

## 31<sup>st</sup> GENERAL ASSEMBLY

Auckland, New Zealand  
31 August - 3 September 2014

### DECISIONS

#### 1. Welcome and Opening of the General Assembly

The formal opening of the Assembly took place in the evening of 31 August at a dinner hosted by the Royal Society of New Zealand. The Prime Minister of New Zealand, the Right Honourable John Key, attended and addressed the participants. Yuan-Tseh Lee, President of the International Council for Science, and David Skegg, President of the Royal Society of New Zealand, also made presentations.

The invited speaker for this opening event was Peter Gluckman, Chief Science Advisor to the Prime Minister of New Zealand, who spoke on “*The changing nature of science; can scientists rise to the challenge?*”.

This evening event was followed by brief statements from partners in the morning of 1 September (the statement from UNEP was given later in the meeting):

- ISSC Heide Hackmann, Executive Director
- UNESCO Salvatore Aricò, Senior Programme Specialist, Division of Science Policy
- IAC – IAP – IAMP Daya Reddy, IAC Co-chair
- WMO: Michel Jarraud, Secretary-General (recorded video message)
- TWAS Romain Murenzi, Executive Director
- UNU Kazuhiko Takeuchi, Vice-Rector
- UNISDR Margareta Wahlström, Special Representative of the Secretary-General (SRSG) for Disaster Risk Reduction (recorded video message)
- UNEP Jacqueline McGlade, Chief Scientist
- CAETS Michael Manton, Committee on International Organizations

The List of Participants is attached as **Annex 1**.

#### 2. Adoption of the Agenda

The Draft Agenda had been circulated to Members on 10 June 2013, together with the First Circular, and the version provided for the Assembly took account of comments received. The Assembly agreed to take certain items in a different order on the morning of Tuesday, 2 September, but this report follows the order of the Agenda as circulated to Members

**Decision**

2.1 To approve Agenda

**3. Appointment of Resolutions Committee and Tellers**3.1 Resolutions Committee

The President informed the Assembly of the persons proposed by the Executive Board to serve on the Resolutions Committee and these were approved:

- M. Durovic – Montenegro (Chair)
- M.-L. Chanin – France
- S. Cooper – IUPsyS (South Africa)
- M. Walsh – IUBMB (Canada)

3.2 Tellers

The Assembly also approved the persons proposed by the Executive Board to serve as Tellers.

- S. Ayonghe – Cameroon
- T. Beer –IUGG (Australia)
- S. Nortcliff – IUSS

**Decision**

3.1 To appoint the Resolutions Committee and Tellers

**4. Secretary-General's Report**

The Decisions of the 30<sup>th</sup> General Assembly had been approved by Members in January 2012 and subsequently posted on the International Council for Science website. The Executive Board oversaw follow-up of the actions agreed by the Assembly.

The Secretary-General reported on changes to the personnel and management of the Council's Secretariat over the past three years and on interactions with the Regional Offices. He noted in particular the restructuring of the Secretariat and that the former position of Deputy Executive Director would be replaced by a Head of Science Programmes. Recruitment was currently underway for this position. He paid tribute to the Executive Director, Steven Wilson, who would be leaving the Council shortly after the Assembly and informed Members that Peter Liss, a distinguished environmental scientist at the University of East Anglia, had been appointed as interim Executive Director as of the beginning of October for a period of approximately six months whilst a permanent Executive Director was being appointed. Over 40 applications for this position had been received.

**Decision**

4.1 To note the Secretary-General's Report.

## 5. Reports from Union and National Members' Fora

Reports from the Unions and National Members' Fora which had taken place on 31 August were presented orally.

The discussions highlighted the following main points:

### External Review

- Need to establish a clear plan to take the proposals forward rapidly
- Importance of involving other disciplines in the International Council for Science (economics, engineering and technology)
- Engage more actively in key policy and societal debates and strengthen the Council as “the voice for science”
- Proactively engage female and early career scientists
- Need for increased communication and visibility
- Strengthen involvement and communication with Members (*e.g.* hold EB meetings in different regions)
- Promote exchanges of best practices among members
- Need for high-level engagement of Unions
- Importance of fund-raising
- Strengthen partnerships with other international organizations
- Align the Council global and regional research agendas
- Need for continuing integration of social sciences

### Open Science, data and information

- Important that the Council sets principles and takes the lead
- Need for development of new metrics for evaluation of published works
- Problem of predominance of English, financial implications for learned societies and quality control need to be addressed
- Need to protect indigenous knowledge
- Ethical and security issues
- Scientific community should set the norms and others, including private companies, would follow

