

Support integration of ICSU's regional and global activities.

Ensure that the views of the scientific communities in the regions are taken fully into account in the development of ICSU's strategic priorities.

Promote increased participation of developing country scientists and regional scientific organizations in the implementation of the ICSU Strategic Plan 2012-2017.



ICSU

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



Message from the Director of the Regional Office



2015 was a very special year for ICSU ROLAC. This has been a successful year in terms of the activities carried out towards a more sustainable future in the region. We participated and/or organized more than 20 different activities: outreach activities, steering committee meetings, conferences and other national and international fora. With these activities, we also joined the efforts to push forward the three ICSU pillars: science for policy, international research collaboration and universalization of science.

There was intensive work on ICSU ROLAC foresight and analysis of the role we are to play in the near future. One important activity for our Office was the evaluation done by a Review Panel set up by the CSPR (Committee on Scientific Planning and Review, ICSU) and the Mexican Academy of Sciences. We are very pleased with the report of this review (handed in on July). We find its suggestions appropriate and we are sure that the recommendations received will be very helpful for our office's future work.

We had a meeting with our Focal Points (April, Panamá). This meeting was a very good opportunity for sharing experiences and planning different activities among the countries of our region. The work on ICSU ROLAC priority areas continued. For the Mathematics Education priority area 2015 was a good year: a new book was published and a new project about standards for the training of teachers was launched (August, Honduras). The Steering Committee on Sustainable Energy prepared a policy brief as a contribution for ICSU's position on global climate change on the way to the UNCCC COP21. The work on the Disaster Risk Reduction front continued: three members of our Steering Committee participated in the Third UN World Conference on Disaster Risk Reduction (March, Sendai, Japan) and a lot of work was carried out through online meetings. Finally, regarding our Biodiversity priority area, a number of negotiations and activities were carried out behind the scenes as new events and activities are being prepared for 2016.

Other important issue on this year was the negotiations carried out in order to ensure a new venue for the Regional Office and a smooth transfer of it. Our office will move mid-2016 and we finish 2015 very pleased with the accomplishments and the progress achieved on this matter. As this Report was being prepared we received confirmation that it will be El Salvador the new country hosting ICSU ROLAC. We thank the Vice Ministry of Science and Technology of El Salvador for their interest and hospitality and we look forward to the new collaborative opportunities that will arise in the following years.

The last words of this message are dedicated to the Mexican CONACYT and to the Mexican Academy of Sciences. They all deserve our deepest appreciation and gratefulness for all their generous support during all these years. We are also very grateful to the last three presidents of the Mexican Academy of Sciences as they all have been fundamental for the successful permanence of our office during the last five years. To all of them thanks a lot!

Manuel Limonta
Director of the Regional Office

Message from the Chair of the Regional Committee

This report will be the last one during the period of work in Mexico. ICSU ROLAC began its activities in Mexico in 2011 and they will end in mid-2016.

For the Regional Committee these five years have been of a significant work towards achieving ICSU's objectives. The Regional Committee members have participated in different meetings, workshops and other activities as part of the work undertaken so as to fulfill the objectives of the Regional Office.

There are important events to highlight in the year 2015. One of the most important ones was the Review of ICSU ROLAC by the CSPR (Committee on Scientific Planning and Review of the International Council of Science) and the Mexican Academy of Sciences Panel, which concluded with positive results for the Office. On this evaluation several members of the Regional Committee were interviewed. There are key recommendations for the work carried out by ICSU ROLAC, which we are already dealing with and that we consider as fundamental for the continuity and success of the objectives established for our Regional Committee. The implementation of these recommendations is part of the work that will be undertaken in the first six months of 2016, whilst the office is still in Mexico, and that will continue afterwards, when the office moves to its new venue.

The transfer of the ICSU ROLAC office in mid-2016 is a challenge for the Regional Committee: some of its members will finish their term and will have to be replaced, and the composition of the ICSU ROLAC staff might also be affected with the move.

During the next stage of ICSU ROLAC, our Committee will continue its work in guiding a new set of projections on the current priority areas in order to increase their alignment with the Future Earth program. Therefore, the work being carried out on disaster risk reduction, sustainable energy and biodiversity will continue moving forward and in accordance with current global sustainability issues. Another important challenge is the incorporation of the Urban Health program, an increase on the activities related to Open Data as well as a closer collaboration with CODATA.

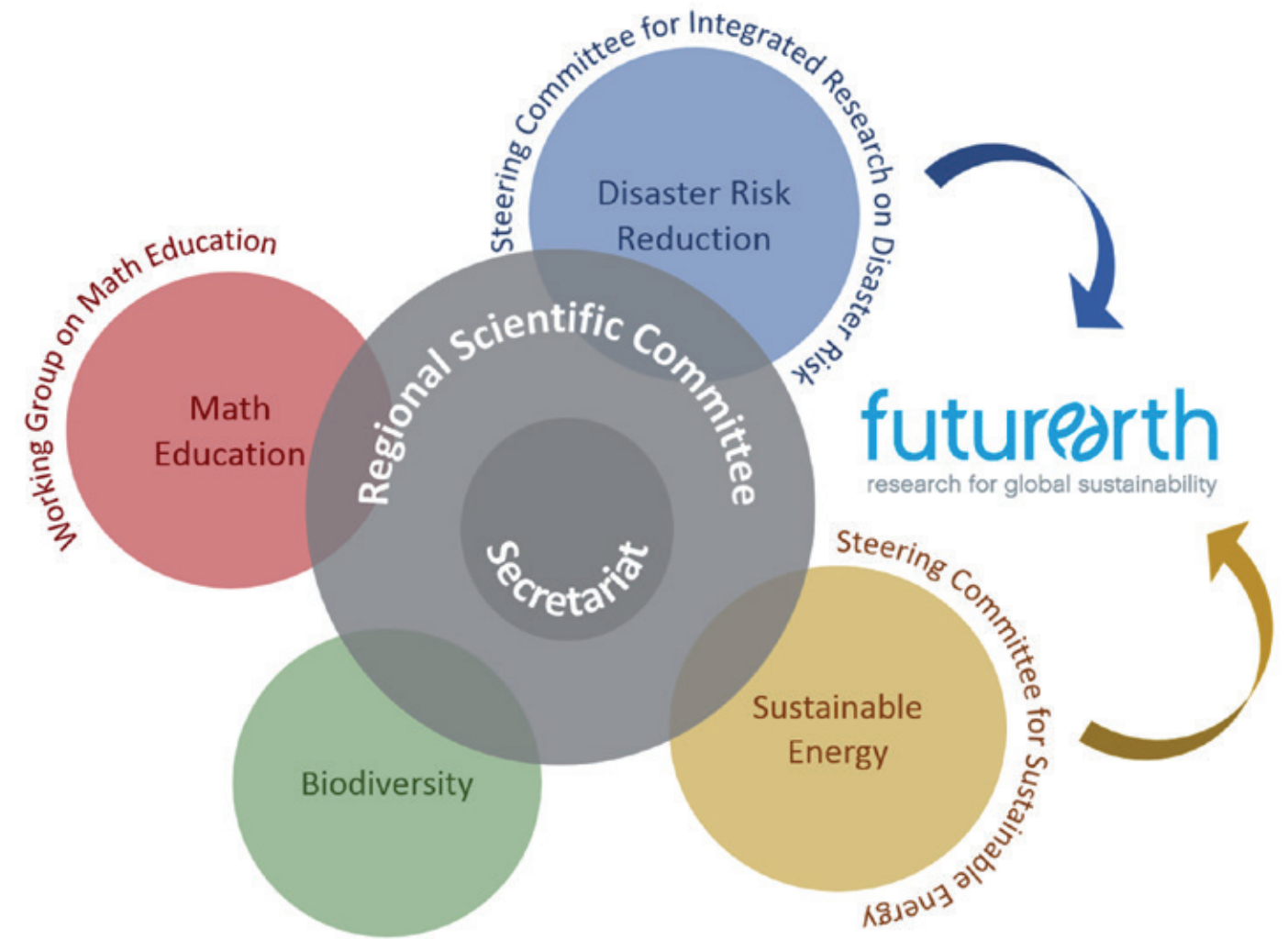
The Regional Committee acknowledges the leadership of the Regional Office, the generous support of the National Council of Science and Technology (CONACYT) of Mexico, and the Mexican Academy of Sciences.

