



ICSU

International Council for Science

Regional Office for Asia and the Pacific

Annual Report 2014



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CONTENTS

ICSU VISION AND MISSION	1
MESSAGE FROM THE CHAIR OF THE REGIONAL COMMITTEE	2
MESSAGE FROM THE DIRECTOR	3
EVENTS IN 2014	4
PLANNING, COORDINATING AND PROMOTING RESEARCH	8
Health & Wellbeing in the Changing Urban Environment	8
• Short Course on Urbanization and Health: Systems Approaches	8
• Executive Workshop on Co-production of Knowledge for Global Health Challenges	8
• ICSU ROAP and Academy of Sciences located in Taipei Workshop on Systems Thinking	9
• Xiamen Expert Workshop on Health and Wellbeing in the Changing Urban Environment: A Systems Analysis Approach	9
• Systems Thinking Workshop for Development of an Urban Air Quality and Public Health Project	10
Hazards and Disasters	10
• Planning the next advanced institute in Asia on psychological intervention after disasters	10
• Meeting of ROAP Natural Hazards and Risk Steering Group	12
• Mianyang Workshop on Psychological Intervention after Disasters in China	12
Sustainable Energy	14
• 6 th International Conference on Applied Energy	14
FUTURE EARTH IN ASIA AND THE PACIFIC	16
Development of Future Earth in Asia and the Pacific	16
SIMSEA the ROAP initiative for Future Earth	19
REGIONAL NETWORKING	24
Science and Technology in Society forum in Singapore	24
Science Council of Asia	24
International Workshop on Open Data for Science and Sustainability in Developing Countries	25
GOVERNANCE	28
17 th Meeting of Regional Committee	28
18 th Meeting of Regional Committee	28

ICSU IN THE ASIA AND THE PACIFIC	31
Regional Committee for Asia & the Pacific	32
Secretariat	33
FINANCIAL SUMMARY	35
MEMBERSHIP OF ICSU	36
National Members	37
Scientific Unions	40
Interdisciplinary Bodies	41
Scientific Associates	42

ICSU VISION

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

ICSU MISSION

ICSU mobilizes knowledge and resources of the international science community for the benefit of society, 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 in the international scientific endeavour, regardless of race, citizenship, language, political stance and gender
- Provide independent, authoritative advice to stimulate constructive dialogue between the scientific community and governments, civil society and the private sector





MESSAGE FROM THE CHAIR OF THE REGIONAL COMMITTEE

In 2014, one could say, the ICSU Regional Office for Asia and the Pacific (ICSU ROAP), and the ICSU Regional Committee for Asia and the Pacific (RCAP), were in the thick of implementation of the ICSU Strategic Plan 2012-2017, and in developing Future Earth in Asia-Pacific.

During the 31st ICSU General Assembly in Auckland, New Zealand, the achievements of ICSU ROAP, particularly the programme on Health and Wellbeing in the Changing Urban Environment, and in Natural Hazards and Risk were noted. At the same time, report was also made of a new initiative under the Future Earth research framework, the Sustainable Initiative in the Marginal Seas of South and East Asia (SIMSEA) that was introduced to ICSU National Members, Unions, and Interdisciplinary Programmes.

Future Earth, a major new programme on research for global sustainability is now rapidly moving into full implementation. The marginal seas of Asia and the Pacific are hot spots with extensive and serious human-induced changes that needs to be reconciled. New knowledge about processes and systems regulating the stability and resilience of the Earth systems and the interactions of land, ocean, atmosphere and life, will provide us with understanding upon which our societies depend for

future sustainability. ROAP is also stepping up its communication and engagement with institutions and organizations in Asia and the Pacific, such as the Academy of Sciences Malaysia (ASM), the Science Council of Asia (SCA), the Research Institute for Humanity and Nature (RIHN), the Institute of Marine Science, University of Auckland and others. In this way it has been possible to accelerate co-designing and co-implementation of research for global sustainability. We entertain great expectations for the future of SIMSEA.

The terms of appointment to the ICSU RCAP of Keith Hunter, Marshall Jayasuriya and myself comes to an end on 31 December 2014. New members have been appointed in their places. I thank all members of RCAP for discharging their responsibilities with such enthusiasm and for their excellent contributions to the work of the RCAP. I am also particularly grateful to the Director and the staff of ROAP for their continued endeavours and great achievements. It was heartening to see so much collaboration and cooperation between individuals and institutions in Asia and the Pacific. I am confident that under the leadership of new Chair, Lourdes J. Cruz, RCAP and ROAP can easily fulfill its commitment to strengthen international science for the benefit of society.

Hong Kum Lee

Chair

Regional Committee for Asia and the Pacific





MESSAGE FROM THE DIRECTOR

It has been another busy year at the Regional Office for Asia and the Pacific (ROAP). We were involved, in one way or another, in the organization and implementation of more than 20 events in the region. We also participated in the 31st ICSU General Assembly in Auckland, New Zealand where the Chair presented a comprehensive review of the activities and achievements of ROAP in the three years since the previous general assembly in 2011.

Much time and energy during the year were spent in developing interest and understanding of Future Earth in Asia and the Pacific. Presentations were made to the scientific communities in China, Chinese Taipei, India, Japan, Malaysia, and the Philippines. ROAP is working closely with the regional hub of Future Earth that is based at the Research Institute for Humanity and Nature (RIHN) in Kyoto. Future Earth was also made the theme of the International Conference organized for the 2014 Annual Conference of the Science Council of Asia which has the membership of 29 organizations throughout Asia. The conference was organized together with ROAP and the Academy of Sciences Malaysia (ASM). It received overwhelming response, especially from early career scientists in the Asia-Pacific region.

Planning for a regional Future Earth research programme was initiated during the year. Known as the Sustainability Initiative in the Marginal Seas of South and East Asia (SIMSEA) it organised together with the Japan Agency for Marine-Earth Science and Technology (JAMSTEC) a pre-scoping workshop that took stock and identified gaps in research in the marginal seas of Asia. A SIMSEA programme office was established at the Marine Science Institute of the University of the Philippines, Diliman with funds from ICSU raised by the President, and a research prioritization workshop was held at the end of the year. The programme is primed for a launching conference towards the end of 2015.