### Future Earth

- Noted that this was a flagship programme for the Council and the other members of the Science and Technology Alliance for Global Sustainability and that National and Union Members were keen to be involved
- Some lack of clarity concerning research groups and questions on funding at the global level
- Link Future Earth to International Year of Global Understanding
- Ensure effective coordination and decision-making including finance across the five regional hubs
- Engage regions not represented thus far
- Engage governments early in the process

## Other

- Scientists do not know ICSU; important to establish a roadmap for greater visibility
- Still poor follow-up to members who had made nominations for membership of various Council committees
- Need for greater attention to gender and geographic distribution
- Reconsider Rule of Procedure 7.2 concerning the establishment of Union slates for membership of the Executive Board
- Request that next EB reconsider the process for appointment of the Nominating Committee

## **Decisions**

5.1 To note the reports from the Unions and National Members Fora.

## **6. CSPR Report: Implementation of the Strategic Plan, 2012-2017**

At the 30<sup>th</sup> General Assembly in Rome, the International Council for Science membership had approved the 2<sup>nd</sup> Strategic Plan, 2012-2017. This Plan provided the framework in which the policy Committee on Scientific Planning and Review (CSPR) had been operating for the past 3 years. CSPR had particular responsibility for the over-arching strategic goal relating to research coordination and planning – *to organize excellent international interdisciplinary research in selected areas of importance to society*.

The Vice-President for Scientific Planning and Review, who chaired CSPR, presented an overview of the major CSPR activities during the past 3 years. Many were the focus of dedicated agenda items at the Assembly but a number of important activities were not covered elsewhere on the Agenda and these included:

Sustainable energy: following a workshop in Mexico in 2013, progress had been made on the integration of regional activities and definition of a niche for the Council's activities on sustainable energy within other programmes, including Future Earth.

Ecosystem change and society: the ICSU-UNESCO Programme on Ecosystem Change and Society (PECS, <http://www.pecs-science.org/>) had been approved by the 29<sup>th</sup> General Assembly. This decadal initiative had its Programme Office at the Stockholm Resilience Centre and had an expanding portfolio of international projects and working groups. PECS had been one of the first initiatives to formally become affiliated with Future Earth in early 2014.

New Horizons and the grants programme: the Council's strategic goal in relation to New Scientific Horizons was *to monitor emerging international research issues of importance to science and society and to develop mechanisms to ensure that these can be addressed in a timely manner by the relevant members of the ICSU family*.

Representatives of the Council's Unions had met in Paris in April 2013 to discuss how they might contribute to the Council's activities and *vice versa* including in the area of New Horizons. One outcome of this was that the Council's grants programme had been revised to encourage innovative proposals that explored new scientific opportunities at the interface between disciplines.

Members commented that a longer term vision for strategic planning than five years was necessary and felt that both the President and the President-Elect should be members of the CSPR. Some members also felt that there was a lack of communication between CSPR and the Unions.

#### **Decision**

6.1 To note the CSPR report and overall progress to date in implementing the Strategic Plan, 2012-2017.

### **7. Invited Science Lecture: Nancy Bertler**

*“Potential collapse of the West Antarctic Ice Sheet – Implications for Global Sea Level”*

Rapid deglaciation of West Antarctica remained a primary uncertainty in the Intergovernmental Panel on Climate Change (IPCC) predictions for 21<sup>st</sup> century sea level rise. The recent and unpredicted collapse of multiple ice shelves, rapid acceleration of Antarctic ice discharge, and large scale changes in atmospheric circulation and ocean currents suggested that dynamical responses to warming played a more significant role than was currently understood and captured in coupled climate-ice sheet models. New results from current research projects (*i.e.* RICE, ANDRILL, WAIS) indicated a higher climate sensitivity of the Antarctic ice sheets than previously thought. AntarcticClimate21, one of five SCAR (Scientific Committee on Antarctic Research) research programmes aimed to provide improved projections of the magnitude and patterns of change to Antarctica’s physical environment as a result of global change over the next 100 years and beyond. Such information helped to develop adaptation strategies and to provide a mandate for mitigation.