José Luis Morán-López
Chair of the Regional Committee



Scientific Priority Areas

Disaster Risk Reduction
Sustainable Energy
Mathematics Education



Disaster Risk Reduction



Barbara Carby

The highlight of 2015 for the global Disaster Risk Reduction (DRR) community was undoubtedly the World Conference convened in Sendai, Japan in March. After much negotiation the Sendai Framework on DRR was adopted on the final day of the conference March 18, 2015. ICSU and its ROLAC DRR committee had been deeply involved in efforts to ensure the integration of science in the framework – an effort which was ultimately successful as science is interwoven in multiple paragraphs.

The OLAC DRR Committee was represented at Sendai by three members, two of whom made contributions to the programme. At a special session devoted to the Role of Higher Education Institutions (HEIs) in Disaster Risk Reduction, a presentation on the “Identification of existing advances and linkages of the scientific and academic community initiatives with Disaster Risk Reduction (DRR) in Latin-America and the Caribbean (LAC)” was jointly prepared by I. Alcántara-Ayala and B. Carby, and pre-



At the WCDRR, 2015.



and an initial meeting was convened at which the idea was further discussed. A decision was taken to try to build the network across Africa, Asia, LAC and the Pacific regions. Peri Peri University will coordinate efforts in this regard.

A presentation on the advances of the version 2.0 of Forensic Investigations of Disasters (FORIN) was presented by A. Oliver-Smith and I. Alcántara-Ayala during the session on integrated research. This generated a high level of interest by colleagues from different parts of the world and networking on the need of understanding the root causes of disasters and the FORIN perspective was enhanced.

The results of the study “Identification of existing advances and linkages of the scientific and academic community initiatives with Disaster Risk Reduction (DRR) in Latin-America and the Caribbean (LAC)” which was completed during the first quarter, indicate the need for greater integration of research on DRR into national DRR programmes with greater interlinkages among scientists, researchers, policy makers and DRR practitioners. The report will help to inform the committee’s 2016 work programme which should see committee members promoting integrated research which is responsive to national DRR needs and which includes the DRR and policy communities.

The 2016 work programme will be developed within the context of the Sendai agreement which emphasizes preventing creation of new risk, reduction of existing risk and the need for understanding of disaster risk in all its dimensions. Within and among the countries of LAC there will be the potential to collaborate on integrated and cross-border research

sented by B. Carby. It was well received by the audience. In the discussions which followed the panel the idea of a network of universities was mooted,

Chair								Vice-Chair
	Barbara Carby	Patricia Alvarado						
Observers								
			Germán Poveda	Allan Lavell	Irasema Alcántara	José Rubiera	Gabriel Vargas	
								
Sálvano Briseño IRDR	Jonathan Baker UNESCO	Raúl Salazar UNISDR	Arturo Martínez	José Luis Morán-López	Manuel Limonta	Ángela Guzmán until May	Guillermina Echeverría since October	

Steering Committee on Disaster Risk Reduction

projects which help to achieve some of the goals articulated in the Sendai Framework. There is also the opportunity to deepen the integration of DRR in curricula of institutions of higher education, particularly at the undergraduate level where much of the formation of DRR practitioners takes place, as the composition of the committee was reviewed during 2015 and a decision was taken to invite representation from Brazil as well as the network of universities of Latin America and the Caribbean. In addition, the committee decided to establish links into the DRR practitioners community starting with initial discussions with CENAPRED in Mexico, as well as with regional organisations such as the Association of Caribbean States (ACS) and the Cuauhtémoc Forum.

The Sendai Framework explicitly defines sustainable development as the context within which DRR takes place, and highlights the importance of resilience to nation building. Fur-

ther it recognises the need for coherence across the development, climate change and DRR agendas. This framing of DRR at the global level supports the concept of an integrated and interdisciplinary approach to DRR research promoted by ICSU under its IRDR programme; and, importantly, it also includes the development and finance/business communities – potentially broadening the DRR research dialogue to include disciplines such as economics.

The ICSU ROLAC DRR committee will during 2016 continue to promote integrated research even as it seeks to develop more partnerships with DRR networks across the Latin American and Caribbean region.

Barbara Carby PhD

Chairperson

Steering Committee on Disaster Risk Reduction

Sustainable Energy



Decio Luiz Gazzoni

Workshop of ICSU focal points in Latin America and the Caribbean, Panama City, Panama (March 9-11, 2015)

The participation of the Chair of the Steering Committee on Sustainable Energy aimed at integrating and promoting cooperation and exchange of experiences in the Renewable Energy area, addressing

the following topics: a) review the actions already taken by ICSU, with respect to RD & I in renewable energy, taking into account the regional and global politics, to identify the ICSU niche; b) having identified the niche, define the conceptual framework, criteria, processes and partners to effectively contribute in the area.

To accomplish the goals, the event consisted of a keynote speech, delivered by us followed by group sessions to develop the following topics: a) set the international context in sustainable energy; b) how to increase the ability to address the challenges of renewable energy: the regional and global role of ICSU, c) Identify opportunities for inter-regional cooperation on sustainable energy.

The main decisions taken at the event were: a) deepen the actions of RD & I and educational with the support of regional and global partners; b) support actions in lagging regions, particularly Africa and Southeast Asia, c) engage the lead in renewable energy in the Future Earth platform, d) to hold a preparatory workshop to prepare the position of ICSU to be held in cop21 the IPCC.

Document: On the way to the UNCCC COP 21

A group of 16 scientists, including several members of the Steering Committee on Sustainable Energy, prepared a document as ICSU ROLAC contribution for ICSU's position on Global

Climate Change on the way to the UNCCC COP 21, held in Paris, 2015. Here the "Executive Summary" of the document:

Global Climate Changes means modifications in the pattern of temperature, precipitation, sea level, and the frequency and severity of extreme events. The changes will likely affect how much energy is produced, delivered, and consumed, which might turn a vicious system, if patterns of energy generation (more renewables in the energy matrix) and use (more energy efficiency) are not achieved.

According to IEA (2015), from 1973 to 2012 the world increased its energy consumption from 6,106 Mtoe to 13,371 Mtoe (119% or 2.03% a year). In 1973, 86.7% of the world energy matrix was composed of fossil fuels, while 10.6 came from renewable sources and 0.9 from nuclear power plants. In 2012 the fossil sources reduced its share to 81.7%, and the renewables increased to 13.5%, while the nuclear generation jumped to 4.8%. During the same period, the Latin America and the Caribbean (LAC) region increased its share on the world energy matrix from 3.6 to 5.2%.

IPCC scientists state that there is no way of mitigating or reducing the impact of Global Climate Changes without increasing the share of renewables sources on the Global Energy Matrix, meaning a contribution of each country and each region for the whole target. Taking advantage of the abundant availability of several natural resources (biomass, wind, solar radiation, geothermic wells, etc.), Latin America and the Caribbean can largely help to achieve an eventual multilateral commitment arising from the COP 21, aiming to a sustainable future.

To tackle this mission, it will be paramount to invest in education, to create a consciousness among the consumers for both a) saving energy; b) pursue energy efficiency; c) prefer renewable energy sources. Technological innovation will be extremely important to find solutions for present challenges of getting large amounts of energy on a sustainable and con-

tinuous base, with competitive costs with traditional sources. Policy makers will be responsible to set the foundations and the background for the proposed scenery, creating and implementing public policies to support a permanent increasing on generation, distribution and use of renewable energy in the LAC region.

Consultancy to the Government of Ecuador, to prepare the Strategic Planning for the National Institute of Renewable Energy (INER) (November, 2015)

On November 2015 and on behalf of ICSU ROLAC, the Chairperson of the SCSE attended a workshop held in Quito, Ecuador, in order to prepare the Strategic Planning for the National Institute of Renewable Energy (INER). The workshop was sponsored by the Ministry of Science and Technology in Ecuador and brought together international experts in strategic planning (PE), scientists from institutes C & T of Ecuador, Ecuadorian university professors and representatives from governmental agencies.