Work in the other priority areas of ICSU ROAP i.e. in urban health and wellbeing, natural hazards and risk continue to flourish and a start has been made to develop work in sustainable energy. On the whole, we look forward towards developing greater engagement in the development of Future Earth in the coming years.

We thank everyone for their support and guidance and look forward to greater success in the coming years.

Mohd. Nordin Hasan

Director

ICSU Regional Office for Asia and the Pacific

ICSU REGIONAL OFFICE FOR ASIA AND THE PACIFIC 2014 EVENTS REGISTER

DATE	EVENT
8 January	50 th Annual Convention of Indian Geophysical Union Hyderabad, India
27 January	High-level Meeting on Future Earth Sendai, Japan
4 – 5 February	International Workshop on Future Earth in Asia Kyoto, Japan
27 – 28 February	Pre-scoping Workshop on SIMSEA Yokohama, Japan
7 – 8 March	1 st Planning Meeting on Capacity Building for Psychological Intervention After Disasters Kuala Lumpur, Malaysia
26 – 27 March	Future Earth in the Philippines at the 81 st General Membership Assembly of NRCP Manila, Philippines
7 April	MAIRS 2014 Open Science Conference Beijing, China
24 – 25 April	17 th Meeting, ICSU Regional Committee for Asia and the Pacific Kuala Lumpur, Malaysia
28 – 29 April	Meeting of ROAP Steering Group on Natural Hazards and Risk in the Asia – Pacific Region Kuala Lumpur, Malaysia
16 May	Science and Technology in Society Forum Meeting Singapore
2 – 6 June	Short Course on Urbanization and Health : Systems Approach Kuala Lumpur, Malaysia
30 May – 2 June	6 th International Conference on Applied Energy Taipei, Taiwan



30 June – 1 July	SIMSEA Core Group Meeting Manila, Philippines
6 – 8 August	International Workshop on Open Data for Science and Sustainability in Developing Countries Gigiri, Nairobi
27– 28 August	18 th Meeting, ICSU Regional Committee for Asia and the Pacific Auckland, New Zealand
30 Aug – 3 Sep	31 st ICSU General Assembly Auckland, New Zealand
1 October	Future Earth in Asia – Regional Networking Taipei
29 – 30 October	LESTARI Executive Workshop Series III : Co-production of Knowledge for Global Health Challenge Kuala Lumpur, Malaysia
9 – 10 November	Systems Thinking Training Workshop for Cross-sector Collaboration on Urban Health Taipei
19 – 20 November	SIMSEA Research Scoping Workshop Manila, Philippines
8 –11 December	Capacity Development Workshop on Psychological Intervention after Disasters (PIAD) Myianyang, China
8 – 10 December	1 st Xiamen Expert Workshop on “Health and Wellbeing in the Changing Urban Environment: a Systems Analysis Approach” Xiamen, China
11 – 12 December	Urban Health and Wellbeing Systems Thinking Workshop Xiamen, China





PLANNING, COORDINATING AND PROMOTING RESEARCH

PLANNING, COORDINATING AND PROMOTING RESEARCH

HEALTH AND WELLBEING IN THE CHANGING URBAN ENVIRONMENT

ICSU ROAP continued to actively promote the concept of a systems approach in research on urban health and wellbeing in Asia and the Pacific. Activities this year were focused on training and capacity building workshops. In addition to these, the regional office also participated in the 1st Xiamen Expert Workshop on Health and Wellbeing in the Changing Urban Environment

Short Course on Urbanization and Health: Systems Approaches

The United Nations University International Institute for Global Health (UNU-IIGH) in collaboration with the Institute for Environment and Development Universiti Kebangsaan Malaysia (LESTARI) and ICSU Regional Office for Asia and the Pacific (ROAP) organized a short course on systems approaches in urbanization and health from 2 – 6 June 2014. The course is funded by the



Malaysia Technical Cooperation Programme (MTCP) that provides technical assistance to participating developing countries. In keeping with its role as co-sponsor of the ICSU Urban Health programme, the UNU-IIGH directed the course towards teaching city-based professionals on how to approach urban problems using systems thinking, and understanding the ways in which most urban issues are linked with health. The 5-day course was aimed to improve participants' understanding of relationships between urbanization and human health and how system approaches can help address policy resistance and identify potential intervention points while being alert for unintended consequences. The participants also had the opportunity to share, examine and reflect on urban health problems they face in their own fields of practice.

Executive Workshop on Co-production of Knowledge for Global Health Challenges

The Institute for Environment and Development, Universiti Kebangsaan Malaysia (LESTARI) and its partners, the United Nations University International Institute for Global Health (UNU-IIGH) and the ICSU Regional Office for Asia and the Pacific (ROAP) organized a workshop in Kuala Lumpur on 29 and 30 October 2014 on the co-production of knowledge for global health challenges. The workshop was the third in the series of Executive Workshops organised by LESTARI. It introduced transdisciplinary and multi-sectoral approaches to complex sustainable development issues that cannot be fully understood by mono-disciplinary studies. About 20 decision-makers and researchers with diverse backgrounds from the private and public sectors, non-governmental organizations, academics and journalists were brought together for dialogue and discussions on the interdisciplinary nature of sustainable development. Differences between multidisciplinary, interdisciplinary and transdisciplinary contributions were explained. Participants had the opportunity to enhance

their understanding of the relationship between sustainable development and urban health, and learned methods, techniques and processes for collaborative research and decision-making.