### **8. 30 Years of Global Environmental Change Research**

Since the 1980s, International Council for Science has established and continuously sponsored four major international research programmes on global environmental change: the World Climate Research Programme (1980), the International Geosphere-Biosphere Programme (1987), DIVERSITAS (1991) and the International Human Dimensions Programme (1996). As IGBP, DIVERSITAS and IHDP are being integrated into Future Earth in 2014-2015, the Council wanted to pay tribute to the many outstanding scientific achievements of the programmes.

Sybil Seitzinger introduced the session by stressing the important functions that the GEC programmes have had over the years. The programmes have played a major role in building and coordinating international networks of scientists working on various dimensions of global change, and fostered integrated approaches to science in that field. The global reach and convening power that the programmes developed were exemplified recently by the organization of the Planet Under Pressure conference (March 2012) prior to the UN Rio+20 conference. By federating world-class scientists and producing new insights into issues of global concern, the programmes have helped catalyse and disseminate scientific breakthroughs of great relevance to societies. In particular, 2015 will be a critical year, including for global change research, as agreements are expected to be adopted by the world’s nations on Sustainable Development Goals, Climate Change, Disaster Risk Reduction and the review of the Aichi targets for biodiversity. The programmes have provided major contributions to these policy processes over the years, and many others at national and international levels for example, on air pollution, water

stress, change in marine ecosystems, deforestation. In addition, the programmes have delivered the underpinning science into many of the scientific assessments associated with these policy processes.

Among its many achievements, IGBP has supported research that has fundamentally changed our understanding of the Earth system and the role of humans in it. Nobel Laureate Paul Crutzen, then vice-chair of IGBP, coined the term of ‘Anthropocene’ as a new geological epoch in which humans have become major drivers of change. Through an Earth system perspective approach, research undertaken within the umbrella of IGBP helped quantify and qualify impacts of changes in the nitrogen cycle, also contributing to raising the issue in the policy space. IGBP, with other partners, developed in the 1990s a land use classification scheme using modern satellite data thus allowing for monitoring land use change and laying the ground for the integrated socio-ecological approaches in land cover analysis that we see today. IGBP also led the way in developing Earth system models that incorporate land, ocean, nitrogen cycle and atmosphere cycles. Extending the scientific advances into the policy sphere, IGBP has had many successes in raising the profile of critical issues such as black carbon, ocean acidification and greenhouse gas emissions through science-based and policy-relevant outputs such as the release of the annual global carbon budget presented this year at the UN Climate Summit (23 September 2014).

Anne-Hélène Prieur-Richard presented the seminal work of DIVERSITAS in understanding the functioning of ecological systems, the importance of biodiversity and how biodiversity contributes to ecosystem functions and services. The many insights into the functional diversity of ecosystems have had many applications, including in land management planning. Another important area where DIVERSITAS achieved major impacts is in the development and implementation of a global monitoring system for biodiversity, with partners contributing to the science underpinning the observations. For instance this allowed for the development of models to study and project likely impacts of environmental change on species. DIVERSITAS also achieved outstanding policy outcomes through the long-term collaboration established with the Convention on Biological Diversity, feeding the scientific insights to policy-makers as well as supporting the definition of the Aichi targets and monitoring their implementation. DIVERSITAS also played a fundamental role in the establishment of the Intergovernmental Platform on Biodiversity and Ecosystem Services.

Anne-Hélène Prieur Richard also highlighted the achievements of IHDP, especially in studying urbanisation patterns and understanding their dynamics and impacts. IHDP also pioneered new concepts and metrics such as the ‘inclusive wealth index’ incorporating in the measure of wealth manufactured capital, human capital and the ecological limits. Projects within IHDP provided critical insights into governance issues, including on how science-policy interfaces work and how institutions shape our decision-making processes.

Finally, David Carlson presented the legacy of WCRP over its 35 years of existence. The programme pioneered the study of atmospheric, oceanic and cryospheric processes and climate. Its major research programmes focus on global energy and water cycles, stratospheric processes, climate variability and predictability and the cryosphere. Its research laid the basis for the creation of the Intergovernmental Panel on Climate Change in 1988. WCRP is today the leader in the development and implementation of climate models, providing the basis for the IPCC’s 5th Assessment Report. The science developed

by WCRP covers the understanding of Earth system processes, the development of monitoring tools and models, thus providing the foundation for integrated science on climate issues.

In the short discussion with the delegates that ensued, the overarching challenge across the programmes of integration and synthesis was identified, together with the recognition that major advances in science have not fundamentally affected the environmental challenges we face.

The GEC programmes were strongly commended by the General Assembly for the excellence of their activities over the years.