Weaknesses were identified that strongly undertake INER activities, with emphasis on two crucial aspects: external regulations and bureaucracy (internal and external) that prevent the expression of the potential to generate innovations. It was strongly recommended that the INER should be freed of bureaucratic and legal obstacles, otherwise it will not fulfill its institutional mission, remembering that S & T management theory points out a strong inverse association between bureaucracy and controls with creativity and productivity.

On the technical aspect, were considered as "background" EP the Government of Ecuador's policy directive, based on the Program "Buen Vivir"; and the expectation of a binding agreement to stem from COP 21 (Climate Conference, Paris, December 2015), which will require clear targets for reducing greenhouse gases in each country. To define the main lines of RD & I, were considered the more competitive renewable energy sources for Ecuador, such as biomass, wind, solar and micro hydro generation.

Decio Luiz Gazzoni
Chairperson
Steering Committee on Sustainable Energy



The Paris Agreement on climate change and its potential consequences for Latin America



Gabriel Blanco

The agreement reached last December in Paris during the 21st meeting of the Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC) is the result of long years of negotiations among more than 190 countries — including developed, developing and least developed countries — that eventually understood that climate change is a common, global problem and re-

alized the urgent need to address it as such; that is with the full participation of all countries, taking into account their own responsibilities, current national circumstances and capabilities.

Even though this outcome of the Paris meeting is promising, the Paris Agreement falls short in several aspects to be considered the final stage in the negotiations. In the first place, countries decided to take a bottom-up approach

to establish the amount of greenhouse gas (GHG) emissions to be reduced in the coming years. This approach meant that each country decided and submitted to the UNFCCC its own target (or so-called “contribution”) in terms of GHG emissions reductions according to its own assessment of the situation and capabilities to deal with it. The adding up of all these contributions from countries does not even reach half of the GHG reductions needed to keep the global mean tempera-



ture rise below 2°C by the end of this century with respect to preindustrial levels, the temperature increase that may keep us all in the safe side with respect to the impacts of climate change according to the 5th Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) released in 2014. This same report, however, indicates that 2°C could also lead to irreversible and unpredictable changes in natural and

human ecosystems and, therefore, a maximum global mean temperature increase of 1.5°C is more desirable. With the contributions submitted by countries in Paris, the world would be heading towards a temperature increase of approximately 4°C.

Secondly, the long standing negotiation about the support that developed countries should provide to developing countries to be able to reduce GHG emis-





sions and to adapt to the existing changes in the climate system is not over yet. This support - including technological and financial support – was agreed by the time the UNFCCC was established back in 1992 but never fulfilled. Even though in the final text of the Paris Agreement there are certain provisions for this support to be delivered, there is no explicit reference on the amount and the instruments to be implemented to channel such a support.

These two fundamental aspects will require further negotiations among countries; in fact, the agreement has established arrangements for reviewing the level of ambition in terms of GHG emission reductions

in few years from now based on new scientific reports, in particular from the IPCC. The technological and financial support will also need further negotiations in the coming years. In this regard, the Paris Agreement can be seen as the new framework where these negotiations will take place, a framework where there no longer are active and passive countries but each one playing its part.

Some may see this new framework as somewhat unfair since the outstanding differences in historical responsibilities among countries regarding climate change. Although this is true, for countries that have little or no historical responsibilities, full engagement in this process can provide an opportunity to move away from a business-as-usual development pathway based on the production and consumption of goods and services powered by fossil fuels and the extraction of natural resources. This is the case for many countries in Latin America that are currently following this approach for their economic and social development that proved to have created not only social inequalities between and within countries, but also en-

vironmental damages that stress those social inequalities even further since environmental pollution and the adverse impacts of climate change hit harder on the poorest and most vulnerable populations.

Thus, for Latin America, the Paris Agreement can be seen as the opportunity to move towards a more sustainable development pathway. One based on investments focusing on the efficiency in the use of natural resources, as well as on renewable energy, clean technology, green business, circular economy, climate adaptation and ecosystem enhancement. In this scenario cooperative research, development and innovation (RD & I) has a fundamental role to play. Co-operative RD & I activities between countries not only promotes cross border movements of skilled scientists, technicians and workers exchanging know-how and experiences, but also supports the demonstration of new technologies, a key stage of the technology cycle. In addition, cooperative RD & I could lead to the creation of new private enterprises and public-private joint ventures.

In a sustainable development pathway, a right balance between consumption and investment in the economy has to be achieved. Some investments in renewable energy, for instance, will bring competitive returns under some market conditions; others, however, will only bring returns over much longer timeframes

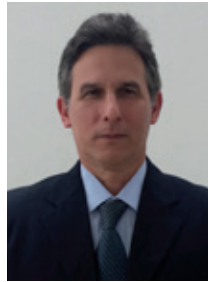
than traditional financial markets expect. This longer-term investments in infrastructure and public goods will have to be evaluated against different criteria that integrate economic, social and environmental aspects in a healthy equilibrium. This, in turn, is another area where further research is needed.

In summary, the political momentum created by the Paris Agreement gives countries in the region the possibility to look at climate change not only as a threat but also as an opportunity to redefine the meaning of prosperity and work towards a truthful sustainable development of societies and individuals in Latin America and the world as a whole.

*Gabriel Blanco,
UNCPBA, Argentina*



Mathematics Education



Camilo García

The ICSU Regional Office for Latin America and the Caribbean has a unique priority area among the ICSU family: “Mathematics Education.” This important priority is widely recognized as essential to scientific capacity building in the region.

We strongly believe that any scientific development requires mathematical basis and that the involvement of all citizens in the progress of their countries, requires management knowledge and ways of thinking that mathematics provide.

In our region, the results of the international mathematics tests such as PISA, TIMSS and TERCE show low performance of school students in this important area of knowledge. These results will have strong negative impacts in our economic and human development for the future years.

2015 has been another intensive year for this priority area. The establishment and dissemination of ideas about the need for change in educational policies regarding school mathematics has been on the ground of all promoted activities. Two main workshops were organized and carried out by ICSU ROLAC during 2015, the “Workshops on Mathematics Education in Latin America and the Caribbean”, held in Havana, Cuba (5-6 January 2015) and Tegucigalpa, Honduras (3-4 August 2015). The next and fifth Workshop of this kind is planned to be held in Santo Domingo, Dominican Republic, March 2016. Together with these workshops, the publication of a book aimed to reach the regional authorities on public policies about mathematics education was completed during the year.

1. Science for Policy. High level meetings of Educational Authorities of the LAC Region.

The meetings in Havana and Tegucigalpa have been attended by experts and authorities of 10 countries. The main general impacts pursued by ICSU ROLAC are: Promoting local and

international relationships through interaction between researchers, teachers, students and other professionals from different agencies and institutions, by disseminating experiences, processes and development of innovative educational projects, and spreading successful results of training projects in the area of basic math of countries in the region; and also promoting the exchange of ideas, experiences, knowledge and actions for finding solutions to the current crisis in education in general and mathematics education in particular, at different educational levels.

We have found a wide acceptance among the educational authorities of the Region to the following postulates: 1) The teaching of mathematics is a strategic factor to boost the development of the region; 2) The main difficulties that countries face in the teaching of mathematics are common and that every country should share their experiences.

One of the main outcomes of the discussions with and between governmental authorities, experts and academics has been to favor public policies aimed to improve the quality of teaching of mathematics, and specifically the commitment of various countries from Central America to promote the identification of essential contents, that should be known by graduates of teacher training careers at different levels.

2. Standards for the Initial Formation of Mathematics Teachers.

During 2015 ICSU ROLAC, supported by The ICSU Regional Committee for Latin America and the Caribbean has and will keep concentrating its efforts in promoting the study and establishment of standards for mathematics teaching at the elementary level, taking into account the positive results of the Chilean experience in this field. This issue will have again an important weight in the next workshop in Dominican Republic in March 2016.

