

# 2018

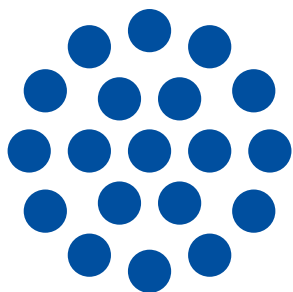
ANNUAL REPORT



**International  
Science Council**

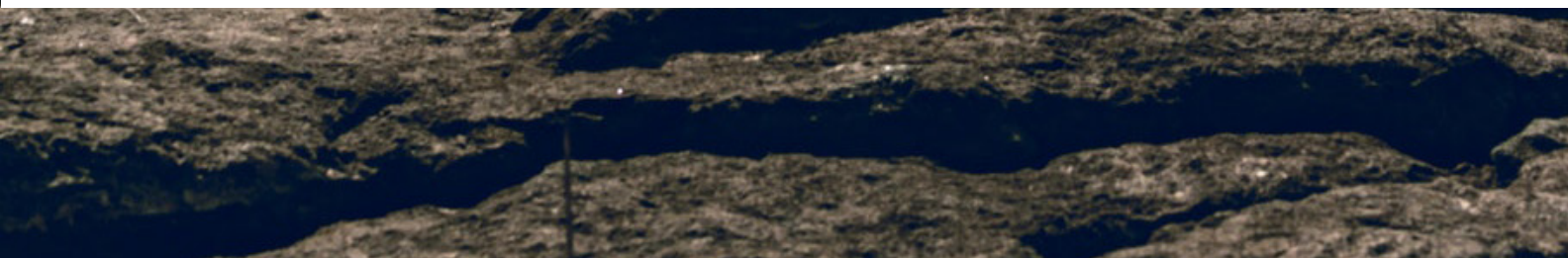
Regional Office for Latin  
America and the Caribbean





# **International Science Council**

Regional Office for Latin  
America and the Caribbean



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## MESSAGE FROM THE INCOMING CHAIRWOMAN OF THE REGIONAL COMMITTEE

For the ISC ROLAC, the 2018 management was plagued with many challenges and changes. Many important tasks were carried out in order to advance in a constant changing world.

In the 2018 year, we were part of a very important event, which was the creation of the International Science Council (ISC) as a result of the merger of the International Council for Science (ICSU) and the International Social Sciences Council (ISSC), being the ISC the only international organization that brings together both: the natural sciences and the social sciences.

At the last ISC ROLAC Regional Committee meeting held in November in San Salvador, El Salvador (headquarters of the ISC ROLAC regional office), I had the great honor of being elected Chair of the ISC ROLAC Committee, an important and great responsibility position, that I have to perform, with the great support of all the Committee members, as well as the tenacious and efficient work of the Regional Office staff, to help all together to fulfill the strategic objectives of the ISC, as well as, to fulfill the main mission of the organization that is: "To be the global voice of science", taking into account the 17 sustainable development objectives of the 2030 agenda, that are intimately related to the priority areas of ISC ROLAC and the main problems that are the regional concern.

The transfer of the Regional Office to El Salvador, has strengthened the International Strategic Development in Central America, promoting the participation of scientists and scientific organizations in several activities related to priority areas (conventions, workshops, conferences, symposia and meetings), these events strengthen the science according to the regional priorities, also promoting the development of important public policies.

It is necessary to highlight events of great importance that were part of the year 2018, among which are: The activities of the Urban Health working group with the participation of government authorities of El Salvador, Mathematics Education, Disaster Risk Reduction, Sustainable Energy and Biodiversity.

It is important to mention that the relationship and work with TWAS, Urban Health and Wellbeing, INGSA, Future Earth, Open Data and Scientific Diaspora, has been strengthened.

I thank to ISC ROLAC and the Regional Committee, for the support and trust placed in my person, to carry out the position of Chairwoman of the Regional Committee.



Ana Rada  
Chair of the Regional Committee

## MESSAGE FROM THE DIRECTOR OF THE REGIONAL OFFICE

2018 has been a year full of achievements and satisfactions for the ISC ROLAC Office in which we were able to achieve the objectives set for the different priority areas, promoting and carrying out scientific activities that have benefited the Latin American and Caribbean region. The recent merger between the International Council of Social Sciences and the International Council for Science, which became official in July 2018, has been a very important step for our organization broadening the spectrum of areas of scope, now in the social field, giving rise to attention to social issues that are related to the countries of the region, for example, violence among others.

From the secretariat located in San Salvador, El Salvador, ISC ROLAC started the year with a series of activities, that to date achieve sustainable development objectives, one of the most emblematic examples is the Urban Health project for which the Office has varied lines of work such as the international agenda and the local agenda, in this area, ISC ROLAC has been providing assistance in the planning, coordination and financial support for the implementation of the Urban Health Model workshops in the municipalities, with the active participation of its mayors. The municipalities have continued with these projects making them grow, becoming beneficiaries not only in the health area, but also economically.

Given that hurricanes and earthquakes are frequent in our region, ISC ROLAC has strongly supported the priority area of Disaster Risk Reduction throughout 2018, participating in meetings coordinated by international organizations such as UNESCO, The World Bank, FLACSO and the like, as well as facilitating the advice of high-level experts on the subject of Disasters to the authorities of the Ministry of Environment and Natural Resources and the Ministry of the Interior in El Salvador. It is worth highlighting in this framework, the launching of the book FORIN (Forensic Investigation After Disasters), and an important meeting in Panama of the Steering Committee on Risk and Disaster Reduction for the work being carried out in this area in Latin America and the Caribbean.

ISC ROLAC made an important contribution in the region by doing an international coordination in the area of Biodiversity with the workshop "Ancestral Knowledge and the Dialogue of Knowledge" in coordination with the Autonomous University of Mexico, becoming the first meeting to initiate the work for the creation of a Latin American Ancestral Knowledge Network and the coordination with the National University of El Salvador for the edition of a book based on the important information gathered during the presentations of the Workshop.

During this year, we have been very pleased to collaborate to the work of the International Network for Scientific Advice for Governments (INGSA), facilitating and supporting the coordination and logistics of this organization in Latin America. Likewise, we will carry out important actions in the area of Mathematics Teaching, as a workshop held in El Salvador in coordination with the Ministry of Education and UNESCO, in which the subject of gender gap in the area of mathematics was discussed with a massive assistance of salvadoran math teachers.

It is important to mention that the relationship and work with TWAS, UNESCO UNSIDR and IMU has been strengthened. Different programs like Urban Health and Wellbeing, Mathematic teaching, Disasters risk reduction, INGSA, Biodiversity, Open Data and Scientific Diaspora, has been strengthened.

ISC ROLAC will continue with the endeavor to expand its range of collaboration at a regional and global level, developing the programs and activities in the different priority areas for the benefit of the society.



**Manuel Limonta**

Director of the ISC Regional Office  
for Latin America and the Caribbean



credit: Neil Thomas, Unsplash.com

## VISION

The long-term ISC 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 policymaking. 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

ISC's mission is to strengthen international science for the benefit of society. To do this, ISC 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.







# PRIORITY AREAS

# URBAN HEALTH

Urbanization presents opportunities and risks, as well as enormous challenges to maintain and improve the health and wellbeing of the inhabitants. The recognition of this imperative led the International Science Council (ISC) and its various Regional Offices, including that of Latin America and the Caribbean (ISC ROLAC) to promote the research on the subject and to emphasize the need to study urban dynamics. ISC ROLAC follows the international scientific programme, approved at the 30<sup>th</sup> ISC General Assembly, which proposes a new conceptual framework for considering the multi-factorial nature of both the determinants, and the manifestations of health and wellbeing in urban populations.

## MEETINGS OF THE URBAN HEALTH COMMISSION, AND POPULARIZATION OF THE URBAN HEALTH MODEL.

In 2018, ISC ROLAC met with representatives of the Ministry of Health of El Salvador, Medicus Mundi, COAMSS / OPAMSS and PAHO to provide technical support to create a popular version of the Urban Health Project in El Salvador.

There were around 13 meetings throughout 2018 in which Claudia Marroquín and Gerardo Aldana, representatives of ISC ROLAC, met with the Urban Health Commission to determine and review the dialogue, the message, the illustrations for the creation of the popular version of the Urban Health Plan. This popular version was a comic book brochure that simplified the UH plan so that everyone, including children, could understand what the Ministry of Health plan implied and what the population's role in the plan is.

The meetings took place in different places of San Salvador, such as the offices of ISC ROLAC, MINSAL and Medicus Mundi. The final version was presented to Dr. Julio Robles Ticas, Deputy Minister of Health Services of El Salvador, who gave final approval before it was eventually published.

## CUBA SALUD

The International Convention on Cuba Salud 2018 was held from April 23<sup>rd</sup> to 27<sup>th</sup>, to which the ISC ROLAC office was invited to present proposals for conferences related to advances in health.

Because one of the priority areas of ISC ROLAC is Urban Health, the office has been working very closely with the ministry of health and the intersectoral working group consisting of integrated ministries and institutions to work on the implementation of the Urban Health Model in El Salvador. ISC ROLAC, in coordination with the Ministry of Health, formed a delegation that represented El Salvador.

The delegation was made up of:

- Dr. Violeta Menjívar Minister of Health of El Salvador.
- Dr. María Isabel Rodríguez Adviser to the Presidency on health and education issues.
- Lic. Sergio Quijada Mayor of the Municipality of Nejapa and representative of the Political Commission of COAMSS OPAMSS
- Dr. Algeria Dubón. National Director of Noncommunicable Diseases
- Dr. Hellen Centeno, Technical Health Advisor COAMSS / OPAMSS.
- Dr. Guillermo Argueta Technical Advisor of the Presidency.
- Dr. Salvador Macal, Medical Technical Collaborator.
- Dr. Manuel Limonta. Regional Director ISC ROLAC.
- Lic. Claudia Marroquín ISC ROLAC Liaison Officer.

The convention included a series of simultaneous presentations, conferences, round tables, plenary



sessions on scientific topics related to health, risk reduction and disasters, management of non-communicable diseases, environmental health and sustainable development, chronic diseases, new advances in disease treatments chronicles, and the use of stem Cells, new technological tools in health, to which the commission had the opportunity to attend and participate in several presentations of interest.

El Salvador had its participation with the presentation of Dr. María Isabel Rodríguez on the theme of “Health Reform, Analysis and Development in its First Stage”, followed by the presentation of the Minister of Health of El Salvador, Dr. Violeta Menjívar in the topic “The Health Reform in El Salvador, achievements during the period 2014-2017” and the Presentation of the Urban Health Program in El Salvador.