#### **Decision**

- 8.1 To note and celebrate the outstanding achievements of the Council sponsored Global Environmental Change programmes; and
- 8.2 to thank all those organizations that have hosted and supported the Global Environmental change programmes.

### **9. Future Earth: Outcome of initial design and initiatives today**

Mark Stafford Smith introduced the session on Future Earth, first addressing the question of ‘why do we need Future Earth?’ The global environmental change programmes developed the notion of the ‘great acceleration’ and provided fundamental insights into the impacts humans are having on the planet. Future Earth is a response to the need for the scientific community to accelerate the rate at which it is producing and applying knowledge. This called for a new way of doing science, in partnership with stakeholders, funders and the users of science, and for research to become more solutions-oriented.

One defining characteristic of Future Earth is integration: integration of scientific approaches to understanding social and bio-physical systems and their many interactions; and integration across disciplines, from the natural to social sciences, economics, engineering and humanities in order to address complex issues. Another defining characteristic of Future Earth is the approach to co-design and co-produce science to achieve higher societal impacts. Future Earth will move away from the linear model of producing science and then passing it on to society, to collaborating with stakeholders throughout the research process.

Frans Berkhout presented the work of the interim secretariat based at the International Council for Science in Paris since July 2013. Firstly, the establishment of the governance structure of Future Earth had been a major focus, with the establishment of the Scientific Committee in June 2013, an interim Engagement Committee in October 2013 (and a full Engagement Committee in September 2014), the establishment of a five-global hub permanent secretariat (announced in July 2014) and a Governing Council, yet to be finalised. The transition of the core projects, previously operating under the global environmental change programmes, was also a critical step to ensure that scientific networks and activities were maintained. Given the intended scale of Future Earth, the development of a funding structure for Future Earth will be key for the long-term success of the programme. Steps had been initiated to defragment, scale up and diversify the funding sources of global change research. Future Earth has also taken on an important role of agenda-setting, identifying priorities for research related to global change and sustainability issues over a 3-year period to influence national and regional funders.

The discussions that followed the presentations highlighted some concerns around the strong focus on integration and the fact that specialist expertise might be undermined; stakeholder engagement was also identified as currently under-developed, and the need to strengthen the participation of developing countries and include a capacity building component was also raised. Future Earth calls upon the Council members to disseminate and support the work of the programme with their own constituencies. Members strongly applauded this initiative and committed to supporting it fully.

#### **Decisions**

- 9.1 To endorse the Executive Board decision to close IGBP, IHDP and DIVERSITAS as the Council's interdisciplinary bodies and integrate their activities into Future Earth;
- 9.2 to note the major progress made in the implementation of Future Earth;
- 9.3 to thank the funding agencies and donors, who have provided financial support for the interim Future Earth Secretariat; and
- 9.3 to commit to promoting the programme, as appropriate, at the national level and/or via inter-Union activities.

### **10. Urban Health and Wellbeing**

At the last General Assembly in 2011, the decision was made to establish a new interdisciplinary research initiative of ten-year duration on Urban Health and Wellbeing, in collaboration with other partners. Indira Nath presented the progress made over the last three years in establishing the programme. The appointment of the scientific committee was a big step forward and enabled the development of partnerships with organizations including the United Nations University, the World Health Organization and the InterAcademy Medical Panel. The absence of a representative from Latin America was identified as a weakness. It has also been able to develop a presence in major international conferences, including the Open Working Group meeting on the Sustainable Development Goals related to health, and the World Urban Forum.

The programme is developing regional systems analysis, taking into account the limited availability of data in developing countries. The programme has particularly developed in the Asia Pacific region, with a thematic focus identified on transport and agriculture. In December 2013, it was decided that the International Programme Office would be officially inaugurated in December 2014 in Xiamen, China, and, more recently, Franz Gatzweiler was appointed as Executive Director.

In the discussion with delegates, the need to fundraise (including with charities and foundations) was identified, as was the need to collaborate with the newly established programme on urbanisation, resources use and environmental impacts of UNEP. As the programme is very relevant to Latin America and Africa, the programme should aim to expand its networks and activities in these two regions.

#### **Decisions**

- 10.1 To note the progress in implementing the Urban Health programme and welcome the generous support provided by China to host the International Programme Office; and
- 10.2 to commit to promoting the programme, as appropriate, at the national level and/or via inter-Union activities.



## 11. Presentations by candidates for Officers

The ten candidates for election to the various Officer positions gave brief presentations of their credentials and their vision for the International Council for Science.