In this context, the National Academy of Sciences of Honduras showed the interest of making Honduras the first country in Central America and the Caribbean to start a process

for the study and implementation of these standards. This process in Honduras will be supported with the advice of the Center for Mathematical Modeling of the University of Chile, and under the leadership of the National Academy of Sciences of Honduras and the University José Cecilio del Valle. The project was presented to the National Pedagogical University Francisco Morazán and the Ministry of Education of Honduras.

Our mid-term goal is to promote the establishment of common standards to the Central American and Caribbean Region for mathematics teaching at the elementary level.

3. Capacity building. Workshops on “Problem solving”

With the aim of building capacities for the local community of mathematic teachers, two Workshops on Problem solving were held as integral and important part of the meetings in Havana and Tegucigalpa. We have reached an audience of about 400 participants to the Workshops, included active and pre-service mathematic teachers, professors of mathematics in pedagogical universities, mathematicians and educational authorities.

Problem solving is an important vehicle for educating students for life by promoting interest, developing common sense and the power to discriminate. In particular, it is an approach which encourages flexibility, the ability to respond to unexpected situations or situations that do not have an immediate solution, and helps to develop perseverance in the face of failure.

Individuals need to be able to think for themselves in a constantly changing environment. Teaching mathematics encompasses skills and functions which are a part of everyday life, such simple as reading a map to find directions, understanding weather reports, economic indicators, loan repayments, among many others.

4. Disseminating Good Practices among educational authorities in the Region.

Another important activity in 2015 was the publishing of the book: “Mathematics Education: A reality to be transformed in

Latin America and the Caribbean, a proposal from ICSU ROLAC to Educational Authorities in the LAC Region.” The main content of the book is a group of recommendations from ICSU ROLAC to educational authorities in the region on best practices and actions needed to improve the quality of education in mathematics, as well as examples of successful actions by several countries in Latin America.

The book was written by the experts Lilliam Alvarez from Cuba and Patricio Felmer from Chile; both members of the Regional Committee for Latin America of ICSU. The edition was coordinated by Camilo García, at ICSU ROLAC. Both Spanish and English versions have been released 2015.

The Book has been very welcomed by the Education Authorities of our Region.

During 2015, ICSU ROLAC has been working on a project in cooperation with the Inter-American Development Bank (IDB) to financially support the process for mathematic teaching standards in Honduras and El Salvador.

The performance of the ICSU Regional Office in this priority area would not have been possible without the permanent, competent and devoted advice of the members of the ICSU Regional Committee, Dr. Lilliam Alvarez, from the Cuban Academy of Sciences; and Prof. Patricio Felmer from the University of Chile. Many thanks for their hard work and support.

May 2015, the work of our Regional Office was reviewed by a Panel appointed by ICSU Headquarters and the Mexican Academy of Sciences. As result of this review, the following comments were made:

“Of the four priority areas, the Review Panel considers that mathematics education seems to have the best understanding where it is heading. A number of capacity building activities on mathematics teaching took place, including meetings with teachers and publication of books. This priority area seems to be well steered by some of the Regional Committee members.”

Camilo García

Administrative Officer, ICSU ROLAC

ICSU ROLAC coordinator of the Mathematics Education Priority Area

Towards a Sustainable Future

2015 was an important year in terms of the steps taken towards a sustainable world, as there were at least three international summits related to it. First, in March 14-18 governments met at the 3rd UN World Conference on Disaster Risk Reduction (WCDRR) in Sendai, Japan in order to agree on targets to lower global mortality and economic losses from disasters. As a result, the Sendai Framework for Disaster Risk Reduction was adopted. This 15 year plan will replace the Hyogo Framework for action 2005-2015.

The new agreement is fundamental in order to strengthen the resilience of communities and countries exposed to disasters, many of which are worsened by climate change. The Sendai Framework also



highlights the role of science in the understanding of disaster risk and makes a strong call to emphasize its participation in policy and decision making.

ICSU contributed as organizing partner of the Science and Technology Major Group which brought together a diverse group of nearly 400 delegates from around the world. Barbara Carby, Patricia Alvarado and Irasema Alcántara participated in the WCDRR on behalf of ICSU ROLAC.

Then, on September 25- 27, more than 150 world leaders gathered at the United Nations Sustainable Development Summit in New York, USA. There, the 2030 Agenda for Sustainable Development was adopted, including the Sustainable Development Goals (SDGs) that, building on the Millenium Development Goals (MDGs), are aiming higher than their predecessors.

The SDGs involved a large consultation on what they should consider, including a working group with representatives from 70 countries and a series of consultations where ordinary citizens across the globe provided input through a series of “global conversations”. A lot of work was also carried out regarding the ways in which the SDGs could be measured.

ICSU contributed in a number of ways to ensure timely and relevant scientific input into the process. One of these was the publication, in partnership with the International Social Science Council, of an

independent review of the 169 targets under the 17 goals.

Then, the end of 2015 saw the much awaited Paris summit: the United Nations Framework Convention on Climate Change (UNFCCC); 21st Conference of Parties (COP21) from 30 November to 12 December. There, more than 190 countries adopted the Paris agreement that aims at reducing global greenhouse gas emissions and holding global temperatures to a maximum rise of 1.5 C above pre-industrial levels in order to avoid the threat of catastrophic and irreversible global warming. Furthermore, although it is not completely legally binding, the Paris agreement includes a review mechanism every five years in order to monitor each countries’ progress.

ICSU was present at this important event via a wide range of fora and activities such as staffing a booth in the observers section (along with its partners the ISSC, Future Earth, and the Stockholm Resilience Centre), sending regular e-mails to scientists on the highlights at and around the event, and organizing (along with the Future Earth Media Lab) a virtual reality hackathon on climate change communication. Moreover, right before the Paris agreement was released; ICSU co-organized a key press conference with leading international climate scientists on two of the critical components of the agreement. The information shared at this press conference provided



the grounds for many stories that appeared in print, broadcast and online media around the world.

ICSU ROLAC, along with its Steering Committee on Sustainable Energy, coordinated a policy brief as a regional contribution for ICSU’s position on global climate change on the way to UNCCC COP21.

The three frameworks relate to each other. They all relate to extreme weather in one way or another, and the SDGs and the Paris agreement complement each other in areas such as renewable energy, climate action, emission reduction, reduced inequalities and economic growth. Tackling climate change will help us to achieve the SDGs and vice versa. As the UN chief has said “sustainable development and climate change are two sides of the same coin, with two mutually reinforcing agendas”.

ICSU ROLAC and Young Scientists

Early-Career Scientists

The International Conference and General Meeting is the annual key event of the Global Young Academy (GYA) and its main meeting in which the members can work together on the goals of this global organization. This year,

it took place at the Hotel Château Montebello in Montebello, Canada from 24 to 29 May 2015. The theme of this Conference was 'Innovation for Sustainable Globalization'.

The participants included around 100 young scientists GYA members and guests among which was ICSU. Gor-



YoungScientists-Participants in the International Conference and General Meeting of the GYA



don McBean, President of ICSU, presented a keynote on Future Earth followed by a panel discussion with GYA members Abdeslam Badre, Kiki Jenkins and Sabina Leonelli, moderated by Robert Leckey on the role of ICSU and Future Earth and the space for early-career scientists within these organizations. Afterwards, he held a closed-door meeting with the co-chairs Eva Alisic and Sameh Soror and Heide Wedel, Executive Director of the GYA.

ICSU ROLAC Communications Officer, Angélica Bucio, participated in this Assembly in representation of

the International Council for Science with the aim of looking for collaborations between ICSU and the GYA and for gathering ideas for the Early-Career Scientists strategy of ICSU.

In short, the main outcomes of the meeting for ICSU were: 1) the establishment of a valuable network of early-career scientists around the world, 2) identification of future collaborations, 3) the positioning of ICSU within the young scientist community, 4) the starting point of the development of a network of young scientists in Latin America and the Caribbean 5) development of a document for the strategy of ICSU for early-career scientists.