During the stay in Cuba, the delegation of El Salvador had the opportunity to cover a work agenda in parallel with the activities of the convention which included meetings with authorities on the subject of health, visits to hospitals, interviews with the press, and many more. Out of all the work done by the delegation during their participation in the convention, the following achievements stand out:

- Participation in the launch event of the 16th Vaccination Week of the Americas.
- Participation in the opening of the “Salud para todos” Trade Fair.
- Participation in the official opening of the “Cuba Salud 2018” Convention, which was chaired by the President of Cuba Miguel Díaz Canel, as well as the Director of WHO, the Director of PAHO and the representatives of more than 98 international delegations.

Tuesday, April 24

Minister of Health of El Salvador chairs the plenary table on Universal Health, together with the Deputy Minister of Health of Cuba, Dr. Alfredo González Lorenzo, the director of PAHO, Dr. Carissa Etienne, Dr. Arana Campero, Minister of Health of Bolivia, Dr. Wang Hesheng, Deputy Minister of Health of China

and Professor Piyasakol Sakolsatayadorn, Minister of Health of Thailand.

Wednesday, April 25.

Meeting with Dr. Carissa Etienne, Director of PAHO and Dr. Cristian Morales, representative of PAHO in Cuba. El Salvador participated in the informative round table, a program broadcast by Cubavisión Internacional and Telesur. “Universal Health Principle of the Cuban System”. The panel was composed by Dr. C. Pastor Castell-Florit Serrate, President of the Cuba-Salud Scientific Program 2018, Dr. Violeta Menjívar Escalante, Minister of Health of El Salvador and her Bolivian counterpart, Dr. Ariana Campero Nava, as well as as Dr. Ileana Morales Suárez, Director of Science and Technological Innovation of the Ministry of Health of Cuba.

Thursday, April 25.

The “Ramón Pando Ferrer” Institute was visited, a meeting was held with the director, Dr. Marcelino Río Torres and the institute’s management team.

Friday, April 26.

Meeting with the Vice President of Cuba and Minister of Health, Dr. Roberto Morales Ojeda, accompanied by the Minister of Health, Vice Minister Marcia Cobas, Dr. Regla Angulo, Director of the Medical Cooperation Unit and Dr. Nestor Marimón, Director of Relationships Internationals. The importance of Cuba’s cooperation with the country was reported: technical assistance for the implementation of the health reform, provision of health services in the national reference ophthalmological center that performs an average of 5000 surgeries per year, among others.



## URBAN HEALTH MEETING AT ILOPANGO'S MAJOR'S OFFICE

On June 6<sup>th</sup>, 2018, Dr. Manuel Limonta, Claudia Marroquin, Oscar Reyes, and Gerardo Aldana participated in a meeting held at Ilopango, one of the 14 urban municipalities of San Salvador. The meeting was convened by COAMSS/OPAMSS through Dr. Helen Centeno, Health Advisor to said organization. The purpose of the meeting was to present the Salvadoran Urban Health Model to the new mayor of the municipality in order to re-establish the ongoing efforts carried out by the ISC ROLAC Urban Health Working Group. In the meeting, Dr. Limonta presented about the Salvadoran Urban Health Model, mentioning a brief timeline from the birth of the model until the latest activities carried out by the participants. Once the presentation was over, the conversation moved on to discussing about the needs of the municipality and the focus they would like to give to the project, which centers its attention in the development of the touristic corridor and entrepreneurship within its inhabitants. In principle, the representatives of the municipality agreed to continue the efforts in the Urban Health projects and showed openness to continue the work started by the previous administration. Having agreed that, it was

mentioned the possibility to carry out a workshop in order to address the topic selected by the municipality. It was then said that details such as dates and places would be confirmed after carrying out some inquiries regarding costs, high season dates, and alike.

## URBAN HEALTH MEETING AT NEJAPA MAJOR'S OFFICE

On June 13<sup>th</sup>, 2018, Dr. Manuel Limonta, Claudia Marroquin, participated in a meeting held at Nejapa. The meeting was convened by COAMSS/OPAMSS through Dr. Helen Centeno, Health Advisor to said organization. The purpose of the meeting was to inaugurate the Urban Health priority project selected by the municipality which is "Home Gardens and Healthy Eating". The meeting was chair by Ing. Adolfo Barrios, Nejapa's major, and Dr. Manuel Limonta, ISC ROLAC regional director. In his intervention, Ing. Barrios mentioned how his administration is paying close attention to health prevention through the establishment of home gardens, and teaching citizens about healthy eating.

Then, Dr. Limonta briefly talked about ISC ROLAC and its work in the country and region, paying special attention to the Urban Health initiatives. Finally, after

Honorary Table at Urban Health Event n Nejapa, El Salvador.



the inauguration act, the approximately 120 attendants were given plants to officially launch this UH municipal initiative.

## URBAN HEALTH WORKING GROUP MEETING

The meeting took place at the Ministry of Interior and Territorial Development, and it began with some welcoming words given by Minister Lic. Aristides Valencia, who thanked all the participants for attending the meeting. Then, MD. Jorge Irazola, representative of Medicus Mundi, briefly talked about international cooperation given to the project, emphasizing the aspects in which his organization has been involved in.

Then, Dr. Manuel Limonta, ISC ROLAC Regional Director, presented about some of the actions carried out in the international agenda, highlighting the interest of China in knowing more in detail about the Salvadoran model.

Then, representatives of the different members of the ISC ROLAC working Group presented some laws and regulations promoted by the different ministries.

The following ministries presented their actions in the frame of Urban Health: Ministry of Education; vice ministry of Living and Urban Development (MOP); vice ministry of Transportation (MOP), National Secretary of Culture; INDES, vice ministry of Social Prevention.

## COMPARATIVE STUDY ON EL SALVADOR'S AND BOGOTA'S URBAN HEALTH MODELS

From July 17<sup>th</sup> to 21<sup>st</sup>, ISC ROLAC, along with Medicus Mundi hosted and promoted various meetings between Dr. Shirley Merchan, from the Fundación Universitaria del Área Andina and representatives of the ISC ROLAC Urban Health Working Group.

The purpose of the visit was to interview members of the Urban Health Working Group. Dr. Merchan carried out around 20 interviews, including from representatives of the following organizations:

List of organizations:

- Vice Ministry of Science and Technology
- Ministry of Health
- Ministry of Health and Wellbeing
- INDES
- Ministry of Culture
- Ministry of Education
- Medicus Mundi
- COAMSS/OPAMSS
- MOP
- PREPAZ
- ISC ROLAC
- ISC ROLAC Urban Health Working Group

## URBAN HEALTH INTERSECTORIAL WORKING GROUP 2018

Throughout 2018, the ISC ROLAC office has continued to work actively with the Intersectorial Urban Health working group led by the Ministry of Health of El Salvador. The group is made up of representatives from the Ministry of Health, Ministry of Environment and Natural Resources, Ministry of the Interior, Ministry of Education, Ministry of Culture, Ministry of Justice and Public Security, Ministry of Public Works, Vice Ministry of Science and Technology, Vice Ministry of Transportation, Vice Ministry of Housing and Urban Development, Council of Mayors and Planning Office of the Metropolitan Area of San Salvador, National Institute of Youth, National Institute of Sports, National University of El Salvador, Medicus Mundi, and OPS.

In the ISC ROLAC head offices the group has been meeting periodically to inform, update and monitor the programs and policies that each ministry is developing in the area of Urban Health. The working

group is a space in which the key actors that promote the urban health project in El Salvador are integrated. The group has the participation of international organizations that provide technical advice and provide financial support to the activities that are benefiting the development of El Salvador in this area. Among the activities that are developed with the working group are the planning and development of workshops, the dissemination activities, and the popularization of the Urban Health project, and the support in the contribution of updated information about the programs in the different institutions.

The meetings were held mainly at the ISC ROLAC facilities. The office also carried out the planning, logistics and coordination of the meetings together with the Ministry of Health, Medicus Mundi, PAHO and COAMSS OPAMSS.

## IMPLEMENTING SYSTEMS SCIENCE FOR URBAN HEALTH AND WELL-BEING UNDER CLIMATE CHANGE

The Institute of Social Sciences in Lisbon University was the host for the workshop “Implementing

Systems Science for Urban Health and Well-Being under Climate Change” on September 18th-21st.

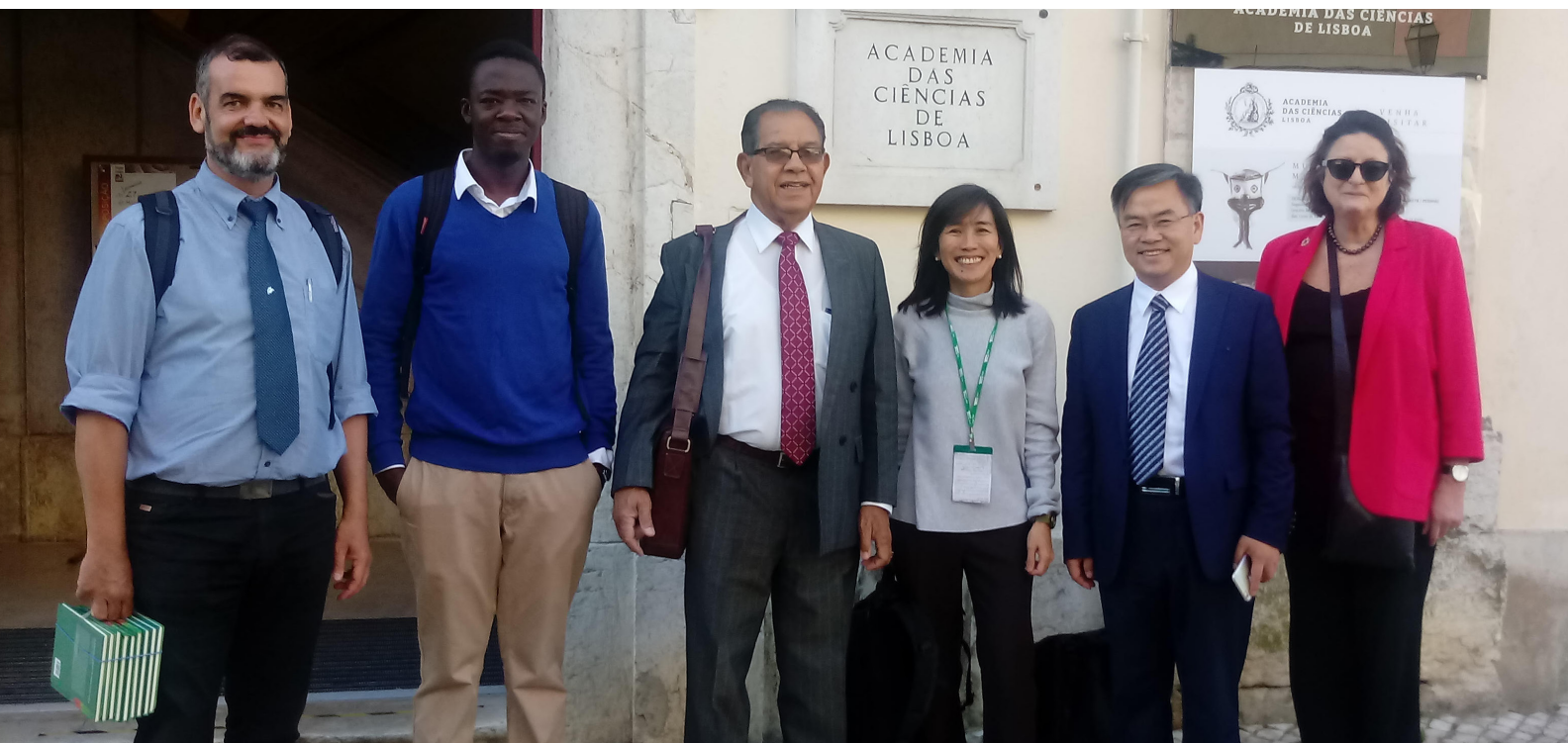
This workshop had three main goals:

- Discuss examples and opportunities for implementing a systems approach to urban health and wellbeing under climate change.
- Identify obstacles to implementations and how to overcome them.
- Formulate recommendations on how to implement systems approaches, among others knowledge-to-action.