ICSU ROAP and Academy of Sciences located in Taipei Workshop on Systems Thinking



ICSU ROAP together with the Research Center for Sustainability Science and Research Center for Environmental Changes, Academy of Sciences located in Taipei organized a systems thinking training workshop on cross sector collaboration for urban health on 9 – 10 November 2014. The workshop was successful in building capacity in the design and conduct of cross-sector collaboration on urban health research. Opened by Academician Dr C. H. Liu of the Academy of Sciences located in Taipei the workshop brought together researchers from public health sciences, urban planning and land-use planning, and from the environmental sciences to learn of the systems approach to urban health planning, research and management. They were introduced inter alia to systems thinking tools, pair-blending techniques, and system archetype modelling, and how to

capture cross-sector feedback and build shared understanding of urban issues important for sustainability. A pilot research project on urban health and wellbeing using the systems approach has been developed and participants were given a briefing of the opportunities and likely barriers to integrated research through cross-sector collaborations for urban health in Taipei.

Xiamen Expert Workshop on Health and Wellbeing in the Changing Urban Environment: A Systems Analysis Approach

ICSU ROAP participated in the Xiamen Expert Workshop on Health and Wellbeing in the Changing Urban Environment: A Systems Analysis Approach hosted by the Institute of Urban Environment, Chinese Academy of Sciences from 8 – 10 December 2014. The workshop brought together around 60 leading global researchers working in disciplines related to urban health and wellbeing to define the strategic and thematic priorities and the medium- and long-term expected outcomes and activities of the programme. It also prepared a Statement on Urban Health and Wellbeing for general circulation to the health and science communities. The International Programme Office (IPO) of the Urban Health and Wellbeing Programme that is located at the Institute of Urban Environment of the Chinese Academy of Sciences in Xiamen, China was also launched during the workshop. Led by the International Council for Science (ICSU), and co-sponsored by the United Nations University and the InterAcademy Medical Panel, the new programme will inform city planning, policies and design with science-based strategies and tactics to improve the health of billions of people living in fast-growing urban areas. It will also identify and help manage the unintended health consequences of urban policy and the connections between cities and planetary change

Systems Thinking Workshop for Development of an Urban Air Quality and Public Health Project

ICSU ROAP and its partners, the Institute of Urban Environment (IUE), Chinese Academy of Sciences, and the newly established International Programme Office on Urban Health and Wellbeing conducted a systems thinking workshop for a team of Chinese researchers on 11 and 12 December 2014, in Xiamen, China where the IUE is located. A group at IUE, led by Professor Heqing Shen, is developing an urban air quality and public health pilot project that will adopt the systems approach. The workshop built on an earlier systems thinking workshop that ICSU ROAP held in Kuala Lumpur in January 2013. It also introduced the new ICSU-UNU-IAMP International Programme on urban health and wellbeing, with its systems thinking and system dynamics approach, to a wider group of scientists. It focused on the interplay between urban design, environment, and population health and wellbeing and encouraged systems thinking. It provided participants with the opportunity to practise system-analysis skills. The workshop also helped participants build skills in the design of systems

projects, facilitate co-production of knowledge, and strengthened interdisciplinary collaboration. These are essential elements in efforts to improve decision-making and to link policy with science.

NATURAL HAZARDS AND RISK

Planning the next advanced institute in Asia on psychological intervention after disasters

The International Union of Psychological Science (IUPsyS) in partnership with the Institute of Psychology, Chinese Academy of Sciences (CAS), and the United Nations University International Institute for Global Health (UNU-IIGH) met for two days in Kuala Lumpur, to plan a three-year capacity building programme to enhance the ability of disaster-response researchers and practitioners, to better understand the process of psychological recovery after disasters in Asia. The meeting was organised by the ICSU Regional Office for Asia and the Pacific (ROAP) and hosted by UNU-IIGH. IUPsyS and CAS had run highly successful workshops in 2012 and 2013 that were jointly





funded by the ICSU Small Grants Programme, the Chinese Academy of Sciences, IUPsyS and the Centre for Applied Developmental Psychology, University of Jena, Germany. Since then funding has been secured from the Academy of Sciences located in Taipei International Center of Excellence (ICoE) on Integrated Research on Disaster Risk (IRDR) to continue running the workshops for three more years beginning in 2014. The main purpose of the 2-day meeting in Kuala Lumpur was to develop an implementation plan that can eventually lead to the establishment of a long-term programme that will benefit disaster recovery efforts in Asia and in other parts of the world.

The rationale of the workshops is to bring international cutting-edge research with potential to understand the “biopsychosocial” processes

arising from the physical damage of disasters to changes of human behavior and development. Recent scientific insights suggest the pathways involve changes of genetic activities that subsequently change the stress responding system and have consequences for brain functioning. Both taken together have effects on motivation, cognition and other processes guiding behaviour in the situation and also development in the longer run. The experience of disasters can have consequences that are maintained over more than one generation, especially when vulnerable groups like small children are affected. Such insights have changed the view psychology has on the role of the environment in human functioning, and when applied to disasters will also change the education and training of psychologists and their work in disaster relief.



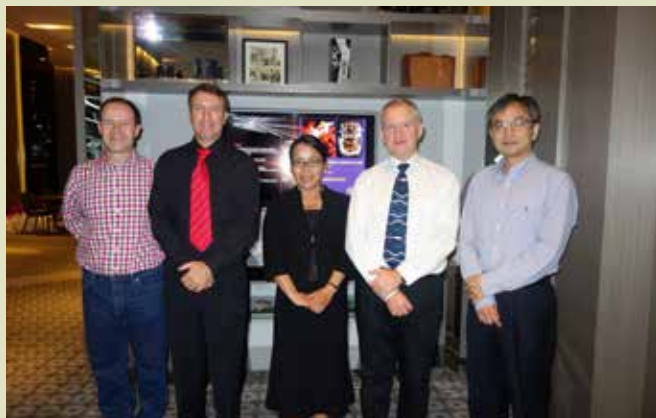
Meeting of ROAP Natural Hazards and Risk Steering Group

The ICSU ROAP Natural Hazards and Risk Steering Group for Asia and the Pacific held its first meeting in 2014 in Kuala Lumpur on 28 and 29 April. The meeting was attended by new members Professor Kruawun Jankeaw from Chulalongkorn University, Thailand, and Professor James Goff of the University of New South Wales, Australia. The Group is chaired by Professor James Terry who was then at the National University of Singapore (NUS) (now at Zayed University, Dubai, United Arab Emirates), and members include Professor Jianxin

Zhang of the Institute of Psychology, Chinese Academy of Sciences and Mr Nigel Winspear of Catastrophe Management. The Steering Group acts as the focal point and coordinator for the Natural Hazards and Risk projects for Asia – Pacific and oversee the implementation of initiatives, identify opportunities for research funding and agencies that can support the implementation of the programme. It advises ICSU ROAP on any other actions that might be appropriate for its consideration in order to facilitate a coordinated regional approach to research on hazards, disasters and vulnerability of islands in Asia - Pacific.