About the ICSU Grants Programme

The ICSU Grants Programme supports collaborative scientific initiatives of relevance to science and society through seed grants that are often used to leverage funds from other sources. It is a competitive, peer-reviewed programme for ICSU Scientific Unions, Interdisciplinary Bodies, and Joint Initiatives in collaboration with other ICSU bodies including Regional Offices.

Focus on the themes of the ICSU Strategic Plan 2012-2017 and are international and multi-disciplinary.

Involve scientists across disciplines and national borders.

Promote the involvement of young scientists, women scientists, and scientists from developing countries.

Address the strategic priorities of the ICSU Regional Offices.

ICSU ROLAC endorses proposals intended to contribute to the advancement of its Science Plans in priority areas for the LAC region.

Four projects were awarded under the 2015 Grants Programme for a total amount of 111,000€.

Lead Applicant	Supporting Applicant(s)	Regional Office(s)	Title of Proposal
IMU	IUBS, IUIS, ICIAM, ISSC, Future Earth ecohealth	ROA	Global change impact on diseases and alien species expansion
IUCr	ECA, UNESCO, SAASTA, ROA	ROA	Building Science Capacity in Africa via Crystallography
IUGS	IAU, IGU, INQUA, ISPRS, IUGG, IUSS, URSI	–	Resourcing Future Generations
IUPAC	US NAS, UNESCO, IUPAP (tbc)	ROAP	Accelerating participation and leadership of women in chemistry

IMU: Global change impact on diseases and alien species expansion

The project is to hold an international, interdisciplinary, capacity building workshop “Global change impact on diseases and alien species expansion”. The workshop will address the whole range of topics from field work and collecting of data to the building and validating of models through data assimilation, to the adjustment of mod-

els in changing environment and to the design and implementation of strategies to fight infectious diseases and invasive species. The activities (mini-courses in the morning and working groups in the afternoon) will be organized around three themes:

- 1) Epidemic diseases in the context of changing environment;
- 2) Invasive species in the context of changing environment;
- 3) Socioeconomic adaptation to

new epidemic diseases and invasive species.

Special emphasis will be put on African diseases and invasive species, as well as the characteristics of changing environment in Africa. Bringing together the two subjects of infectious diseases and invasive species will allow cross-fertilization of the two fields by sharing the approaches and methods used for the two contexts.

The socio-economic component goes in two directions:

i) how expertise from practitioners in the field helps including the right ingredients (including the social organization, education, etc.) in the models;

ii) how the models can help build- ing “optimal” strategies to prevent and fight infectious diseases and alien species, which are well adapted to the sociological context of a given society. The primary goal of the capacity build- ing workshop is the training of young researchers from several countries of Africa. Another expected result in- cludes creating a network researchers with the long term goal of sharing in- formation on sources, pathways of dis- tribution, vectors (mode of spread) and biological traits of dangerous causative agent of infection (viruses, bacteria) and invasive species.

Finally, the meeting will also devel- op and teach quantitative methods for monitoring, simulating, and assessing risk for infectious diseases and inva- sive species under climate change.

IUCr: Building Science Capacity in Africa via Crystallography

The Steering Committee for the Afri- can Crystallographic Association es- tablished at the Pan African Summit and Meeting of the International Year of Crystallography in Bloemfontein, October 2014, will ensure that AfCA be further cemented by three meetings in Africa consisting of :

(i) A follow-up meeting to the Sum- mit in 2014 preferentially in Northern Africa during middle 2015, to further work towards the formal formation of AfCA;

(ii) A Workshop in Central Africa in the latter part of 2015, preferably in the Democratic Republic of Congo to of- fer local scientists the opportunity to interact, liaise, and strengthen basic knowledge of crystallography;

(iii) Bring African scientists to the INDABA series of conferences in South Africa (latter part of 2015) to ex- pose them to high level International interdisciplinary science.

IUGS: Resourcing Future Generations

Resourcing Future Generations (RFG) is an IUGS initiative aimed at meeting the multigenerational needs for raw materials, energy, water and land use while ensuring social equity. To do that requires four fundamental actions by the geoscience community:

1. Comprehensive evaluation and quantification of 21st century supply and demand;
2. Enhanced understanding of the subsurface as it relates to resource deposits;
3. Assessment of where new re- sources are likely to be found; and
4. Building needed and advanced skills capacity, particularly in develop- ing nations, to discover and responsi- bly develop mineral resources.

The broad concept is that RFG will last about a decade and be an umbrella activity under which a range of new ac- tivities related to securing the raw ma-

terials, energy and water resources as well as mitigating land use required by future generations can be developed, coordinated and funded. It will provide a bridge between industry, academia and national geological surveys, and other Unions within ICSU. An objective of RFG is that it will act as an interna- tional ‘honest broker’ role, bringing together interested parties to improve the ability of low income nations to advance through creating world-class and regionally self-sufficient natural resources based industries, while en- hancing the positive perception of re- source production activities.

This proposal shall bring together specialist with geoscientific and socio- economic background to discuss and prepare implementation for the long term endeavors of finding deep seated resources and the changes in educa- tion needed to sustainably exploit the planet when interests of land use, water and energy needs of a burgeon population conflict with resources.

IUPAC: Accelerating participation and leadership of women in chemistry

In 2011, as part of the International Year of Chemistry, the International Union of Pure and Applied Chemistry (IUPAC) recognized 24 of the leading women in chemistry from across the world with the “Distinguished Women in Chemis- try or Chemical Engineering Award” at its biennial IUPAC World Congress held in Puerto Rico, honoring the women chemists with both the award and a symposium. Because of the impact of the award and the importance in provid- ing women chemists with international recognition, in 2013, 12 additional wom- en were honored with the award and a symposium in their honor at the IUPAC World Congress in Istanbul, Turkey. In 2015 at the IUPAC World Congress in Busan, South Korea, IUPAC plans to continue this recognition opportunity.

At the Symposia in 2011 and 2013 where women spoke about the status of women in their countries, we ob- served many common trends about

the status of women from one coun- try to the next, including the signifi- cant underrepresentation of women at the senior and decision making levels.

While we believe that greater rewards and recognition of women is impor- tant towards accelerating leadership of women in chemistry, we also need to address the small percentages of women in chemistry who are at these senior and decision making levels.

Thus, IUPAC proposes to create a taskforce to establish the framework to examine the status of women in chemistry, globally addressing these global issues. The task force will as- sess available data on the participation and leadership of women in the global chemical enterprise, survey chemists worldwide, and make recommenda- tions to professional societies, fund- ing agencies, industry groups, and employers from around the world. The task force will first meet in Busan, South Korea to define their strategy and objectives for accelerating the par- ticipation and leadership of women in chemistry.

Reaching Out

Strengthening Relations with the ICSU family

Reaching out to Scientific Associates

Reaching out to International Organizations

Participation in other international events

Strengthening Relations with the ICSU Family

“Our Common Future Under Climate Change” Paris, France (July 6th, 2015)

On July 6th Manuel Limonta attended the special event “Our Common Future Under Climate Change” where ICSU brought together its cosponsored research programmes (such as WCRP, IRDR, PECS, CODATA, WDS, etc.) and international scientific committees and networks. This event was organized on the side lines of the most important climate science conference of the year: the UNFCCC Conference of the parties (COP21). At “Our Common Future Under Climate Change” participants explored the scientific knowledge that can drive and support a world transformation to a low-carbon future where we can successfully deal with climate change challenges in a sustainable and equitable way. The participants also worked on developing the key science messages that were delivered at the COP21 within the framework of an ICSU official side event.

“Urban Environment and Health” Summer School, Xiamen, China (July 15-18, 2015)

Then, on the same month (July 15-18), Ana Rada, member of ICSU ROLAC Regional Committee, gave a presentation about “Rural-urban migration and chronic diseases” at the “Urban Environment and Health” Summer School in Xiamen, China. The summer school was organized by the Institute of Urban Environment of the Chinese Academy of Sciences. The Institute of Urban Environment hosts the Programme “Health and Wellbeing in a Changing Urban Environment: A Systems Analysis Approach”. This programme represents an important activity in ICSU’s profile of international research collaborative actions.