This meeting was attended by a group of experts including Dr. Manuel Limonta, ISC ROLAC Regional Director; Franz Gatzweiler, UH WV program exec. Director; Charles Ebikeme, ISC; Virginia Murray, Public Health England; and other participants at the University of Lisbon. The purpose of the meeting was to exchange knowledge and formulate recommendations on how to mix the knowledge we have with the actions required to improve health and well-being in cities with climate change.

At the meeting there were agreements on conceptual approaches and recommendations for policy makers and the academy. The outcome of this meeting will be published in the UHWB Policy Brief Series.

Participants of the workshop at the Academy of Sciences in Lisboa, Portugal.





## BELT & ROAD SYMPOSIUM ON URBAN HEALTH AND WELLBEING IN THE ASIA- PACIFIC REGION

This past October 16th-18th, Dr. Manuel Limonta, regional director for ISC ROLAC, attended a symposium called “Belt & Road Symposium on Urban Health and Wellbeing in the Asia-Pacific Region”, which was held at the Institute of Urban Environment (IUE) of the Chinese Academy of Sciences and Technology (CAS), and was organized by IUE, CAS, the Global Program on Systems for Science for Urban Health and Wellbeing (ICSU) UHWB ), ISC ROAP, and ISUH. The event is primarily an attempt to promote trade among B & R countries. Healthy economics, however, need healthy people and healthy environments, which is at the core of China’s vision to build a Health Silk Road in cooperation with the WHO. While urban health can combine the various health-related urban initiatives, B & R can bring people together to synthesize the knowledge on how to achieve and measure urban health across the region.

There were several presentations. Some of them by Dr. Charles Glover, of ISC ROAP; Dr. Youngguan Zhu, from the urban environment institute; Prof. Juan Vela and Dr. Carlos Barcelo, both from Cuba; Dr. Franz Gatzweiler, UH WV program exec. Director; and another presentation by Dr. Manuel Limonta, regional director of ISC ROLAC, who presented the Salvadoran urban health model.

## JOINT COLLABORATION WITH CONAINS

CONAINS is an entity under the Ministry of Health of El Salvador (MINSAL), formed in August 2018, and is a multidisciplinary and inter-institutional body of technical and scientific nature, responsible for authorizing, coordinating, supervising and supporting

health research processes, as well as adequate management of information and the correct use of the results of research associated with health, and with it, promote the protection of living beings.

CONAINS is made up of MINSAL representatives through the National Institute of Health (INS) that will also preside over the council, in addition to the Superior Council of Public Health (CSSP), the National Directorate of Medicines (DNM), Salvadoran Social Security Institute (ISSS), Solidarity Fund for Health (FOSALUD), Salvadoran Institute for Integral Rehabilitation (ISRI) and the Ministry of Education, through the National Council of Science and Technology (CONACYT).

CONAINS has met periodically, with ISC ROLAC acting as a participant and sponsor. In addition to this, ISC ROLAC invited Dr. Oliver Pérez, president of the Latin American Immunology Association within the framework of the presentation of the ALERTA Magazine to give a lecture to the scientific community on the subject: Immunology in Latin America and the world and Psychoneuroendocrinoimmunology as a regulatory suprasystem. ISC ROLAC coordinated and sponsored the visit of the immunology expert and the conferences held at the Rosales Hospital, CONAINS and the National University of El Salvador.

The goal of the visit was to give a conference on this topic to CONAINS researchers, students, doctors and nurses. ISC ROLAC has also coordinated a meeting of the Coordinator of the Scientific Department of Health / CONAINS, with experts in CUBA to advise on the publication of the scientific journal ALERTA, developed by CONAINS.



# DISASTER RISK REDUCTION

It is known that Latin America and the Caribbean is a place prone to disasters, whether natural or man-made. ISC ROLAC recognizes such reality and that is the reason Disaster Risk Reduction is one of its priority areas.

The Secretariat seeks to contribute to better and more effective understanding of disaster risk and disaster risk management in the Latin American and Caribbean regions, promoting research in an Integrated interdisciplinary framework.

## LAUNCHING OF THE FORENSIC INVESTIGATION OF DISASTERS BOOK (FORIN)

The Regional Office of Latin America and the Caribbean of the International Council of Science, in joint efforts with the Ministry of the Interior and the Ministry of Environment and Natural Resources of El Salvador recently launched a book entitled "The Forensic Investigation of Disasters" (FORIN). The

launch took place at the auditorium of the Faculty of Agronomic Science at the Universidad de El Salvador (UES) on January 25<sup>th</sup>.

The launch was presided by the Minister of the Interior and Territorial Development, Aristides Valencia; the Regional Director of ICSU-ROLAC, Manuel Limonta; the Dean of The Faculty of Agronomy of UES, Juan Rosa Quintanilla, and experts in the subject, Allan Lavell (co-author of FORIN) and David Smith.

During the launch, Minister Valencia made emphasis on the important contributions of this book on the topic of Disaster Risk Management, especially on high-risk countries like El Salvador. Dr. Limonta also made emphasis on the proven fact that disasters have increased in frequency and intensity, which is a reality that needs an effective and quick response in which all parts of society need to contribute.

The book was written by four experts of the highest level when it comes to disaster risk management. FORIN is 103 pages long, and mainly "provides a conceptual map and guide for forensic disaster investigations, which focuses on the investigation of the causes of disasters and their occurrence. To achieve said objective, the book tackles topics such as disasters & risks around the world; disasters & risks

El Salvador's Minister of the Interior Aristides Valencia (center), Alan Lavell (right), Dr. Manuel Limonta (left), and other participants, San Salvador, El Salvador



comprehension and the establishment of priorities for an investigation; understanding the construction of risk as a process; among other topics<sup>1</sup>.”

During the launch, Allan Lavell was able to talk to the members of the National Commission for Civil Protection Prevention and Mitigation of Disasters, and other participants about the conceptual and theoretic map upon which FORIN was conceived.

One of the main arguments was the fact that disasters are not unexpected and unpredictable, and that there is a series of causes that are part of the social construction of the risk of disasters. After Dr. Lavell’s participation, Dr. David Smith proceeded with a presentation in which he addressed aspects such as the pertinence, the applicability, the investigators, and the relation between four variables: resources, risks, development, and disasters. Dr. Smith also presented a series of questions such as “what should we understand when we say development? What is its relation to the generating of risks and disasters? Is there such a thing as non-development? among other questions. Finally, the panel answered several questions and comments made by the audience.

This launch had a very positive reception, and it represented an important step for the country since Minister Valencia confirmed that his ministry has plans to work on two issues of huge relevance for the country: the law of territory management and development, and the risk management policy.

This way, the ROLAC (El Salvador, C.A) and its Disaster & Risk Reduction working group reaffirm their compromise and disposition to work on topics of big importance and relevance for the region. In this sense, there have been talks to launch this plan in other parts of the region, with the mission that other countries can also take a step to a better conception, understanding, and preparation against disasters.

## DISASTER RISK REDUCTION MEETING

This past February 22<sup>nd</sup> -27<sup>th</sup>, in Mexico City, Dr. Manuel Limonta, Regional Director of ICSU ROLAC, attended a meeting that had different objectives. One was discussions related to risks and disasters with Professor Irasema Alcántara, a geographer, and professor at UNAM.

Another aspect of the visit was meetings with Maya Lorena Pérez from the direction of CONACYT’s Mexican biodiversity group. The aspects discussed were the publication of a book about the biodiversity of which there is already a draft, and the prologue is written by Dr. Limonta. Another aspect of interest was exchanged with the President of the Mexican Academy of Science, Dr. José Luis Morán López and the organization’s Secretary, Renata Villalta.

In these meetings, it was confirmed the participation of a member of the Mexican Science Academy in the RCLAC 23, that would be held in Cartagena between 9<sup>th</sup> and 11<sup>th</sup> of April.

## DISASTER RISK REDUCTION MEETING

This past March 19<sup>th</sup>, Dr. Manuel Limonta, accompanied by Lic. Walter Navarrete, Assistant Minister of the Interior, traveled to Cuba for a series of negotiations and meetings to organize a visit to El Salvador of the National Commission of Cuba for Risk and Disaster Assessment.

In addition, they had a meeting with meteorologist Jose Rubiera, Director of the Meteorological Information Program in Cuba, with the purpose of discussing the possibility of a visit to El Salvador during a week to lecture on topics that lie within his expertise, and also to give a course with stakeholders about El Salvador’s weather information.

*1: “The Forensic Investigation of Disasters” (FORIN), Lavell, Smith. (2017)*



## VISIT OF CUBAN METEOROLOGIST EXPERT TO EL SALVADOR

From June 23<sup>rd</sup> to the 30<sup>th</sup>, Dr. José Rubiera, expert of the Cuban National Meteorology Institute visited El Salvador for a series of activities organized by the ISC ROLAC Secretariat in coordination with the Ministry of the Interior of El Salvador, and the Ministry of Natural Resources of El Salvador.

On his first day of the agenda, Dr. Rubiera had two field visits, one of them to the National Commission of Civil Protection, where he could talk about the 2018 Hurricane Season and the Cuban Experience on early alerts; and the other visit was to the Monitoring Center of Threats where he could see first hand the operation of the meteorological and hydrological monitoring and forecasting system of El Salvador.