Mianyang Workshop on Psychological Intervention after Disasters

A workshop on psychological intervention after disasters (PIAD) was conducted on 8 – 11 December 2014 in Mianyang, China. The workshop is a continuation of a series of similar workshops dealing with psychological research and practice concerning disasters, and how individuals and communities deal with disasters and its effects on their biopsychosocial well-being. It was organized by the International Union of Psychological Science (IUPsyS) and its partners, the Chinese





Psychological Society, Chinese Academy of Sciences, the International Council for Science, Regional Office for Asia and the Pacific (ROAP), the United Nations University International Institute for Global Health (UNU-IIGH), the Integrated Research on Disaster Risk International Centre of Excellence (IRDR ICoE) located in Taipei and the Center for Applied Developmental Science (CADS), Friedrich Schiller University, Jena, Germany. The workshop was funded mainly by the Jacobs Foundation, Zurich with in-kind and other contributions from partners. The workshop was hosted at the Southwest University of Science and Technology, Mianyang, Sichuan Province, China. It introduced up-to-date and relevant basic and applied science to young investigators and academically trained practitioners of psychology in Asia and the Pacific. An international faculty from various fields of psychology who are experts in their fields provided lectures and guidance during the workshop. Lecture topics included a combination of basic, applied, and

translational research related to short and long-term consequences of disasters for human behaviour and development in adolescence and adulthood, addressing not only negative effects but also posttraumatic growth. Participants were introduced to cutting edge research concerning the role of specific contexts such as family and community, to particular manifestations of strain such as anxiety, depression, and post-traumatic stress disorder (PTSD), and to various means of evidence-based preventive means and interventions to support recovery. A prime emphasis was on the cultural awareness needed when generalizing scientific approaches, and on roots of individual and collective differences in responses to disasters, such as personality and resilience. The sessions emphasized methodological rigor as a common denominator of all science, including information on longitudinal research on survivors of disasters and the analysis of randomized control trials and other ecologically feasible methodologies.



SUSTAINABLE ENERGY

6th International Conference on Applied Energy

ICSU ROAP participated in the 6th International Conference on Applied Energy (ICAE-2014) that was held at the National Taiwan University of Science and Technology, Chinese Taipei, from 30 May to 2 June 2014. The theme of the Conference was "Clean, Efficient, Affordable and Reliable Energy for a Sustainable Future". The conference had plenary sessions, keynote lectures, and parallel specialized sessions on different topics related to applied energy. Dr Mark Stafford Smith, Chair of the Science Committee of Future Earth, the new international initiative for research on global sustainability, and Science Director, CSIRO Climate Adaptation Flagship, gave a keynote address at the Conference entitled "Future Earth: The Challenges

We Face". Other keynote speakers included Prof. Falin Chen of the National Taiwan University, Mr. Mark L. Clifford, Executive Director of the Asia Business Council, and Prof. Dr. Detlef Stolten, RWTH Aachen University, Germany.

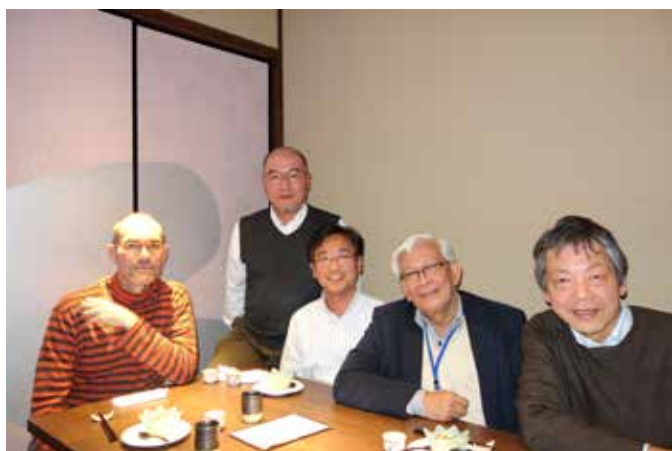


FUTURE EARTH IN ASIA AND THE PACIFIC

FUTURE EARTH IN ASIA AND THE PACIFIC

Development of Future Earth in Asia and the Pacific

The Office organized, assisted in organizing and made presentations about Future Earth and Future Earth-related programmes and activities in Sendai, Kyoto, Beijing, Singapore, Taipei, Manila and Kuala Lumpur. These activities contributed towards greater positive outlook of future Earth and enhanced awareness and understanding of Future Earth in Asia and the Pacific.



Capacity development for Future Earth

In January ICSU ROAP participated in a high-level meeting about Future Earth organised by the Graduate School of Environmental Studies, Tohoku University, in Sendai, Japan. The meeting discussed plans for the implementation of a Future Earth capacity development programme in Asia. Sixteen Japanese Universities from all over the country participated in the meeting and the opportunity was used to provide those present with a clear account of the development of Future Earth in Asia and to identify potential opportunities for collaboration in the development of capacity for research, education and training in sustainability studies throughout the region. All participating





universities have a graduate level Environmental Leadership Programme (ELP) that has been strongly supported and funded by the Government of Japan. Fumiko Kasuga the Vice President of the Science Council of Japan and member of the ICSU Committee for Scientific Planning and Review (CSPR) also participated in the discourse. Tohoku University proposes to broaden the existing ELP focus to include agenda essential for global sustainability through:

- The development and promotion of educational materials and methodologies to support training programmes for Future Earth in the region;

- Creation of opportunities for strengthening the collaborative links for research and education for global sustainability with institutions in Asia and elsewhere; and
- Strengthening networking among institutions providing education for sustainable development within the context of Future Earth in Asia and the Sustainable Development Goals (SDGs).