115th Meeting of the Executive Board of ICSU, Paris, France (November 18-19, 2015)

On November 18-19th Manuel Limonta attended the 115th Meeting of the Executive Board of ICSU. This is one of the most important meetings for the ICSU family every year. All the Regional Directors, the Chairpersons of the Regional Offices, the President and the Executive Director of ICSU and also the members of the Executive Board, they all gathered round this important meeting. The work carried out by ICSU Headquarters and each Regional Office was reviewed and analyzed and future plans discussed.

Reaching out to Scientific Associates

27th International Cartographic Conference (ICC), Rio de Janeiro, Brazil (August 23-28, 2015)

The 27th International Cartographic Conference (ICC) was held from 23-28th of August in Rio de Janeiro, Brazil and was organized by the International Cartography Association. The conference brought together several hundreds of researchers and students worldwide in the main disciplines of Cartography, GIScience, and Remote Sensing. A variety of research topics were discussed ranging from map design, map use, users and usabilities to location based services, web GIS, SDI, standards and semantics as well as remote sensing applied to cartography. There were daily plenaries, key note speaker presentations and simultaneous presentations in 5 rooms. Manuel Limonta, Regional Director, participated as invited speaker representing ICSU. He gave a talk entitled “ICSU the International Council for Science” at the opening of the meeting.

At the meeting, were participants from 54 countries gathered together, 309 oral presentations and 155 poster presentations were delivered. The conference included an important International Cartographic Exhibition of different companies and countries, with 84 exhibitors in 2000 square meters, representing 34 countries with 269 paper maps, 48 atlas, 40 digital products, 8 digital services and 38 educational cartographic products.

Within the frame of the congress a drawing competition was organized: the Barbara Petchenik Competition 2015. They were received and exhibited 89 drawings from children from 38 countries. All of them will soon be accessible in the Winner Map Collection at the Carleton University Library and the winner chosen with a public vote.

Outreach events like this, allow ICSU ROLAC reaching regional groups within the scientific community. It was a pleasure to join the International Cartographic Association on this important meeting.

TWAS General Assembly, Vienna, Austria (November 18-21, 2015)

TWAS (World Academy of Sciences for the Advancement of Science in Developing Countries) held its 13th General Conference and 26th General Meeting from 18-21 November 2015 in Vienna, Austria. The Austrian Federal President Heinz Fischer led the opening ceremony where science and policy leaders urged a strong international commitment to cooperate on issues such as sustainable development, innovation and global peace. This event gathered together about 300 high-level scientists, policymakers, educators and other participants from more than 40 countries.

Manuel Limonta attended this important event and during the General Meeting was elected Vice-president of the Academy to address issues related to the region of Latin America and the Caribbean.

Reaching Out to International Organizations

The World Science Forum, Budapest, Hungary (November 4-7, 2015)

The 7th edition of the World Science Forum (WSF) took place on November 4-7 in Budapest, Hungary. The WSF is one of the major science events of the world and occurs every two years. The 2015 WSF was organized by UNESCO, the Hungarian Academy of Sciences, the International Council for Science (ICSU), the American Association for the Advancement of Science (AAAS), The World Academy of Sciences (TWAS) and European Academies Science Advisory Council (EASAC). Manuel Limonta attended this important event and exchanged ideas with scientists, policy makers and other participants.

On 2015 the WSF was organized under the theme “the enabling power of science”. Participants discussed critical global issues and adopted the “Declaration of the 2015 Budapest World Science Forum on the Enabling Power of Science” and called for concerted action to mobilize the international scientific community and to advance the use of science in order to meet the objectives defined in the Agenda 2030, the Sendai Framework for Disaster Risk Reduction 2015-2030 and the agreement of the COP21 Paris Climate Summit.

International workshop on “Comprehensive risk management of water-related hazards in the Caribbean islands” Havana, Cuba (November 26-27, 2015)

Manuel Limonta attended this workshop held in Havana, Cuba on November 26-27. Organized by the Regional Bureau for Sciences UNESCO in Latin America and the Caribbean (Montevideo Office), and the Regional Bureau for Culture in Latin America and the Caribbean (Havana, Office) it addressed the major risk factors of water-borne disaster in the Caribbean islands, in particular the cases of Aruba, Cuba, Haiti and Dominican Republic.

As a result of the analyses carried out at this workshop, the priorities for action that will have the support of UNESCO for the next two years were defined. The possibility of joint projects and synergies were also discussed. Special emphasis and attention was given to the potential impacts of climate variability and climate change in the occurrence of extreme hydro-meteorological events.

The attendance to this event provides ICSU ROLAC the opportunity of diplomatic exchange with disaster risk management experts of the region and therefore, the strengthening of the network, activities and scope of its own Disaster Risk Reduction Priority Area.

**Science, Technology and the Agenda 2030 for Sustainable Development, Montevideo, Uruguay
(December 2-3, 2015)**

On December 2-3, Manuel Limonta joined the Expert Wokshop on “Science, Technology and the Agenda 2030 for Sustainable Development” at the UNESCO regional office in Montevideo, Uruguay. Manuel Limonta gave a presentation within the session about “The Agenda 2030 for Sustainable Development.” Participants identified priorities in order to address the challenges for science and technology within the framework of the Agenda 2030. Mechanisms to improve the science and policy interface in Latin America and the Caribbean were discussed, as well as the role of scientific diplomacy on the implementation and attainability of the Sustainable Development Goals.



Participation in other international events

On March 19-21, Manuel Limonta attended the “5th international meeting on scientific avant-garde, geopolitical, economic and participatory democracy alternatives facing the worlds’ crisis.” The event was organized by the Metropolitan Autonomous University and the Mexican State Legislature and was held at Toluca, México. At this event different scenarios of global economic development were discussed. Manuel Limonta gave a talk about the Future Earth Project.

ICSU ROLAC has been invited to previous similar meetings and has always been regarded as an important event to be part of. Some of the topics discussed are global governance, global economic development and policy experiences, topics that are related to ICSU’s work. Therefore, it is important in terms of the visibility and the opportunities for synergies and joint projects with other organizations.



ICSU ROLAC Governance

- Regional Committee Members
- ICSU Members in Latin America and the Caribbean
- RCLAC17
- RCLAC18
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Regional Committee Members

Chair

José Luis Morán-López

Vice-Chair

Arturo Martínez

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

Ma. Carmen Cisneros
Liaison

Patricio Felmer

Ana Rada

Juan Jaén

Elisa Reis

Germán Poveda

Lilliam Álvarez

Manuel De León

Manuel Limonta

Steven Wilson
until March

Heide Hackmann
since March

Members of the ICSU Regional Committee for Latin America and the Caribbean in 2014:

Dr. José Luis Morán-López (Chair)	National Autonomous University of Mexico	Mexico	Male
Dr. Arturo J. Martínez (Vice Chair)	National Council for Scientific and Technological Research of Argentina (CONICET)	Argentina	Male
Dr. Patricio Felmer	Chilean Academy of Sciences	Chile	Male
Dr. Juan Jaén	University of Panama	Panamá	Male
Dr. Lilliam Alvarez	Cuban Academy of Sciences	Cuba	Female
M. Sc. Ana Rada	Higher University of San Andres	Bolivia	Female
Dr. Germán Poveda	National University of Colombia	Colombia	Male
Dr. Elisa Reis	Brazilian Academy of Sciences	Brazil	Female
Dr. María del Carmen Cisneros (Liaison)	National Autonomous University of Mexico, Mexican Academy of Sciences	Mexico	Female
Dr. Manuel de León Rodríguez (exofficio)	ICSU Executive Board Liaison	España	Male
Dr. Steven Wilson	ICSU Executive Director (until March)	France	Male
Dr. Heide Hackman	ICSU Executive Director (since March)	France	Female
Dr. Manuel Limonta (exofficio)	ICSU ROLAC Director	Mexico	Male

ICSU Members in Latin America and the Caribbean

On March 9-10th, ICSU ROLAC convoked the ICSU National Members' Focal Points in Latin America and the Caribbean LAC for a workshop in the University of Panama in Panama City. The event was inaugurated by Tomás Diez - Research Director of the University of Panama, Arturo Martínez – Vice-Chair of the Regional Office for Latin America and the Caribbean, Manuel Limonta – Director of ICSU ROLAC and Manuel de León – Member of the Executive Board of ICSU.