Then, on June 26<sup>th</sup>, 2018, Dr. José Rubiera, expert of the Cuban National Meteorology Institute, gave a lecture on the topic "Prediction and monitoring of climatic phenomena and dissemination of hurricane information" at the Crown Plaza Hotel, in San Salvador, El Salvador. The activity gathered around 40 journalists and communicators from different media,

such as TV, newspaper, radio, digital platforms, and alike. The activity was co-organized by ICSU ROLAC, the Ministry of the Interior of El Salvador, and the Ministry of Natural Resources of El Salvador. The activity was inaugurated by Dr. Manuel Limonta, Regional Director of ISC ROLAC, the Minister of Governance, Lic. Aristides Valencia; the Vice Minister of Environment, Dr. Ángel Ibarra; and Lic. Jorge Melendez, director of Protección Civil. Dr. Limonta highlighted the interest of the ROLAC Secretariat to continue fostering activities such as this, in the frame of the Disaster Risk Reduction priority area. Then, Lic. Aristides Valencia, thanked all the organizers, and briefly explain how this activity was of great interest for the country. Soon after, Dr. Ángel Ibarra Vice Ministry of Natural Resources and Environment talked about the importance of the workshop in the frame the recent hurricanes disasters in the region. Finally, Jorge Meléndez, General Director of Protección Civil briefly explained about the work and actions that the institution has been taking during this kind of situations.

In his lecture, Dr. Rubiera highlighted the importance of an effective and efficient communication during a potential situation of disaster. He presented important techniques for the news anchors to disseminate this kind of information in order to maintain the receptors properly informed and aware of any emergency action to be taken.

Dr. Jose Rubiera gives a lecture at the University of El Salvador.



Finally, from the 27<sup>th</sup> to the 29<sup>th</sup>, Dr. Rubiera could participate in various TV channel interviews where he could provide information related to his area of expertise. He also had the chance to lecture different audiences such as representatives of Technical Commissions of the Civil Protection and professors and students at the University of El Salvador.

## DRR STEERING COMMITTEE MEETING

On October 22<sup>nd</sup> and 23<sup>rd</sup>, in Panama City, the ISC ROLAC Disaster Risk Reduction Steering Committee held its third scientific meeting. The meeting was organized in the parallel to the CILAC Forum (the Latin America and Caribbean Open Science Forum); and it was attended by Manuel Limonta, Regional Director of ISC ROLAC, Allan Lavell, Irasema Alcántara, Sálvano Briceño, Alonso Brenes, Patricia Gadaleta, José Rubiera, Virginia Jiménez, and Oscar Reyes.

In the morning of the first day of the meeting, attendees could discuss on aspects related to the structure and governance of the Steering Committee, such as a revision of Terms of Reference; and the appointment of Irasema Alcántara as the new chairwoman of the committee. It was also possible to hear from the members of the committee about activities undertaken in the DRR area since the last meeting of the group in San Salvador; and future activities as the launching of the FORIN (Forensic Investigation after Disasters) in various countries of the region.

It was possible to discuss on how to strengthen the collaboration with IRDR and programmes (FORIN, DATA, RIA, AIRDR), the IPO, ICoEs, national committees of the Americas (ICoE, FLACSO), and other regional and global programmes. Then, in the afternoon, it was possible to have a joint meeting between ISC ROLAC and the UNESCO DRR Group of Experts, opportunity that allowed an initial approach to both groupings to share the work done in the DRR area, current initiatives, challenges and possible future joint engagements.

On the second day of the meeting, in the morning session, it was possible to hear presentations regarding Disaster Risk Reduction, Recent Earthquakes in Mexico, and similarities with earthquakes in Argentina; and a follow-up on the report carried out by Virginia Jiménez concerning educational programmes in LAC related to DRR, and development of the website; a brief overview of SDGs, which were followed by a time for questions and answers.

Then, in the afternoon, it was possible to arrange a meeting with Raul Salazar, who is the Chief of the United Nations Office for Disaster Risk Reduction (UNISDR) Secretariat for the Americas based in Panama; and Nahuel García, from the same office. In this meeting, it was possible to strengthen previous

links of cooperation between our Secretariat, and it was agreed to continue fostering and finding common grounds of collaboration between ICS ROLAC and the UNISDR for the benefit of the region.

## VISIT OF MINISTER OF THE INTERIOR OF EL SALVADOR, TO CUBA

From December 10<sup>th</sup> to 14<sup>th</sup>, a visit to Cuba was made by Minister of the Interior Lic. Aristides Valencia, who was accompanied by Dr. Manuel Limonta.

The visit had the following objectives:

- Meeting at the Cuban CITMA to define the presence in El Salvador of the Cuban delegation to evaluate the DRR work of El Salvador and to specify the joint actions to be carried out later.
- Meeting and exchange with General Pardo Guerra, Chief of Civil Defense of Cuba.
- Exchange Meetings on territorial improvement of El Salvador.

During the visit to CITMA, Dr. Fernando Gonzales, the first deputy minister of this institution made a presentation on all environmental development in Cuba and described in detail the so-called Task Life,



which is the name of the program that is responsible for everything related to the settlement of populations and other aspects related to climate change and the rise in sea level. After this intervention, the projections and the actions to be carried out were discussed to concretize the start of the work in El Salvador of the Cuban commission for the evaluation of environmental problems.

In this meeting he defined the accomplishment of the visit of the Cuban delegation to be carried out in the month of March 2019, presided over by Dr. Fernando González.

Regarding the interest in the subject of territorial improvement, there were two meetings with Arq. Gina Rey, where aspects of interest for El Salvador were discussed and Minister Valencia asked different questions of interest in this topic, taking advantage of the experience of Cuba, addressing it from different points. A visit by Architect Gina Rey to El Salvador in March was also defined.

The next day a visit to the model of Havana was made by the minister, where he was joined by Architect Rey. The next day, the minister had a meeting with Gen. Pardo Guerra, where different aspects of the Salvadoran minister's interest in the topic of civil defense were discussed, and some agreements were made.

## TEACHING MATHEMATICS

ISC ROLAC has a unique priority area among the ISC family: Teaching Mathematics. 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 that sense, ISC ROLAC has carried out several activities promoting interaction among countries of the region, setting standards for mathematics teaching, building capacity on problem solving, and disseminating good practices among educational authorities in the region.

## REDUCING THE GENDER GAP IN NATURAL SCIENCES AND MATHEMATICS

The Regional Office for Latin America and the Caribbean of the International Council for Science (ISC ROLAC); the Ministry of Education of El Salvador (MINED); the Vice Ministry of Science and Technology of El Salvador; and the Committee for Women in Mathematics of the International Mathematica Union (CWM-IMU) co-organized the workshop entitled: "Global approach to the gender gap in the natural sciences and mathematics: How to measure it, and how to reduce it?" which took place in San Salvador, El Salvador on March 15th-16th, 2018.

The workshop addressed the problem of the gender gap in Mathematics and sought to share "good practices", define and propose concrete actions in the medium and long-term to significantly change the landscape of Mathematics in our Region.

The event was inaugurated by the Honorable Minister of Education from El Salvador, Ing. Carlos Canjura; ISC ROLAC's regional director, Dr. Manuel Limonta; and Dr. Liliam Álvarez, a member of the Cuban Academy of Sciences. The activity had the participation of relevant Latin American experts in gender and mathematics: Elizabeth Rincón, (Dominican Republic); Zelmira May (UNESCO, Uruguay); Ángela Camacho (Colombia); Gabriela Araujo (México) and Liliam Álvarez (Cuba). In addition to these presenters, Salvadoran teachers, researchers, and post-graduate students could participate in the workshop: Sara Vilma Rodríguez de Chicas, Claudia Patricia Corcio de Beltrán, Maritza Pleitez, and Ana Ester.

The workshop featured lectures on topics such



Dr. Lilliam Alvarez, Ing. Carlos Canjura, Minister of Health of El Salvador, and Dr. Manuel Limonta.

as: “Building bridges – educating girls and women in STEM”; “Women teachers of Mathematics in El Salvador. Presenting the current panorama”; “Mathematics is the Language of Physics”, amongst others. Debates, panels, discussions, group work, and presentations were also activities carried out in this activity, which had a two-day combined attendance of approximately 700 people, most of them teachers from various academic levels, and students related to natural sciences and mathematics. On day one of the workshop, the audience could hear lectures from Dr. Elizabeth Rincon, Dr. Zelmira May, Dr. Angela Camacho, and Gabriela Araujo. The morning session was moderated by Dr. Liliam Álvarez, while the afternoon session was moderated by Lic. Oscar Águila, and Ing. Jessica Martínez, in representation of the Ministry of Education of El Salvador.

While the second day started with an intervention of Dr. Gabriela Araujo who presented some videos which dealt with women in mathematics. Then the audience was split into three different groups and were given some time to discuss their experiences, best practices, common problems and challenges and alike. Then, representatives from each group were asked to present a summary of the discussions held in each group.

The workshop successfully gathered well-known and recognized math and gender experts with local authorities and math teachers and students, which allowed a bidirectional exchange of ideas, concepts, roles, challenges, and opportunities.

The workshop also allowed experts to provide their insights and recommendations for local authorities to reduce the gender gap between men and women in the natural sciences and mathematics, recommendations which could also be valid at the regional level.

The workshop was well-received by an enthusiastic audience and by the local authorities, fact that motivated experts to thank participants and encourage them to make whatever is within their possibilities to start reducing this gender gap. Finally, it was agreed that experts, local authorities, and ISC ROLAC would continue working and building upon the foundations set on this successful workshop.



# BIODIVERSITY

## SYMPOSIUM OF ANCESTRAL KNOWLEDGE, PUBLIC POLICIES AND KNOWLEDGE DIALOGUES

### MEETING AT THE NATIONAL SECRETARY OF CULTURE

On July 13th, 2018, Dr. Manuel Limonta, Claudia Marroquín, Gerardo Aldana, and Oscar Reyes, all members of the ROLAC Secretariat participated in a meeting at the National Secretary of Culture of El Salvador, with Lic. Margarita García and Lic. José Manuel Rivas, both from the Ministry of Culture of El Salvador, in order to have an early discussion about a workshop on indigenous knowledge to be held in San Salvador, El Salvador at the end of 2018.

In the meeting, Dr. Manuel Limonta briefly presented a list of possible experts to participate in the meeting, and some of the topics to be discussed in the workshop. In addition to this, it was agreed that the workshop would take place on December 5-7, 2018 in a place to be confirmed by authorities of the National Secretary of Culture of El Salvador.

The ISC ROLAC office, in collaboration with the Ministry of Culture of El Salvador, the National Autonomous University of Mexico (UNAM), the Vice Ministry of Science and Technology of El Salvador, the National Council of Science and Technology of Mexico, the University of El Salvador and the Thematic Network of the Biocultural Heritage of the UNAM, organized a Symposium on Ancestral Knowledge, Public Policies and Dialogue of Knowledge.

This event took place on December 5th, 6th and 7th in the Auditorium of the Faculty of Agronomy at the University of El Salvador, in San Salvador, El Salvador. A variety of activities were presented, such as high level presentations, debates, discussions and more.