The establishment of such a centre at Tohoku University can provide an initial test-bed for ideas on how to organise the infrastructure to develop the intellectual capacity of nations in the region to meet the needs of Future Earth for co-designed, co-produced and co-disseminated scientific knowledge vital for achieving global sustainability.

2nd Asia Workshop on Future Earth

The Research Institute for Humanity and Nature (RIHN), Kyoto, in collaboration with the Science Council of Japan, the Japan Science and Technology Agency and the Research Institute of Science and Technology for Society, organized the 2nd workshop on Future Earth in Asia in February 2014. The workshop brought together researchers, representatives of non-governmental organizations (NGOs), development organizations, and research funding organizations to engage in a dialogue



about the possible contributions that Future Earth can make to the transition to sustainability in Asia, and how it will deliver science for society.

Stakeholders were informed of the role of Future Earth in Asia and on selected aspects of its draft Science Plan, and received feedback and inputs on priority research themes. The workshop initiated the development of an initial list of principles for good practice in the design of Future Earth research projects in Asia.

Future Earth and MAIRS

The Monsoon Asia Integrated Regional Study (MAIRS) Open Science Conference with the theme Future Earth in Asia, was held in Beijing in April 2014. The conference provided a platform for scientists, stakeholders, policy makers, and the public in general to present state-of-the-art findings and challenges in addressing environmental and climate change in Monsoon Asia. The MAIRS programme was established in 2006 to specifically address interactions between climate and human systems in Asia. It adopted an interdisciplinary approach to integrate research on human communities, climate and ecosystems. By focusing on the integrated studies in ecosystems

under pressure (Coastal, Urban, Mountains, and Drylands), the MAIRS programme deepened understanding on how the climate-human system interacts and where gaps in knowledge remain. This Open Science Conference brought together experts in the region to discuss the complexity of the interactive nature between climate, ecosystem and human systems, and the challenges of integrating disciplines, sectors, programs, and national efforts across spatio-temporal scales in the Monsoon Asia region for Future Earth. ICSU ROAP was a co-sponsor of the conference.

Future Earth, Future Philippines

The President of ICSU Professor Y.T. Lee addressed the 81st General Membership Assembly of the National Research Council of the Philippines (NRCP) which was held at the historic Manila Hotel in March 2014. The theme of the Assembly was Future Earth, Future Philippines. His address was followed by that of the Secretary of the Department of Science and Technology (DOST) of the Philippines, the Hon. Mario G. Montejo, who spoke on Sustainability for Future Philippines. Nobel Laureate Y.T. Lee spoke about Future Earth as the new international research platform on global sustainability. The Director of ROAP addressed the Assembly with a



presentation on the regional perspective of Future Earth in the Philippines.

The NRCP, established in 1933 is the oldest collegial and scientific advisory body of the Philippine government and the first scientific advisory body in Asia-Pacific. It has more than three thousand members consisting of scientists, technologists, innovators, and economists. The President of the NRCP Professor Lourdes J. Cruz is a member of the ICSU Regional Committee for Asia and the Pacific.

Frameworks for Networking in Future Earth

A one-day planning meeting to discuss networking frameworks for Future Earth in Asia and the Pacific was held in October at the Center for Sustainability Science, Academy of Sciences located in Taipei. The meeting was attended by 15 scientists from Australia, Chinese Taipei, India, Japan, Korea, and Malaysia. Presiding over the discussions was Professor Tetsuzo Yasunari, Director of the Kyoto-based Research Institute for Humanity and Nature (RIHN) who is also Chair of the Future Earth National Committee in Japan, and Member of the Future Earth (International) Science Committee. It was acknowledged at the end of the meeting that it provided much needed discussion on desirable optimum conditions for networking of individuals and organizations that will contribute to timely development of Future Earth in the region. Members of an interim Asia Regional Committee of Future Earth were also identified at the meeting. The development of Future Earth in Asia and the Pacific will be further discussed in a Future Earth meeting that will be organised by RIHN in January next year.

SIMSEA - the ROAP initiative for Future Earth

This year ROAP initiated the development of a programme called Sustainability Initiative in the Marginal Seas of South and East Asia (SIMSEA). It is being developed as a flagship programme

of ROAP on Future Earth in Asia. Partners in its development are the Marine Science Institute of the University of the Philippines and the Japan Agency for Marine-Earth Science and Technology (JAMSTEC).

A pre-scoping workshop was held in Yokohama in February 2014 with support from the Japan Agency for Marine-Earth Science and Technology (JAMSTEC) and the Science Council of Japan. The



marginal seas of East Asia lie along the Western Pacific rim, and have islands that spread from the Bering Sea in the North, to the Indonesian seas in the South. It is a very important region especially in relation to international commerce and global security, and links several major seas in Asia and the Pacific. Conserving the health and wellbeing of the marginal seas, and the peoples that rely on them, while coping with the pressures of global change, is an urgent imperative. SIMSEA, aims to develop the knowledge for responding effectively to the risks and opportunities of global environmental

change, and support transformation towards global sustainability in the region in the coming decades. The main boundary of the proposed study will be the Exclusive Economic Zones beyond the territorial waters of countries in the zone. Sustainable use of the international waters common to countries in the region will also be a focus. The programme will involve collaboration in joint research and capacity building projects involving early career scientists in developing countries of the region. The workshop enabled a review of on-going and past research in the marginal seas of Asia and identify knowledge gaps that need to be filled.