The participants of the meeting consisted in 15 out of the 17 National Members in the region (Argentina, Bolivia, Brazil, Caribbean, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, El Salvador, Guatemala, Jamaica, Panama, Peru, and Mexico), 2 countries in the process of becoming ICSU National Members (Ecuador and Honduras), 1 member of the ICSU Executive Board, 7 out of 9 members of the Regional Committee for Latin America and the Caribbean RCLAC, and the ICSU ROLAC Secretariat.

The objectives of the workshop were: 1) to report the activities of ICSU ROLAC in the last 5 years, 2) to share experiences and successful cases along the region, 3) to promote actions to enhance the three pillars of ICSU in LAC, 4) to enhance the scientific links among all the organizations, 5) to allow ROLAC to have feedback from the Focal Points, and 6) to establish a communications network among the Focal Points.





The first day of the workshop was dedicated to a report of ROLAC's general work in each priority area. During the second day, national cases - Brazil, Caribbean, Jamaica, Mexico, Cuba, Peru and Colombia- were presented, followed by a debate of possible collaborations within the region.

As a result, the Focal Points made a series of recommendations to ROLAC mainly oriented to 1) strengthening the collaboration between Focal Points and ROLAC, 2) the establishment of a regional scientific network, 3) actions to increase the visibility and impact of ICSU within the region, 4) suggestions on ROLAC's priority areas, and 5) synergies with other agencies. The Secretariat of ROLAC took note of all the recommendations and suggestions for the strengthening of the Office and made the commitment to take action as soon as possible. The recommendations were also shared and discussed on the following two days to the meeting with the Focal Points at the 17th Meeting of the ICSU Regional Committee for Latin America and the Caribbean.

The next meeting of ICSU Focal Points in LAC will be hosted by a National Member other than Panama a couple months before the 31st General Assembly of ICSU to be held in 2017.

RCLAC 17

17th Meeting of the ICSU Regional Committee for Latin America and the Caribbean

The 17th Meeting of the ICSU Regional Committee for Latin America and the Caribbean was held in Panama City, Panama, on March 11-12, 2015. New members of the RCLAC Committee for the period 2015-2107, Elisa Reis (in absence), Germán Poveda and Ana Rada, were welcomed.

Via video conference, Heide Hackman, ICSU Executive Director, welcomed all participants, and provided information on the vision, mission and structure of ICSU, its strategic plan, and the role and activities of ICSU Headquarters. She provided and update on the SIDA grant proposal, and agreed to participate in RCLAC18.

The ICSU ROLAC Director proposed to group the Priority Areas of Disaster Risk Reduction, Sustainable Energy and Biodiversity under the umbrella of Sustainable Development and to initiate activities on Urban Health and Wellbeing.

Science Officer Ángela Guzmán made a presentation on the IRDR programme, its collaboration with ICSU ROLAC, and the work plan of the Steering Committee on Disaster Risk Re-

duction (DRR). She also informed on the preparative meetings for the WCDRR to be held in Sendai, Japan, March 14th-18th, 2015. Camilo Garcia, Administrative Officer, reported on the activities on the Mathematics Education Priority Area and the RCLAC advised ICSU ROLAC to review all existing work by ICMI, REDUMATE and other networks and organizations.

Angelica Bucio, Communications Officer, presented the recommendations arising from the workshop of ICSU Focal Points, the latest development regarding the communication strategy and the new initiatives to create networks of researchers in LAC interested on working with ICSU ROLAC.

The RCLAC noted the contribution of ICSU ROLAC to the IANAS study on Nicaragua's Canal. The report is available online in ICSU ROLAC's webpage. The RCLAC directed Manuel Limonta to initiate negotiations for the establishment of a MoU with UNESCO Regional Office for Science and Math Education.

ICSU ROLAC Business Plan 2015-2016 was presented by the Science Officer and discussed by the Committee members. The decision to approve the Business Plan 2015-2016 was postponed until after April 13th so as to give RCLAC members the opportunity to analyze it and to send comments.



Participants of The 17th Meeting of ICSU ROLAC.

RCLAC18

18th Meeting of the ICSU Regional Committee for Latin America and the Caribbean

The 18th Meeting of the ICSU Regional Committee for Latin America and the Caribbean was held in Montevideo, Uruguay, on October 29-30, 2015.

Heide Hackman ICSU Executive Director, provided general information on the external review of ICSU, other ICSU programs and regional offices, ICSU's challenges and the work being done regarding the recommendations received. Manuel Limonta, Regional Director, spoke about the CSPR Review of ICSU ROLAC. Heide Hackman also reminded the Committee members that ICSU is going through a process of transformation and redefinition where it is imperative to develop a clear vision for the Regional Offices.

Manuel Limonta and Heide Hackman informed about the recent negotiations regarding the new hosting country for ICSU ROLAC. Some negotiations with local authorities from Uruguay were held parallel to the RCLAC18.

The progress on the Priority Areas was reported by ICSU ROLAC staff and the Chairpersons of each Steering Committee. The progress reported on the Mathematics Education Priority Area was applauded by the Committee members as this priority area has been moving forward with tangible results. The progress for the Sustainable Energy Priority Area was reported by Manuel Limonta (in the absence of the Chairperson) and focused on ICSU's position on Global Climate change on the way to the UNCCC



Participants of The 18th Meeting of ICSU ROLAC.

COP21. The progress for the Disaster Risk Reduction Priority Area was read out loud by Manuel Limonta (as the connection via Skype with Barbara Carby, chairwoman of the SCDRR, failed). The Regional Committee suggested the SCDRR to implement the recommendations made by the CSPR Review, in general, and achieving a better focus on the planned activities, in particular.

Communications Officer Angelica Bucio informed Committee members that the Communications strategy has kept on moving forward. She also reported on the Early Career Scientists Strategy in which she had been involved. Both, Patricio Felmer and Lilliam Álvarez congratulated the Communications Officer for her work and results.

Administration Officer Camilo García informed about the ICSU ROLAC financial report for July 2014 — June 2015. The financial information presented was also used as a base to discuss the financial contributions that should be considered when deciding the new hosting country.

The Regional Office Secretariat

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



The Mexican Academy of Sciences (AMC) hosts the Regional Office for Latin America and the Caribbean as established in a formal agreement signed by AMC, CONACyT and ICSU for the period 2011-2015 and later extended to mid-2016.

DIRECTOR

Manuel Limonta, Prof. Ph.D.
manuel.limonta@icsu-latin-america-caribbean.org

SCIENCE OFFICER

Ángela M. Guzmán, Prof. Ph.D.
angela.guzman@icsu-latin-america-caribbean.org

Guillermina Echeverría-Lozano, Ph. D.
guillermina.echeverria@icsu-latin-america-caribbean.org

ADMINISTRATIVE OFFICER

Camilo García, Lic.
camilo.garcia@icsu-latin-america-caribbean.org

COMMUNICATION OFFICER

Angélica Bucio, Lic.
angelica.bucio@icsu-latin-america-caribbean.org



Financial Summary

Financial Summary 2015	
CREDIT	USD
CONACyT	\$227,379.19
ICSU	\$114,041.53
Total Funding	\$341,420.72
EXPENSES	USD
ROLAC Workshops	
Air and ground transportation	\$ 26,065.75
Accommodation and meals	\$ 23,317.86
Support material	\$ 255.09
Total	\$ 49,638.69
Meetings RCLAC	
Air and ground transportation	\$ 23,476.95
Accommodation and meals	\$ 16,930.77
Meeting room and support material	\$ 1,325.45
Total	\$ 41,733.17
Outreach Activities	
Air and ground transportation	\$ 19,489.59
Accommodation and meals	\$ 1,908.79
Support material	\$ 141.88
Total	\$ 21,540.27
External consultation	
Second and final payment DRR Consultant	\$ 11,880.00
ROLAC Expenses	
Staff honoraries	\$171,096.71
Editing and printing	\$ 11,493.05
Travel expenses	\$ 1,692.11
Office supplies & software	\$ 1,584.51
Communications	\$ 3,671.94
Total	\$189,538.33
Total Expenses 2015	\$314,330.45



Communications

The communications area of ICSU ROLAC has three main tools for creating bridges that may be beneficial for the scientists in the region and for the society as a whole.