One of the main objectives of this event was to bring together actors from Latin America immersed in cases of knowledge dialogues so that, through their experiences, they could reflect on aspects such as the analysis of the methodologies and conditions used to

Experts invited to the Symposium and ISC ROLAC Secretariat Representatives, Joya de Ceren, El Salvador.





undertake the dialogue of ancestral knowledge. It also managed to create a network of ancestral knowledge and knowledge dialogues, which was another of the main objectives of this symposium. The Symposium offered lectures by experts from different countries such as Bolivia, Mexico, Brazil, Ecuador, Panama, Venezuela and other countries of Latin America.

## INGSA

### International Network for Government Science Advice

This priority has just been added to our region. The purpose of this priority is to gather emerging and established scientists, policy makers and key actors living or working in Latin America and the Caribbean to enhance their capacity to provide scientific advice for policy-making at all levels of government.

#### FIRST INGSA CAPACITY BUILDING WORKSHOP IN THE CARIBBEAN

Kingston, Jamaica was the chosen location to hold the first Caribbean INGSA Capacity Building Workshop, which took place on the 20<sup>th</sup> and 21<sup>st</sup> of February 2018. The activity was attended by around 40 emerging and established scientists and policymakers from the Caribbean, as well as representatives from various science-promoting organizations such as UNESCO, The Royal Society, CDEMA, ISC ROLAC, and others.

On day one, the Honorable Minister of Science, Energy, and Technology, Dr. Andrew Wheatley opened the workshop by addressing attendees and welcoming them to this two-day workshop. Sir Peter Gluckman, Chief Science Advisor to the Prime Minister of New Zealand, lectured the audience on the topic "Principles & Structures of Science Advice".

Then, the audience was able to participate in a case study which was led by Prof. Fitzroy Henry, from the University of Technology. The objective of the case was to demonstrate that a single problem can have multiple and complex issues and perspectives which should not be ignored but rather explored and studied on the basis of scientific data. After the case study, Ronald Jackson, CDEMA executive director, had a presentation called "The Role of Science in Emergency Response and Management in the Caribbean".

Lidia Brito, Director for UNESCO Regional Bureau of Science for LAC, lectured on the topic "Aligning Science and Policy Development with the Sustainable Development Goals". Finally, Sir Peter Gluckman wrapped up the meeting and provided closing remarks for the day.

Day two of the workshop started with a lecture entitled "Science Advice in the Broader Context- Interactions with Public, Law, and Parliament" which was led by Dr. Julie Maxton, from the Royal Society.

Then, most of the second day was dedicated to an interactive activity in which the public was divided into three groups. Then, each person in the group was given a fictional government role that was supposed to play based on built characters and guidelines previously given by the organizers.

The central theme of the game was to understand how complex reality is when it comes to policy making and how science advice, as well as data, can play a central role for answering to key problems of today's society. ISC ROLAC was represented by Dr. Carlos Abeledo, Chair of the INGSA LAC Steering Committee, and by MA. Oscar Reyes, ISC ROLAC Science Officer.

## INGSA LAC STEERING COMMITTEE MEETING AND CAPACITY BUILDING WORKSHOP

INGSA Latin America, in partnership with Peru's Administración Nacional de Agua, the Departmental Council of Lima of the Peruvian Association of Professional Engineers (CIP- CD Lima), Investigación en Clima para la Acción (INCLIMA), and the Peruvian Council of Science, Technology and Innovation (CONCYTEC), organized a science advice capacity building workshop in Lima, held on September 3 and 4.

The workshop was designed to enhance capacities in providing science advice for policymaking at all levels of government, particularly in the area of hydrological risk management. The workshop sought the following objectives:

- Strengthen the capacities of scientists and policy makers to insert scientific advice in the process of public policies in multiple sectors (i.e., health, environment, natural resources, citizen security, among others)
- Linkage with the Latin American and Caribbean chapter of INGSA, (INGSA LAC), a network of actors in scientific advice that can serve as a platform to exchange good practices and for the challenges and solutions of the context of scientific advice in South America.

The activity had about 30 people in attendance. Some of the activities carried out were plenary conferences dealing with Science Advice to Governments, and Science and Policy in Risk Management, with an emphasis on Water Resources. In addition to the plenary sessions, participants were able to discuss over fictional cases which aim to prepare individuals to work at the science and policy interface. In all, three cases were covered: Terremotia (popular knowledge and understanding of risks); Jibaji (governance of hydric resources); Carboneria (competitive economic proposals based on technology for decision-making) INGSA LAC Steering Committee Meeting.

This meeting confirmed the current members of the INGSA LAC board of directors, evidencing the interest that each of them has in contributing to this work.

## INGSA CAPACITY BUILDING WORKSHOP ON SDG's

On October 26<sup>th</sup> -27<sup>th</sup> 2018, INGSA ran a Spanish language capacity building workshop in Panama City, Panama with the central theme of "Science Advice and the Sustainable Development Goals". The workshop had roughly 50 participants in attendance, who discussed on issues related to "Science Advice and the Sustainable Development Goals". The workshop was intended to reach scientists and policy practitioners living or working in Latin America to enhance their ability to provide science advice for policymaking at all levels of government.

The workshop had a variety of activities which included plenary lectures, group discussion and interactive learning tools, opportunities that permitted to explore the evidence to policy interface with a particular focus on providing science advice for the Sustainable Development Goals. The workshop had a wide representation from various countries including Mexico, Chile, Argentina, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Cuba, Canada and New Zealand.

Some of the key presentations were: The Complexity of Science Advice; Strengthening the nexus of science, policy and diplomacy to advance the SDGs; How can science advice to governments help unlock research for development in the global south; The challenge of the 2030 agenda for Science for Policy, technology and innovation. Key partners that made this workshop a reality were the International Development Research Centre (IDRC); The United Nations Educational, Scientific and Cultural Organization (UNESCO) The Institute for Scientific Research and High Technology Services

of Panama (INDICASAT) and La Secretaría Nacional de Ciencia, Tecnología e Innovación (SENACYT).

The ISC ROLAC Secretariat was represented by the participation of its regional director, Dr. Manuel Limonta; Dr. Carlos Abeledo, Chair of the INGSA LAC chapter; Carlos Olavarria, INGSA LAC steering committee member; MA. Oscar Reyes, INGSA LAC Regional Program Officer; and many more prominent scientists and stakeholders of the region.

### CAPACITY BUILDING WORKSHOP IN SAO PAULO, BRAZIL

This workshop was held on October 29<sup>th</sup> and 30<sup>th</sup> at the Institute of Mathematical and Computer Sciences at the University of Sao Paulo. The event counted with the participation of around 20 people, among them Carlos Abeledo, chairman of the steering committee of INGSA for Latin America and the Caribbean; Dr. Manuel Limonta, regional director of ISC ROLAC; Sergio Adorno, from the Nucleus of the Study of Violence; Guillermo Anllo, from the UNESCO-ROSTLAC office, Ennio Candotti, General Director of the Museum of the Amazon (MUSA); Jose Goldmberg, Former President of FAPESP.

They made presentations and exercises at this workshop, which were prepared by the INGSA authorities similar to the ones previously carried out in Panama, with the purpose of training participants in work scenarios as advisers in different situations of the governments of their countries of residence. The main participation was from Brazil and Uruguay, as well as a representation of 4 researchers from New Zealand.

### 3RD BIENNIAL CONFERENCE ON INTERNATIONAL SCIENCE ADVICE TO GOVERNMENT

On the 6<sup>th</sup> and 7<sup>th</sup> of November, The International Network for Government Science Advice (INGSA) hosted its 3rd biennial conference on International Science Advice to Government. The Conference took place at the National Graduate Institute for Policy Studies, in Tokyo, Japan.

The Conference drew policy professionals, leading practitioners, scholars, and industry representatives interested in the intersection and crossroads of science and policy. The conference explored the principles, practices, and dynamics of working at the science-policy interface, and the overarching theme of the conference was "Science Advise for a Changing World". Such theme encompasses the urgency of common challenges and global goals; the unprecedented speed of scientific discovery and application; and the shifting public view of both science and policy making in the emerging 'post-trust' society.

The conference sought to enable critical reflection and interdisciplinary dialogue on the practice and place; to support the operationalization of the SDGs by better understanding the role of science advice and evidence-informed policy in promoting them; and to consider strategies to further improve the provision of evidence-informed advice to public policy at all levels of government. All along the conference it was possible to go over issues such as: Science Advice in an era of Technological and Societal Transformation; The Future of Science Advice; The role of arts, humanities and the interpretive social sciences in advancing knowledge advice for the SDGs; Dealing with disaster - the role of science advice before, after, during; Smart cities - science advice for urban and urbanizing contexts; Big data transforming policy-making - what are the opportunities and challenges; and many more.

While the conference took place on the 6<sup>th</sup> and 7<sup>th</sup> of November, there were some satellite events prior and





INGSA Rapporteur Session, Tokyo, Japan.

subsequent to the conference. As for example, on the November 5th, INGSA headquarter representatives, INGSA regional chapters (ROA, ROAP and ROLAC), along with representatives from North America and Europe could discuss about past, present and future challenges and opportunities for INGSA. In this meeting, Dr. Carlos Abeledo, INGSA LAC chair, Dr. André Carvalho, member of the INGSA LAC chapter; and MA. Oscar Reyes, INGSA LAC Regional Program Officer, presented about the work done in the Latin America and Caribbean region, its plan of current activities, and possible future engagements. Then, on the 8th of November, other activities took place such as a Science in the Global South – LMIC Breakfast – Hosted by IDRC; INGSA Research Associate Workshop; Cities and Urban Science Advice Workshop; and a Parliamentary Advice Workshop.

## OPEN DATA

The Digital Revolution has created an unparalleled explosion in the capacity to obtain, store, use and immediately transmit complex data volumes, having of course a deep impact in science. Having such scenario before us, it prompts opportunities and challenges we have to face, and ISC ROLAC's response to that scenario is to push the Open Data agenda in the region as one of its priority areas.

## WORLD DATA SYSTEM

The World Data System Latin America and the Caribbean Scientific Data Management Workshop took place this past 17<sup>th</sup> and 8<sup>th</sup> April, at the Brazilian Academy of Sciences in Rio de Janeiro, Brazil. ISC ROLAC was one of the co-organizers and co-sponsor of the activity, and it was represented by Manuel Limonta, Regional Director; Juan Jaen, Regional Committee Chair; and Oscar Reyes, Science Officer; all part of ISC ROLAC.

This workshop convened by ISC-WDS aimed to discuss scientific data management best practices developed by research institutions in Latin America

and the Caribbean. It successfully mapped initiatives that are either underway or in the process of being developed, their strengths and limitations, and new opportunities for collaboration. In addition, future trends and perspectives for scientific data systems, as well as criteria and standards for certification of data repositories, were discussed.