The first meeting of the Steering Committee of SIMSEA was convened in June 2014. The meeting was hosted by the Marine Science Institute of the University of the Philippines, Diliman. Attending the meeting were Professor Lourdes Cruz, Professor Toshio Yamagata, Dr Anadell Cabanban, and Professor Nordin Hasan, the Director of ICSU

ROAP. Cruz and Yamagata are the members of the Regional Committee for Asia and the Pacific (RCAP) who originally mooted the idea of the programme at the 16th Meeting of the Regional Committee for Asia and the Pacific, in Seoul, Korea in November 2013. Other than discuss the way forward to develop SIMSEA as a Future Earth activity in Asia, discussions were also held with Professor Rhodora Azanza the Assistant Vice President for Academic Affairs and Director, Office of International Linkages of the University, on the possibility of the University hosting the initial stages of the development of the programme. The outcome was very positive and a framework for collaboration to establish a programme office of SIMSEA at the University was agreed.

A workshop to scope activities of the Sustainability Initiative in the Marginal Seas of South and East Asia (SIMSEA) in its initial year was held in November 2014. The two-day workshop was





hosted by the Marine Science Institute, University of the Philippines, Diliman. Prior to the workshop a questionnaire survey was conducted by the organisers to identify priorities for research under the programme. The questionnaire was administered among stakeholders of the marginal seas to survey research priorities in the physical, ecological, and social sciences that needed to be investigated in response to the needs of society. The results of the survey provided background to deliberations during the workshop that engaged

about 20 thought leaders familiar with past and on-going research in the SIMSEA region. The workshop developed a vision for SIMSEA and ranked priority areas of research under the Framework of Future Earth that it identified. Research questions that emerged from the workshop were categorised according to the global themes identified by Future Earth viz. Dynamic Planet, Sustainable Global Development, and Transformations Towards Sustainability.



REGIONAL NETWORKING

REGIONAL NETWORKING

Science and Technology in Society (STS) forum in Singapore

The Science and Technology in Society (STS) forum that provides a platform where world leaders exchange opinions about issues surrounding science and technology in society met in Singapore on 16 May 2014. ICSU ROAP was represented at the event by its Director Nordin Hasan. The forum explored how science enhances the progress of society and how to address and minimise any negative impacts. It is a movement of world leaders in the fields of policy, science, business and media that aims to mobilize wisdom to deal with issues that result from society's use of science and technology. Mobilising mankind's wisdom is becoming increasingly complex because of global interconnectedness and possible solutions usually lie beyond the jurisdiction of any single country. They are also beyond the reach of the scientific community in isolation and require multi-national, multi-stakeholder participatory approaches to produce desired results. This is

indeed also the philosophy embraced by Future Earth the new international platform for research on global sustainability. The STS forum meeting in Singapore discussed and deliberated innovation, science and technology cooperation between ASEAN and Japan. Of particular importance to the meeting was the question of how to successfully promote ASEAN-Japan cooperation on innovation, science and technology; the areas that require urgent attention in ASEAN and Japan; how to effectively promote cooperation; and how countries in the region can build capacity through the provision of support for the circulation of young scientific talent in the region.

Science Council of Asia (SCA) International Conference

ROAP and its host organization the Academy of Sciences Malaysia co-organized an international conference held in conjunction with the 14th Science Council of Asia (SCA) Annual Conference in June 2014. The conference had as its theme Future Earth: Research for global sustainability and a holistic understanding of sustainable development of Asia. It was attended by about 300 participants from Asia





and the Pacific. There was significant participation in its symposia from early career scientists. Keynote speakers at the conference included the President of the Science Council of Japan Professor Takashi Onishi, and Professors Harsh Gupta, Kiyoshi Kurokawa, Sung yun Park and Ibrahim Komoo. The Science Council of Asia has a membership of 29 scientific organizations from 17 countries in Asia.

International Workshop on Open Data for Science and Sustainability in Developing Countries

ICSU ROAP participated in the International Workshop on Open Data for Science and Sustainability in Developing Countries convened at the United Nations Office in Gigiri, Nairobi from 6 to 8 August 2014. It was preceded by a successful training workshop on the use of open data for science and sustainability on 4-5 August 2014 at

the Jomo Kenyatta University of Agriculture and Technology, Kenya (JKUAT) located in Juja, Nairobi. The workshop was made possible by the CODATA Task Group on Preservation of and Access to Scientific and Technical Data in Developing Countries (CODATA PASTD) headed by Professor Liu Chuang of the Institute for Geographic Sciences and Natural Resource Research (IGSNRR) of the Chinese Academy of Sciences, in partnership with the Communication and Information Committee, World Federation of Engineering Organization (WFEO-CIC), the Ministry of Communication and Information of Kenya (MCIK), and the United Nations Educational, Scientific and Cultural Organization (UNESCO).





GOVERNANCE

GOVERNANCE

17th Meeting of ICSU RCAP

The ICSU Regional Committee for Asia and the Pacific (RCAP) held its 17th meeting in Kuala Lumpur on 24 and 25 April 2014. Steven Wilson, ICSU's Executive Director joined part of the meeting via Skype from Paris. In welcoming the members to the meeting, the Chair announced the reappointment of four members for a second three-year term. They were Soottiporn Chittmittrapap, Javed Iqbal, Toshio Yamagata and Jianxin Zhang. Membership to the Committee is renewable once and members are appointed in their individual capacity. The meeting deliberated on the progress made in the priority areas of work of ROAP and review their implementation. In particular it examined the role the Office can play in the development and implementation of Future Earth, the new international research platform and ten-year programme on global sustainability. ROAP was also developing a new programme called Sustainability Initiative on the Marginal Seas of East Asia (SIMSEA) as a priority area of work for Future Earth in Asia and the Pacific.