In the webpage <http://www.icsu.org/latin-america-caribbean> you may find the **events** organized by ICSU ROLAC since its establishment since 2007. There you can learn more about our priority areas and outreach activities. Moreover, you can get free access to our **publications**.

The ICSU ROLAC **Newsletter** started in 2012 and goes out every four months –January, May and September; it is published in English and Spanish. You may find it in our webpage and receive it in your mail if you **subscribe** our mailing list.

For a more direct communication with the scientific and non-scientific community, we are active in **Facebook** ICSU ROLAC, **Twitter** @ICSU_LAC, **Flickr** ICSU ROLAC and **LinkedIn** ICSU ROLAC. In there, we post information in real time and share information such as pictures, interesting news and calls.



The International Council for Science (ICSU)

Benefits of Joining ICSU

ICSU Interdisciplinary Bodies

ICSU Scientific Associates

ICSU Scientific Unions

ICSU National Members in LAC

Benefits of Joining ICSU

All Members receive copies of ICSU publications: the electronic newsletter ICSU Insight, Annual Reports, as well as any other ICSU publications including serials.

Members have access to the restricted Member Zone of the ICSU website and to the ICSU databases.

Members have access to the activities and services of different committees of ICSU, in particular, the Committee on Freedom and Responsibility in the conduct of Science helps solving visa problems for scientists wishing to attend scientific meetings and provides advice to organizers of international meetings.

Members gain access to the global scientific community and to the enormous network of scientists comprising the membership of ICSU.

Members gain the prestige provided by the ICSU umbrella.

Full National Members have voting rights at the ICSU General Assembly, the highest ICSU's governance body, and thus participate in establishing guidelines and directives for ICSU activities.

ICSU's International Scientific Unions and National Scientific Members 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

Interdisciplinary Bodies focus on specific areas of international research that are of interest to all or many ICSU Members, and are designed to become self-sufficient and independent in terms of day-to-day operations and financing.

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
Future Earth: Research for Global Sustainability

International Geosphere-Biosphere Programme (IGBP)
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 Associates

Scientific Associates support the objectives of ICSU and uphold the principle of the Universality of Science.

African Academy of Sciences (AAS)
Association of Academies and Societies of Sciences in Asia (AASSA)
Commission Internationale de l’Eclairage (CIE)
International Arctic Science Committee (IASC)
International Association of Hydraulic Engineering and Research (IAHR)
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)
The World Academy of Sciences (TWAS)
Union Internationale de Spéléologie (UIS)

ICSU Scientific Unions

The 31 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.

ICSU Scientific Unions
International Astronomical Union (IAU)
International Brain Research Organization (IBRO)
International Cartographic Association (ICA)
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 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 and Technology (IUHPST)
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)

ICSU National Members in LAC

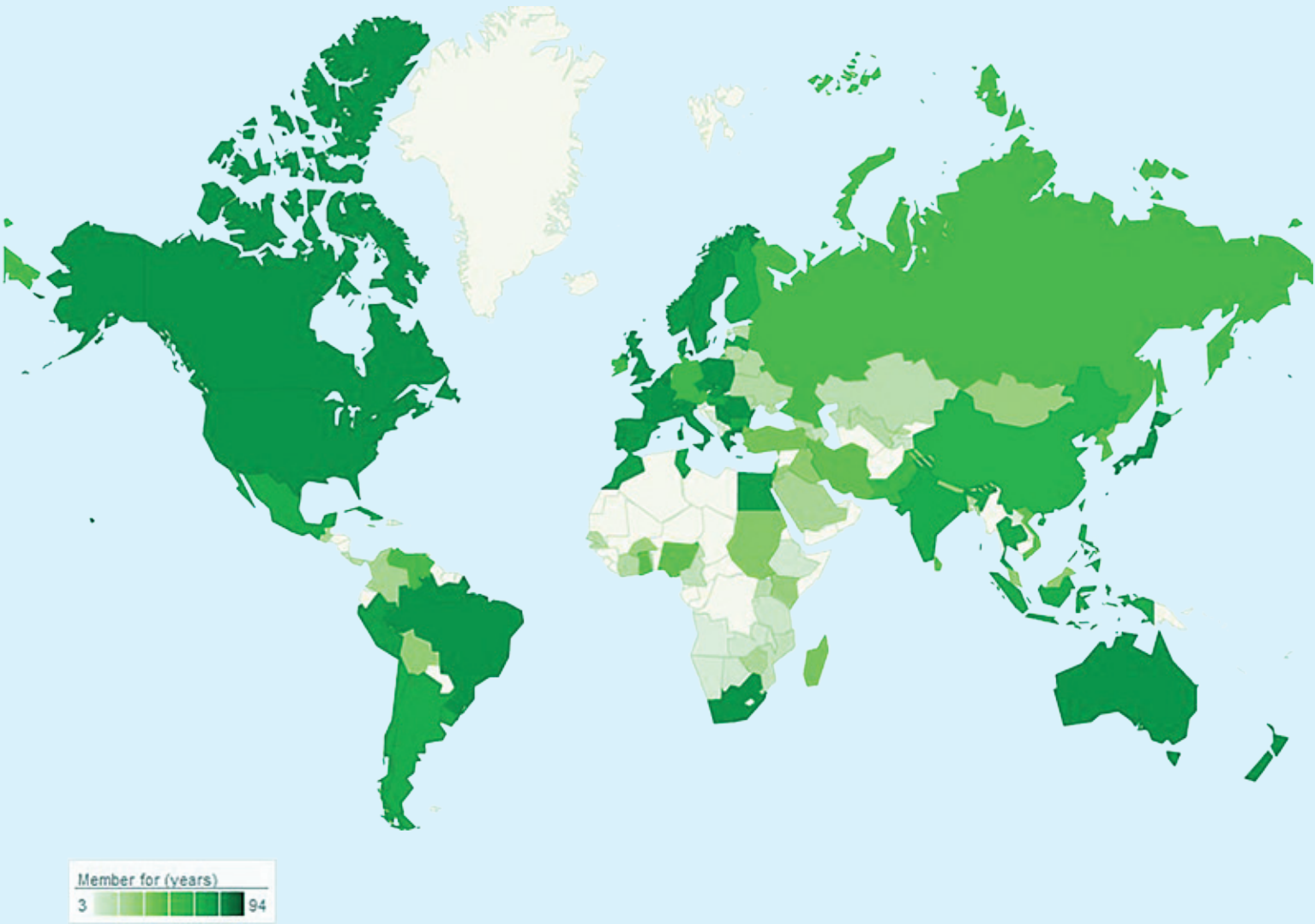
ICSU has 121 National Members covering 141 countries, 17 of them in Latin America and the Caribbean. These Members provide input, from a national, multidisciplinary perspective, on priority areas for future ICSU activities. They also play an important role in facilitating links with national governments and science agencies.

Argentina	National Scientific and Technological Research Council (CONICET)
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*National Associate
**National Observer

Edited by Guillermina Echeverría Lozano, ICSU ROLAC Science Officer, 2015

CREDITS:
Electronic Editing and Design: Juan Carlos Burgoa
Cover Photos: Thinkstock





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ICSU Regional Office for Latin America and the Caribbean
"Casa Tlalpan", Km. 23.5 Carretera Federal México-Cuernavaca,
Avenida Cipreses s/n Col. San Andrés Totoltepec, Tlalpan, 14400 México, D.F.
Tel: + 52 55 58 49 20 32
Fax: + 52 55 58 49 51 08
E-mail: secretariat@icsu-latin-america-caribbean.org
www.icsu.org/latin-america-caribbean