The workshop also provided an excellent prospect to sightsee the data landscape in the LAC region and to understand the associated opportunities and challenges. Some of the topics discussed are listed as follows: New trends and future perspectives for scientific data projects; Global scientific data initiatives; Open data and open science trends and experiences; Latin American and Caribbean scientific data context and experiences; and many more.

The workshop was hosted by the Brazilian Academy of Sciences (ABC), and the Museum of Tomorrow, with the support of National Laboratory of Scientific Computation (LNCC), The Brazilian National Research and Education Network (RNP), the Brazilian Institute of Information in Science and Technology (IBICT) and the ICSU Regional Office for Latin America and Caribbean.

Open Data is one of the eight priority areas the ROLAC Secretariat (located and hosted by El Salvador) has adopted to develop within the region. Therefore, having participated in this activity aligns to the goals for the region, and most certainly has opened a way for future endeavors with ICSU-WDS, IANAS, TWAS, and the Brazilian Academy of Sciences.







# OTHER EVENTS



Dr. Barbara Gastel (middle) with attendants to the workshop, San Salvador, El Salvador.

## IV LATIN AMERICAN CONGRESS OF RESEARCH IN DIDACTICS OF EXPERIMENTAL SCIENCES

ISC ROLAC sponsored the participation of a group of Salvadoran experts in the IV Latin American Congress of Research in Didactics of Experimental Sciences, which took place from January 23<sup>rd</sup> to the 26<sup>th</sup>.

The congress had the objective of promoting research and teaching innovation in the teaching and learning of natural and experimental sciences in Latin America, the dissemination and reflection of core elements in the history, teaching and philosophy of science will provide tools, support and advice to teachers and students in the promotion of scientific thinking skills for a better citizenship.

## “SECOND WRITING JOURNAL ARTICLES AND GIVING PRESENTATIONS: SKILLS FOR SUCCESS” WORKSHOP

From August 8<sup>th</sup> to the 10<sup>th</sup>, The Regional Office for Latin America and the Caribbean of the International Council for Science (ISC ROLAC) and N-CONACYT organized the Second Writing Journal Articles and Giving Presentations: Skills for Success Workshop which aimed to give researchers in El Salvador the knowledge and skills needed to communicate their research internationally.

The workshop was conducted by Barbara Gastel, a physician specializing in biomedical writing and editing. She is professor of integrative biosciences, humanities in medicine, and biotechnology at Texas A&M University. The activity had great acceptance and included the participation of approximately 30 people amongst them researchers, governmental institution representatives as well as public and private university representatives.

This 5-day workshop had mix of lectures, discussions and exercise. In that sense, participants were able to hear the up-to-date theory on writing scientific articles and also put that theory into practice by conducting individual, pair and group discussions and exercises.

## IMMUNOLOGY SCIENTIFIC EXCHANGE IN EL SALVADOR

The ISC ROLAC office invited Dr. Oliver Pérez, who is the President of the Latin American Association of Immunology, to hold a series of lectures from August 13th to August 15th; the first one being about “Immunology in pre and postgraduate and psychoneuroendocrinoimmunology as a regulatory suprasystem”, which happened at the Rosales National Hospital in San Salvador. It was attended by many heads of medicine departments, doctors, and medicine students.

On his second day, he lectured on the topic “Immunology in Latin America and the world and Psychoneuroendocrinoimmunology as a regulatory suprasystem” in a jointly effort with the Ministry of Health and the National Institute of Health (INS by its name in Spanish) at INS’ facilities.

On the afternoon of the same day, he hosted a Q&A session with the participants of the lecture. Lastly, he had another lecture at the University of El Salvador (UES) called “Dynamics of the immune response as the law of Immunology, Immunology as a preventive and transdisciplinary science”, which was attended by UES’ medicine students and faculty members.

## DR. FRANCISCO COLL VISIT

At the request of the Vice Ministry of Science and Technology, Dr. Francisco Coll, a specialist in natural product chemistry, visited El Salvador. With this visit it has been possible to identify the need of the agricultural sector for basic grains, sugarcane and coffee to have measures that allow them to counteract the effects of climate change, especially those related to water stress and low productivity of crops.

It has also been established that there is a growing interest in the use of organic and biological products that do not have the harmful side effects of the widely used chemical products that currently dominate the market. In this sense, the opportunity has opened in El Salvador to establish a laboratory for the development and development of the latest generation of plant phyto-hormones, a product with high added value that would allow the country to help the development of the agricultural sector.





# ISC FAMILY

## 1st REGIONAL OFFICES MEETING

ISC headquarters and its three regional offices (ROA, ROAP, and ROLAC) had the chance to meet for the first time after ICSU's general assembly which also included the participation of the International Social Science Council. The meeting started in the afternoon of April 10<sup>th</sup> and concluded on April 12<sup>th</sup>, 2018.

- The meeting had three main objectives:
- To inform regional offices and regional committee chairs about the approaching merger of ICSU and the ISSC and the high-level strategy of the International Science Council.
- To understand the similarities and differences between the ICSU regional offices and the European grouping of ICSU members, including in relation to the ISSC's regional set-up.
- To gain insight into the various aspirations, goals, and capacities of the regional offices as well as obstacles facing them, and to identify near-term priorities, opportunities, and challenges for the ISC.

On the first day of this meeting, participants could hear an introduction to ISC high-level strategy; and an overview of current regional strategies of ICSU and ISSC. Then, Regional Offices could present their mission, objectives, activities, priorities, challenges, opportunities (current and near-term), and how they work: structure, relations with ICSU members, partnerships, and alike.

Then on the second day of the meeting, participants could hear Juerg Pfister (Via Skype), Secretary General of Swiss Academy of Sciences (SCNAT), who provided input on the European model of organizing its ICSU members and their mode of co-operation. Finally, on the last day of the meeting, all participants engaged on visioning and brainstorming towards a regional strategy for the new International Science, focusing on new processes, coordination and collaboration across HQ and ROs, role and expectations of each of the parties, measures of success, and alike.

In conclusion, this meeting represented a strategic success since it allowed ICSU HQ, along with its three regional offices, and the ISSC to have a first face-to-face encounter in order to initiate dialogue and learn from each other. The meeting has certainly set a starting point for the new International Science Council to set ground basis on the new strategy, taking into consideration perspectives, challenges, and opportunities from all involved participants. Finally, it was agreed to continue the communication within the group in order to further advance towards the goal of being the global voice for science.





ISC ROLAC Secretariat with members of ISC ROA and ISC ROAP, San Salvador, El Salvador.

## SECOND ISC REGIONAL OFFICES MEETING

The ISC regional offices (ROA, RO AP, and ROLAC) met in San Salvador, El Salvador from August 12<sup>th</sup> to the 14<sup>th</sup>. The objectives of the meeting were: To continue discussions regarding the new ICSU-ISSC merger and the high-level strategy of the International Science Council in the frame of the Regional Offices Strategy; to exchange into the various aspirations, goals and capacities of the regional offices as well as obstacles facing them, and to identify near-term priorities, opportunities and challenges for the ISC; and to pool ideas to take forward to the governing bodies of the ISC around regional strategy, for example: member relations, including outreach and recruitment; ensuring members' input into the global strategy; forging or strengthening partnerships; objectives and measures of success of a regional strategy; and alike.

This meeting was extremely important for the work all regions, taking into consideration the recent

merger between the International Science Council (ICSU); and the International Council for Social Sciences (ISSC). On the first day of the meeting, it was possible to discuss on issues related to the follow-up of the previous meeting; challenges and opportunities; added value of regional structure; cross-regional collaboration; Proposal of joint efforts across regions; Cross-regional communication channels, and periods.

On the second of the meeting, Regional Offices representatives could present about successful programs in their regions, as for example, INGSA (International Network for Government Science Advice); Disaster Risk Reduction (DRR); Urban Health; Teaching of Mathematics, and others. In addition to this, participants were also able to hear Dr. William Mejia, from the Vice Ministry of Science and Technology, talk about science and technology advances in El Salvador. Finally, on the third day, attendees discussed about the agreements held; and also, about recommendations arising from the three-day meeting.





# GOVERNANCE



## ISC ROLAC Regional Committee

ISC ROLAC has a regional committee composed of recognized scientists of the region, meeting requirements such as gender, area of knowledge, nationality, among others, in order to be fair and inclusive. The regional committee is responsible for providing guidelines for the work of the office in the region, and at the same time is responsible for ensuring that these guidelines are carried out.

Through the experience and connection networks of its members, the office extends its influence in the scientific and technological work of the region. For the first semester, the regional committee of ISC ROLAC for the year 2017 constituted by the following scientists: Dr. Juan Jaén (Outgoing Chairman of the Regional Committee); Dr. Liliam Álvarez; Dr. Ana Rada (Incoming Chairwoman of the Regional Committee); Dr. Elisa Reis; Dr. Hernán Thomas; Dr. Germán Poveda; Dr. Kit Fai Pun; and Dr. Paloma

González (liaison). Then in the second semester Dr. Ernesto Marinero is included, it is a response to the interest of the office for El Salvador to have a greater presence, and the name proposed by the Vice Ministry of Science and Technology, a proposal that was well received and approved.

The members of the regional committee meet twice a year, in different countries of the region. It should be mentioned that since the office was established in El Salvador, it was agreed to hold one of the two meetings in El Salvador, with the purpose of favoring El Salvador with these meetings and the presence of these specialists. In these meetings, issues related to the work of the office in the different priority areas, outreach activities, among others are discussed. Likewise, there are reports of an administrative nature, and communications from the office. At the end of each of these meetings, two documents are written: the minutes of the meeting, and the list of agreements taken. Following is a brief summary of the meetings held in 2018.

ISC Headquarters and Regional Offices; ISSC; ROLAC Focal Points and Regional Committee, Cartagena de Indias, Colombia.



## ISC ROLAC Regional Committee



German Poveda - National University of Colombia (Colombia)

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Ana Rada Tarifa - Faculty of Medicine, Mayor de San Andres University (Incoming Chairwoman) (Bolivia)

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Hernán Thomas - Instituto de Estudios sobre la Ciencia y la Tecnología (IESCT-UNQ) (Argentina)

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Elisa Reis - Federal University of Rio de Janeiro (Brasil)

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Liliam Álvarez - Cuban Academy of Sciences (Outgoing Member) (Cuba)

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Kit Fai Pun - The University of the West Indies (Trinidad y Tobago)

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Juan Jaén - Panamanian University (Outgoing Chairman) (Panamá)

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Paloma González (Liaison) - Universidad Autónoma de Madrid (España)

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Ernesto Marinero - Purdue Univeristy (El Salvador)

## 23<sup>RD</sup> REGIONAL COMMITTEE MEETING

Cartagena de Indias, Colombia was the chosen location to hold the 23rd ISC ROLAC Regional Committee Meeting (RCLAC23). The RCLAC23 took place on April 9<sup>th</sup> and 10<sup>th</sup>. These meetings were organized by the ISC Regional Office for Latin America and the Caribbean, along with the important support of the Colombian Academy of Sciences, and ISC headquarters. The meetings were attended by ISC ROLAC's Regional Committee Members, Focal Points, and Secretariat; Regional offices of Africa and Asia; ICSU Headquarters, ISSC Representatives, and various experts, listed later on this article.