18th Meeting of ICSU RCAP

The 18th Meeting of the ICSU Regional Committee for Asia and the Pacific (RCAP) was held in Auckland, New Zealand on 27 and 28 August 2014, just prior to the 31st ICSU General Assembly on 30 August to 3 September 2014. The meeting was attended by all Committee members. The meeting discussed the progress of the work of ICSU ROAP in its priority areas viz. hazards and disasters, urban health and wellbeing; sustainable energy, and ecosystems. Reports from the global secretariat of ICSU and the ICSU Regional Office for Latin America and the Caribbean were also tabled at the meeting. Of particular interest to Asia and the Pacific was the development of work related to the new international platform for research on global sustainability, Future Earth. ROAP continued developing a programme known as the Sustainability Initiative in the Marginal Seas of East Asia (SIMSEA) as part of its activity on Future Earth. The Committee members had the opportunity to visit the laboratories of the Institute of Marine Science, University of Auckland in Leigh. The Director of the Institute Professor Simon Thrush was at hand to brief the Committee on research at the Institute and together the group discussed how to build effective links to Future Earth in the region.







ICSU IN ASIA & THE PACIFIC

REGIONAL COMMITTEE FOR ASIA & THE PACIFIC

Hong-Kum Lee - Chair
Principal Researcher
Korea Polar Research Institute (KOPRI)
REPUBLIC OF KOREA

Soottiporn Chittmittrapap
Secretary-General,
National Research Centre Thailand
THAILAND

B.V.R. Chowdari
Executive Director
NUS-India Research Initiatives
Office of the Deputy President
(Research & Technology), Department of Physics
National University of Singapore
SINGAPORE

Togtokh Chuluun
Science Advisor to the Minister of Environment and
Green Development
Ministry of Environment & Green Development
MONGOLIA

Lourdes J. Cruz
Member and Immediate Past - President
National Research Council of the Philippines
Department of Science & Technology
General Santos Avenue
PHILIPPINES

Keith Hunter
Pro-Vice-Chancellor
Division of Sciences
University of Otago
NEW ZEALAND

Javed Iqbal
Honorary Professor/President
Cosmic Discoveries Pvt Ltd, Hyderabad
Dr. Reddy's Institute of Life Sciences (DRILS)
Institute of Life Sciences, University of Hyderabad
INDIA

Marshall Noble Jayasuriya
98/M/47, Scenic View
Kahantota Road
Malabe, SRI LANKA

Toshio Yamagata
Director
Application Laboratory
Japan Agency for Marine-Earth Science and
Technology (JAMSTEC), JAPAN

Jianxin Zhang
Professor of Psychology
Institute of Psychology
Chinese Academy of Sciences
CHINA

Mohd Nordin Hasan
Director
International Council for Science (ICSU)
Regional Office for Asia and the Pacific
902-4, Jalan Tun Ismail
50480 Kuala Lumpur
MALAYSIA

Sukiman Sarmani
(ASM Representative)
School of Chemical Sciences & Food Technology
Faculty of Sciences & Technology
Universiti Kebangsaan Malaysia
MALAYSIA

Steven Wilson
Executive Director
International Council for Science (ICSU)
5 rue Auguste Vacquerie
75016 Paris,
FRANCE

Guoxiong Wu
(ICSU Executive Board Liaison)
Laboratory of Numerical Modeling for Atmospheric
Sciences & Geophysical Fluid Dynamics (LASG)
Institute of Atmospheric Physics
CHINA



SECRETARIAT

Director:

Mohd Nordin Hasan FASc
(nordin.hasan@icsu-asia-pacific.org)

Senior Science Officer:

Tengku Sharizad Tengku Dahlan
(sharizad.dahlan@icsu-asia-pacific.org)

Administrative Officer:

Mohd Hizamddin Jaafar
(hizam.jaafar@icsu-asia-pacific.org)





FINANCIAL SUMMARY

FINANCIAL SUMMARY FROM JANUARY - DECEMBER 2014 *

INCOME	MYR	EUR
<u>Annual Grants</u>		
Malaysian Government	853,105.00	213,276.00
ICSU – PARIS :		
- Balance from 2013	100,000.00	25,000.00
- Contribution for 2014	343,500.00	75,000.00
Sub Total	1,296,605.00	313,276.00
<u>Other Income</u>		
Balance b/f 2013	178,374.00	44,953.00
Reimbursement	43,990.00	10,997.00
SIMSEA funds	640,000.00	160,000.00
Other	-	-
Sub Total	862,364.00	215,590.00
TOTAL INCOME	2,158,969.00	528,866.00
EXPENDITURE	MYR	EUR
Emolument	406,280.00	101,570.00
Communication & Utilities	13,831.00	3,457.00
Supplies/other materials	30,865.00	7,716.00
Maintenance/repairs	900.00	225.00
Services	9,470.00	2,367.00
Meetings/Consultations & Activities expenditure	776,929.00	194,232.00
Total Expenditure	1,238,275.00	309,567.00
BALANCE C/FTO 2015	920,694.00	219,319.00

EUR1.00:MYR3.96-MYR4.58

MEMBERSHIP OF ICSU



NATIONAL MEMBERS

ICSU's National Members provide input, from a national, multidisciplinary perspective, on priority areas for future ICSU activities. They also play an important role in facilitating links with national governments and science agencies. The majority of ICSU National Members are scientific academies, although some are national funding agencies or other nationally representative science bodies. The following list includes full Members, Scientific Associates*, and Observers**. Pacific Islands includes Cook Islands, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu and Vanuatu.