Besides having the presence of 5 regional committee members: Juan Jaen, Liliam Alvarez, Ana Rada, German Poveda, and Paloma González (liaison), many ICSU ROLAC's focal points could also participate: Enrique Forero, Fabio Zuluaga, Yobai Velazco, and Marcela Macias (Colombia); Carmen Samayoa (Guatemala); Mario Lanza (Honduras); Pedro Leon Azoifeifa (Costa Rica); Jorge Tezon (Argentina); Luis Schecker (Dominican Republic); Ana Pastor (Peru); Janzel Villalaz (Panama); Carmen Cisneros (Mexico); and Erlinda Hándal (El Salvador). In addition to these two groups, the meeting also welcomed participants from ICSU ROA, ICSU ROAP, ICSU HQ, the International Social Science Council, Marcos Cortesao (Brazilian Academy of Sciences); and Marta Losada (International Center for Theoretic Physics -ICTP).

This important meeting aimed at (1) having a further understanding of the ICSU-ISSC merger, and its implication to the ROLAC and its focal points; as well as (2) creating a forum to analyze and discuss ICSU ROLAC's priority areas and programs for the region. On the first day of this activity, Enrique Forero, President of the Colombian Academy of sciences; Heide Hackmann, ICSU's Executive Director; and Manuel Limonta, ICSU ROLAC's Regional Director welcomed all participants to the meeting and briefly explained the importance, and relevance of it.

Then, all participants introduced themselves, and the agenda was adopted with some minor changes. Then, all participants could hear Heide Hackman inform members of the Committee and focal points about the recent merger between ICSU and the ISSC. Her presentation was later followed by Q/A session in which all participants could express themselves and ask for further information regarding the said merger. Soon after, participants could hear various presentations about ICSU ROLAC's priority areas and programs: Open Data (Jorge Tezon); Scientific Diaspora (Manuel Limonta); INGSA (Oscar Reyes); and Teaching of Mathematics (Liliam Álvarez).

Day one concluded with a presentation of the Vice Minister of Science and Technology of El Salvador, Dr. Erlinda Hándal, who presented an update of the advance of Science and Technology in El Salvador, and opportunities for interaction and cooperation with El Salvador. Dr. Hándal's presentation was highly welcomed and congratulated for the great efforts and advancement of STI in El Salvador.

On the second day of the meeting, Franz Gatzweiler, executive director of the global interdisciplinary programme on "Health and Wellbeing in the Changing Urban Environment: A Systems Analysis Approach" presented about Urban Health's program past, present and future initiatives for the ROLAC region. Then, Manuel Limonta presented about activities carried out in all priority areas, and also about outreach activities. Soon after, the communications and financial report were presented.

Finally, before wrapping up the meeting, a series of formal points were addressed, such as follow up on decisions from last RCLAC, agreements reached, recommendations from general discussions, and alike. In conclusion, this one-and-a-half-day meeting successfully updated all participants about the ICSU-ISSC merger, and ICSU ROLAC's priority areas and programs. In addition to this, the meeting provided all participants the perfect opportunity to interact and find common ground areas for present and future joint endeavors.



## 24<sup>TH</sup> REGIONAL COMMITTEE MEETING

ISC ROLAC held its 24th Meeting of the Regional Committee. The meeting was held on November 15<sup>th</sup> and 16<sup>th</sup>, in San Salvador, El Salvador. The meeting was attended by the following members: Dr. Juan Jaén, Dr. Lilliam Álvarez, M.Sc. Ana Rada, Dr. Paloma González; Dr. Kit Fai Pun and Dr. Ernesto Marinero.

The following members of the ISC ROLAC Secretariat also participated in the meeting: Dr. Manuel Limonta, Licda. Claudia Marroquín, Lic. Bertila Juarez, Lic. Gerardo Aldana and MA. Oscar Reyes. In addition to the attendees mentioned above, recognized experts were invited to the meeting: Dr. Erlinda Hándal, Vice Minister of Science and Technology of El Salvador. It was also possible to have online communication with Dr. Elisa Reis, member of this committee and new vice-president of the ISC.

On the morning of the first day of the meeting, the participants of the Regional Committee and the guests were welcomed, and then the agenda of the meeting was approved without major changes. Shortly after this, Dr. Manuel Limonta presented to the attendees about the activities in the priority areas and also outreach activities in the April 2018-October 2018 period. During the presentation, the members of the regional committee could direct the questions to the presenter and further analyze the details when necessary. Then, the minutes and

the decision list of the previous meeting (RCLAC23) were approved, and a draft of the business plan for 2019 was presented and discussed. Then, the attendees could briefly discuss about a series of documents prepared by the ROLAC Secretariat, which were requested by the ISC headquarters. Such documents were a SWOT analysis, a mapping of Science and Technology Organizations of the Region; and a Mapping of Regional and Global Funders. Later in the afternoon, the regional committee acknowledged the work done by outgoing members of the regional committee, Juan Jaén and Lilliam Álvarez; and thanked them for their contribution to the committee in the last six years. Soon after this, by proposal of Lilliam Álvarez, and with all the votes of the attending members, M.Sc. Ana Rada was elected the new Chairwoman of the committee. Finally, it was possible to have a communication with Elisa Reis, new vice-president of the International Science Council (ISC), who briefly provided an update about actions taken after the merger, and new horizon for the organization.

The second day of the meeting began with the presentation of the work done in the communications area of the office, and also about the financial area of the office. After this, agreements of the meeting were read, and further suggestions were given to be incorporated into the minutes of the meeting. Finally, the president, Juan Jaén and Manuel Limonta concluded the meeting by thanking all the attendees.

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ISC Regional Offices Meetings, San Salvador, El Salvador.







# OUTREACH



## IAP/IANAS REGIONAL WORKSHOP ON THE SDGs

This past May 29th and 30th, Mexico was host to the first of four regional events, working with the IAP regional networks under the three-year IAP project “Improving Scientific Input to Global Policymaking”.

The project is endeavoring to mobilize leaders in science, engineering and medicine to better engage on the SDGs;

These four workshops are:

- IANAS (Americas)
- EASAC (Europe)
- NASAC (Africa)
- AASSA (Asia)

Objectives of our workshop IANAS (Americas)

In consultation with the IANAS Co-Chairs and Secretariat, the following objectives were identified.

- to better understand the SDGs and consider how the academies can best support them, focusing on shared challenges across all goals, those goals most pertinent to the region, those on which academies have some experience, and/or those being reviewed by the UN1 in 2018;
- to share national and regional experiences - opportunities, challenges, lessons learned, good practice - including from those academies who have researched and/or engaged in their Voluntary National Review 2 processes;
- to identify priority knowledge gaps (science-for-policy or policy-for-science) where stronger intervention is most needed (this could help define future work programmes for the academies, subject to funding);
- to develop voluntary regional action plans/roadmaps for how IANAS members could work

Together to support the SDGs to 2030 and translating this at national level; this could inform IANAS’ next Strategic Plan and the focus of its AGM next year.

In the preparation for the workshop, participants were asked to give some thought to the following issues:

- what you would like to get out of this workshop;
- what, if anything, your academy has been doing on the SDGs at national level or
- how it may be planning to support them: please come prepared to talk about this,
- how you have engaged with relevant parts of your policy and research systems,
- what you have learned from this process;
- the main barriers and opportunities for engaging on the SDGs, and how IANAS members can work together to overcome barriers and maximize opportunities;
- to what extent the SDGs should feature in IANAS’s next Strategic Plan, 2019
- onwards; what a “roadmap” for IANAS engagement and cooperation might look like (this could enable academies to better identify and review their initiatives,
- improve coherence and build progressively on these efforts);
- how you think your academy might be willing to engage with the SDGs in future, at national and/or regional levels;

Background reading was offered in order to familiarize participants with the content and objectives of the meeting and to facilitate the understanding of the discussions in said meeting.

## INFOD INAUGURATION

Dr. Manuel Limonta, Regional Director of ISC ROLAC attended to the inauguration of the National Institute for Teacher Training (INFOD by its Spanish acronym), activity held on June 22<sup>nd</sup>, in San Salvador, El Salvador. The activity was presided by the Honorable President of El Salvador, Prof. Salvador Sánchez Cerén, and the Minister of Education, Ing. Carlos Canjura.

INFOD was created by legislative decree in February 2018 with the concurrence of all political factions, as an institution of higher education, public law, with legal

personality and own assets.

The main objective of this institute is to strengthen the processes of initial and permanent training of professionals for the exercise of the teaching career. The ultimate goal is to ensure educational quality through the application of pedagogical methods, technological and research at the highest academic and scientific level. The main prioritized work lines are:

- Training and certification system
- Curriculum development and innovation
- Training for the development of national capacities
- Educational investigation
- Permanent with the sectors and establishment of strategic alliances.

ICSU ROLAC has carried out various activities with the Ministry of Education of El Salvador, including workshops regarding mathematics teaching standards, and gender equality in sciences; as well as organizing meeting with high-level experts in mathematics.

## LAUNCHING OF THE ALERTA MAGAZINE

The National Institute of Health of El Salvador and the Ministry of Health (MINSAL), together with the Spanish International Cooperation Agency for Development in El Salvador, officially presented the digital magazine Alert on June 26<sup>th</sup>, with the purpose of promoting health research in El Salvador, which can be a new important and essential source of knowledge for the health personnel in the country.

The implementation of this new digital magazine will also be reflected for the benefit of the population, because the content will be taken by different doctors, specialists, nurses and other personnel to be put into practice with the patients who day after day attend for a health service, which is currently free.

The publications will be twice a year and they will be provided by people from the Health area mainly, but with

participation of other areas related to health as well.

It should be noted that the action is developed within the framework of Plan 10, executed by the Government of President Salvador Sánchez Cerén, to improve the living conditions of Salvadorans.

The head table was composed by the Minister of Health, Violeta Menjívar; Manuel Limonta, ICSU ROLAC's regional director; Ernesto Pleitez, vice president of the INS; Mrs. Eugenia Carrascal, Project Manager of the Spanish International Cooperation Agency; and Nadia Rodríguez, editor of the Alerta magazine.

Dr. Manuel Limonta was the keynote speaker, and he lectured on the topic "Scientific Research in Latin America". While his intervention, Dr. Limonta mentioned how scientific research is a must do in order to get economical development in any country. He also mentioned that while scientific research has been someone been neglected in the region, efforts such as the launching of this magazine were steps to change the current status quo.

## OPEN SCIENCE FORUM FOR LATIN AMERICA AND THE CARIBBEAN (CILAC)

The Wyndham Albrook Mall Hotel, in Panama City, Panama was the chosen venue to hold the Second Open Science Forum (CILAC), event that took place from October 22<sup>nd</sup> to the 24<sup>th</sup>.

The Forum had the participation of about 200 specialists in science, innovation, business advancement, and policymaking from more than 25 countries, with the purpose of creating joint strategies in order to help the region to reach the Sustainable Development Goals set by the 2030 Agenda.

CILAC had more than 100 activities, in addition to more than 20 parallel events and activities. The

event had three main topics: Sustainable Cities; New Bio-economies; and Resilient Territories. Some of the main lectures were: S&T Development and Sustainable Cities: Public Politics and Production of Knowledge; IA in Smart Cities; Science Diplomacy in Latin America; Open Science; Mechanisms of Adaptation to Climate Change; Bioeconomy Initiatives in LAC; and many more.

Dr. Manuel Limonta, ISC ROLAC Regional Director, was invited to participate as panelist in the Regional cooperation in STI and sustainable development roundtable, which took place on October 23rd. The roundtable was set in the frame of the rapidly changing world, making emphasis that It is necessary to advance on cooperation agreements regarding to science, technology and innovation, to facilitate the joint progress of humanity, rethinking the institutional and financial infrastructure that fosters cooperation and collaboration in STI projects, to sustain trips, internships, conference cycles, joint programs, visits to other countries, and other similar things.

The forum had its first edition in Montevideo in 2016, organized by the Regional Office of Sciences of UNESCO for Latin America and the Caribbean, is a regional space for the exchange of ideas and experiences on challenges and opportunities in science, technology and innovation.

The main objective is to create a dynamic and inclusive space to contribute to the implementation of the 2030 Agenda and the Sustainable Development Goals, by strengthening the scientific and technological capabilities of the countries of Latin America and the Caribbean.

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ISC ROLAC DRR Steering Committee and UNESCO's DRR Steering Committee, Panama City, Panama







Outgoing TWAS President Chun Li Bai (center) and participants in the 14th TWAS General Conference, Trieste, Italy.

## TWAS 14<sup>TH</sup> GENERAL CONFERENCE & 28<sup>TH</sup> GENERAL MEETING

The meetings in Trieste were held between November 26<sup>th</sup> and November 29<sup>th</sup>. On the 26<sup>th</sup>, the council meeting was held where aspects related to all the work of the academy were discussed.

The minutes of the previous meeting, the membership, the funds, the general agenda, and the whole program of the TWAS General Assembly were analyzed. The meeting was chaired by the president of TWAS, Chunli Bai; Romain Murenzi, executive director; Ajay K. Sood, General Secretary, and the rest of the members. The list of participants to the general meeting was made of 300 academics and officials from around 60 countries. Chunli Bai, who is also president of the Chinese Academy of Sciences, announced that this was the end of his second term, and that TWAS Professor, Muhammad H. Hassan, would be the new president.

This academy currently has more than 1,200 members elected from more than 90 countries and territories;

14 of them have won the Nobel Prize, and about 85% come from developing nations. In the framework of this meeting, different scientific papers corresponding to the winners of different prizes that are delivered in the TWAS were presented.

Also, the new elected members of TWAS, as well as the TWAS-Young Fellows were introduced. TWAS Young Fellows are scientists up to 40 years old who are accepted into TWAS and who maintain their membership for 5 years.

At this meeting, it was agreed to hold the general assemblies every two years, and to hold the council meetings annually.

Another important thing that happened was that Dr. Manuel Limonta was chosen as Vice President of TWAS in charge of Latin America.



# ABOUT ISC ROLAC



The International Science Council (ISC) is a non-governmental organization with a unique global membership that brings together 40 international scientific Unions and Associations and over 140 national and regional scientific organizations including Academies and Research Councils.

Our mission is to strengthen international science for the benefit of society. To do this, ISC mobilizes the knowledge and resources of the international science community.

The Regional Office for Latin America and the Caribbean was founded in 2007 in Brazil, then it moved to Mexico where it remained for five years until mid-2016 when it moved to San Salvador, El Salvador for a period of five years. Under the leadership of the Regional Director, the secretariat co-ordinates and implements the scientific activities of the Regional Committee.

It also acts as liaison to ISC headquarters in Paris.

From ISC's National Members, 17 are from Latin America and the Caribbean. The eight regional priorities are:

- Sustainable Energy
- Disaster Risk Reduction
- Mathematics Education
- Biodiversity
- Urban Health
- Open Data
- INGSA
- Scientific Diaspora

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

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[council.science/regions/rolac](http://council.science/regions/rolac)

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-  LinkedIn: ISC ROLAC

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Director

Manuel Limonta, Prof. Ph.D.

Science Officer

MA Oscar Reyes

Administrative Officer

Lic. Bertila Gonzalez

Liaison Officer

Lic. Claudia Marroquín

Communications Officer

Lic. Gerardo Aldana



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Science Council**

Regional Office for Latin  
America and the Caribbean

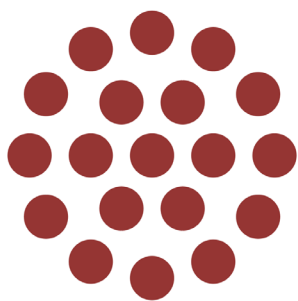
## Financial Summary

DESCRIPTION	BUDGET(USD)	EXPENSES(USD)
General Services and Housing	288,843.96	288,843.96
Consulting	3000.00	3000.00
Travel and Travel Expenses	259,688.40	189,583.74
Administrative Expenses	16,000.00	8,098.20
Basic services	<u>20,968</u>	<u>19,893.54</u>
	588,500.36	509,419.44

The execution of the expenditure for this period was 86% for 2018, its execution has been satisfactory since the objective of carrying out all the activities programmed according to the Business Plan 2018 of ISC ROLAC was achieved, allowing to participate in other activities or events of interest for the office in the promotion of science in the Latin America and the Caribbean Region.







# International Science Council

Regional Office for Latin  
America and the Caribbean

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

Members have access to the restricted Member Zone of the ISC website and to the ISC databases. Members have access to the activities and services of different committees of ISC, 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 ISC.

Members gain the prestige provided by the ISC umbrella.

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

ISC's International Scientific Unions and National Scientific Members meet every three years in the ISC 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.

## INTERDISCIPLINARY BODIES

### Thematic Bodies

COSPAR Committee on Space Research  
IRDRI Integrated Research on Disaster Risk  
SCAR Scientific Committee on Antarctic Research  
SCOR Scientific Committee on Oceanic Research  
SCOSTEP Scientific Committee on Solar-Terrestrial Physics  
URBAN HEALTH

Global Environmental Changes Programmes  
Future Earth: Research for Global Sustainability  
WCRP World Climate Research Programme

### Monitoring/ Observation Bodies

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

### Data and Information Bodies

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

### Data and Information

ISC World Data System (WDS)  
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)

## SCIENTIFIC ASSOCIATES

AAS African Academy of Sciences  
AASSA Association of Academies and Societies of Sciences in Asia  
CIE Commission Internationale de l'Eclairage  
IASC International Arctic Science Committee  
IAHR International Association of Hydraulic Engineering and Research  
ICA International Commission for Acoustics  
ICO International Commission for Optics  
ICIAM International Council for Industrial and Applied Mathematics  
ICLAS International Council for Laboratory Animal Science

ICSTI International Council for Scientific and Technical Information  
IFIP International Federation for Information Processing  
IFLA International Federation of Library Associations and Institutions  
IFSM International Federation of Societies for Microscopy  
FIG International Federation of Surveyors  
IFS International Foundation for Science  
IIASA International Institute for Applied Systems Analysis  
ISDE International Society for Digital Earth  
IUVSTA International Union for Vacuum Science, Technique and Applications  
IWA International Water Association  
PSA Pacific Science Association  
4S Society for Social Studies of Science  
TWAS The World Academy of Sciences  
UIS Union Internationale de Spéléologie

## SCIENTIFIC UNIONS

The 31 International Scientific Union Members provide the disciplinary backbone of ISC. 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.

AU International Astronomical Union  
IBRO International Brain Research Organization\*  
ICA International Cartographic Association  
IGU International Geographical Union  
IMU International Mathematical Union  
INQUA International Union for Quaternary Research  
ISA International Sociological Association  
ISPRS International Society for Photogrammetry and Remote Sensing  
IUAES International Union of Anthropological and Ethnological Sciences\*  
IUBS International Union of Biological Sciences  
IUCr International Union of Crystallography  
IUFoST International Union of Food Science and Technology  
IUFRO International Union of Forest Research Organizations  
IUGG International Union of Geodesy and Geophysics  
IUGS International Union of Geological Sciences  
IUHPST International Union of History and Philosophy of Science and Technology  
IUIS International Union of Immunological Societies  
IUMRS International Union of Materials Research Societies  
IUMS International Union of Microbiological Societies  
IUNS International Union of Nutritional Sciences  
IUPAB International Union for Pure and Applied Biophysics  
IUPAC International Union of Pure and Applied Chemistry  
IUPAP International Union of Pure and Applied Physics  
IUPESM International Union for Physical and Engineering Sciences in Medicine



IUPHAR International Union of Basic and Clinical Pharmacology  
IUPS International Union of Physiological Sciences  
IUPsyS International Union of Psychological Science  
IUSS International Union of Soil Sciences  
IUTAM International Union of Theoretical and Applied Mechanics  
IUTOX International Union of Toxicology  
URSI Union Radio Scientifique Internationale

## ISC National Members in LAC

ISC has 123 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 ISC activities. They also play an important role in facilitating links with national governments and science agencies

Argentina, National Scientific and Technological Research Council (CONICET)  
Bolivia, Academia Nacional de Ciencias de Bolivia (ANCB)\*\*  
Brazil, Academia Brasileira de Ciências (ABC)  
Caribbean, Caribbean Academy of Sciences (CAS)\*  
Chile, Academia Chilena de Ciencias  
Colombia, Academia Colombiana de Ciencias Exactas, Físicas y Naturales (ACCEFYN)  
Costa Rica, Academia Nacional de Ciencias (ANC)  
Cuba, Academia de Ciencias de Cuba  
Dominican Republic, Academy of Sciences of the Dominican Republic  
El Salvador, Viceministerio de Ciencia y Tecnología de El Salvador  
Guatemala, Academia de Ciencias Médicas Físicas y Naturales de Guatemala\*  
Jamaica, Scientific Research Council (SRC)\*\*  
Mexico, Academia Mexicana de Ciencias (AMC)  
Panama, Universidad de Panama  
Peru, Academia Nacional de Ciencias (ANC)  
Uruguay, Comisión Consejo Nacional de Innovación Ciencia y Tecnología (CONICYT)  
Venezuela, Fondo Nacional de Ciencia, Tecnología e Innovación\*\*

\*National Associate

\*\* National Observer

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