Albania, Academy of Sciences	Burkina Faso, Centre National de la Recherche Scientifique et Technologique
Angola, Foundation of Science and Development	Cameroon, Cameroon Academy of Sciences
Argentina, National Scientific and Technological Research Council (CONICET)	Canada, National Research Council of Canada
Armenia, National Academy of Sciences of the Republic of Armenia	Caribbean, Caribbean Academy of Sciences (CAS)
Australia, Australian Academy of Science	Chile, Academia Chilena de Ciencias
Austria, Die Österreichische Akademie der Wissenschaften	China: CAST, China Association for Science and Technology (CAST)
Azerbaijan, Azerbaijan National Academy of Sciences	China: Taipei, Academy of Sciences located in Taipei
Bangladesh, Bangladesh Academy of Sciences	Colombia, Academia Colombiana de Ciencias Exactas, Físicas y Naturales
Belarus, National Academy of Sciences (NASB)	Costa Rica, Academia Nacional de Ciencias
Belgium, Royal Academies for Science and the Arts of Belgium (RASAB)	Cuba, Academia de Ciencias de Cuba
Bolivia, Academia Nacional de Ciencias de Bolivia (ANCB)	Czech Republic, Czech Academy of Sciences
Bosnia & Herzegovina: ANUBiH, Academy of Sciences and Arts of Bosnia and Herzegovina	Côte d'Ivoire, Académie des Sciences, des Arts, des Cultures d'Afrique et des Diasporas Africaines (ASCAD)
Bosnia & Herzegovina: ANURS, Academy of Sciences and Arts of the Republic of Srpska	Denmark, Royal Danish Academy of Sciences and Letters
Botswana, Ministry of Infrastructure Science and Technology	Dominican Republic, Academy of Sciences of the Dominican Republic
Brazil, Academia Brasileira de Ciências (ABC)	Egypt, Academy of Scientific Research and Technology (ASRT)
Bulgaria, Bulgarian Academy of Sciences (BAS)	El Salvador, Viceministerio de Ciencia y Tecnología de El Salvador

Estonia, Estonian Academy of Sciences	Malawi, National Commission for Science and Technology
Ethiopia, Ethiopian Science and Technology Agency	Malaysia, Academy of Sciences Malaysia
Finland, Council of Finnish Academies	Mauritius, Mauritius Research Council
France, Académie des Sciences	Mexico, Academia Mexicana de Ciencias
Georgia, Georgian Academy of Sciences	Moldova, Academy of Sciences of Moldova
Germany, Deutsche Forschungsgemeinschaft (DFG)	Monaco, Principauté de, Centre Scientifique de Monaco
Ghana, Ghana Academy of Arts & Sciences	Mongolia, Mongolian Academy of Sciences
Greece, Academy of Athens	Montenegro, Montenegrin Academy of Sciences and Arts
Guatemala, Academia de Ciencias Médicas Físicas y Naturales de Guatemala	Morocco, Hassan II Academy for Science and Technology
Hungary, Hungarian Academy of Sciences	Mozambique, Scientific Research Association of Mozambique (AICIMO)
India, Indian National Science Academy	Namibia, Ministry of Education: Directorate of Research, Science and Technology
Indonesia, Indonesian Institute of Sciences (LIPI)	Nepal, Nepal Academy of Science and Technology (NAST)
Iran Islamic Rep. Of, University of Tehran	Netherlands, Koninklijke Nederlandse Akademie van Wetenschappen
Iraq, Ministry of Science and Technology	New Zealand, Royal Society of New Zealand
Ireland, Royal Irish Academy	Nigeria, Nigerian Academy of Science
Israel, Israel Academy of Sciences and Humanities	Norway, Norwegian Academy of Sciences and Letters
Italy, Consiglio Nazionale delle Ricerche	Pakistan, Pakistan Association for the Advancement of Science
Jamaica, Scientific Research Council	Panama, Universidad de Panama
Japan, Science Council of Japan	Peru, Academia Nacional de Ciencias
Jordan, Royal Scientific Society	Philippines, National Research Council
Kazakhstan, National Academy of Sciences of the Republic of Kazakhstan	Poland, Polish Academy of Sciences
Kenya, Kenya National Academy of Sciences	Portugal, Academia das Ciencias de Lisboa
Korea Democratic People's Republic of, State Academy of Sciences	Romania, Academia Româna
Korea Republic of, National Academy of Sciences of the Republic of Korea	Russian Federation, Russian Academy of Sciences
Lao PDR, Lao National Science Council	Rwanda, Kigali Institute of Science and Technology (KIST), Rwanda
Latvia, Latvian Academy of Sciences	Saudi Arabia Kingdom of, King Abdulaziz City for Science and Technology (KACST)
Lebanon, National Council for Scientific Research	
Lesotho, Department of Science and Technology	
Lithuania, Lithuanian Academy of Sciences	
Luxembourg, Fonds National de la Recherche	
Macedonia, Former Yugoslav Rep. Of, Macedonian Academy of Sciences and Arts	
Madagascar, Ministère de l'Enseignement Supérieur et de la Recherche Scientifique	



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



SCIENTIFIC UNIONS

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



INTERDISCIPLINARY BODIES

The Interdisciplinary Bodies bring together different scientific disciplines to address scientific issues of international relevance that are of interests to ICSU Members. Some of these bodies are co-sponsored with other organisations.

Thematic Organizations

- Programme on Ecosystem Change and Society (PECS)
- Integrated Research on Disaster Risk (IRDR)
- Committee On SPACe Research (COSPAR)
- Scientific Committee on Antarctic Research (SCAR)
- Scientific Committee on Frequency Allocations for Radio Astronomy and Space Science (IUCAF)
- Scientific Committee on Oceanic Research (SCOR)
- Scientific Committee On Solar-Terrestrial Physics (SCOSTEP)

Global Environmental Change Programmes

- DIVERSITAS, An International Programme of Biodiversity Science
- International Geosphere-Biosphere Programme (IGBP)
- International Human Dimensions Programme on Global Environmental Change (IHDP)
- WMO-ICSU-IOC World Climate Research Programme (WCRP)

Monitoring and Observations

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

Data and Information

- ICSU World Data System (WDS)
- Committee on DATA for Science and Technology (CODATA)
- International Network for the Availability of Scientific Publications (INASP)



SCIENTIFIC ASSOCIATES

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



ICSU Regional Office for Asia and the Pacific

902-4 Jalan Tun Ismail, 50480 Kuala Lumpur, MALAYSIA

Tel • +603-2694-9898 | Fax • +603-2691-7961

<http://www.icsu.org/asia-pacific>