## 12. Rio+20 and Sustainable Development Goals (SDGs)

The United Nations Conference on Sustainable Development (Rio+20) took place from 20-22 June 2012, in Rio de Janeiro, Brazil. A series of global Intergovernmental Preparatory Meetings were also held over 2011 and 2012 in the run up to the conference. In addition, five Intergovernmental Regional Preparatory Meetings were held in 2011. The International Council for Science was asked by the UN to act as co-organizing partner of the Scientific and Technological Community Major Group for Rio+20. The Council also decided to organize a range of activities and meetings prior to Rio+20 to ensure that it could present the best possible scientific knowledge to Rio+20, and engage the wider international scientific community, and governments and other stakeholders, in discussions on science for sustainable development.

The Council's activities had included: participation in the official global and regional intergovernmental preparatory meetings and Rio+20 itself; the organization of five Regional Science and Technology Workshops; coordination and dissemination of nine policy briefs; co-organization of the international interdisciplinary science conference '*Planet Under Pressure: new knowledge towards solutions*'; organization of a 5-day *Forum on Science, Technology and Innovation for Sustainable Development* at Rio+20; promotion and the launch at Rio+20 of the 10-year international initiative *Future Earth – research for global sustainability*; and mobilising and coordinating the Council's National and Union Members for Rio+20. The Council also executed a comprehensive media and communications strategy.

These efforts served to raise the profile of science in the intergovernmental process. While the final Rio+20 outcome document was lacking in ambition and clear actions for sustainable development, the importance of science for policy was well recognised throughout and several major follow-up processes were set to include a far closer bond between governance and the scientific community than had been possible previously. Furthermore, it had been noted by many observers that the true strength of Rio+20 might not be in the intergovernmental process, but in the range of other processes and agreements that had been reached in parallel, often among non-governmental actors. The Council had also been heavily involved in many of these parallel processes, and had been able to push for key scientific points of interest beyond the intergovernmental process.

Several outcomes in the Rio+20 report called for strengthening the science –policy interface at the global level and presented opportunities for the Council to continue its international science coordination efforts in this regard and for Future Earth to work towards its aim of providing science for policy. These outcomes included:

- The Scientific Advisory Board (SAB) of the Secretary-General of the UN, composed of 26 leading international scientists, launched on 30 January 2014 and hosted by UNESCO with an aim to provide advice on science, technology and innovation for sustainable development to the UN Secretary-General and to Executive Heads of UN organizations.

- The United Nations High-level Political Forum on sustainable development, which will provide political leadership, guidance, and recommendations for implementation of the Rio+20 outcomes. The Forum is also charged with improving the science-policy interface in this context.
- The definition of Sustainable Development Goals (SDGs), modelled on the Millennium Development Goals. An intergovernmental UN Open Working Group (OWG) was set up in January 2013 by the UN General Assembly. It is tasked with developing a set of proposed SDGs during 2013 and 2014, to be submitted to the UN General Assembly for approval in 2015.

Following the Rio+20 process and its outcomes, and in the context of the Strategic Plan, the Council was working towards taking the lead in ensuring that the global scientific community responds to identified needs in this area. The Council played an important role in arguing for the creation of the UN Scientific Advisory Board. The Council's engagement with this Board provided a potential avenue for the Council to ensure that science had a high profile in UN hosted intergovernmental policy making processes, and to strengthen the dissemination of the science developed by the Council's programmes to the UN system.

For the definition of SDGs, the Council provided scientific input and advice through Expert Group Meetings and through preparation of policy briefs and scientific papers on SDGs, and through its role as co-organizing partner at the UN for the Scientific and Technological Community Major Group. The OWG held eight exploratory sessions between March 2013 and February 2014, addressing key themes that are relevant to the development of the SDGs. The Council contributed scientific briefings on several of these topics and oral interventions at the meetings, as well as organized side events at the OWG sessions with relevant UN partners. Between March and July 2014 the OWG had monthly meetings to negotiate consensus around a set of proposed SDGs. The Council has been asked by the UN to continue to contribute to this intergovernmental process in 2014 and 2015 and to coordinate input by the international scientific community to the new High-level Political Forum.

#### **Decisions**

In the context of the overall Strategic Plan 2012-2017:

- 12.1 To note the Council's activities for Rio+20; and
- 12.2 to commit the Council continuing to work with the UN in coordinating the input by the scientific community to implementation of Rio+20 outcomes, notably the SDGs process and the High-Level Political Forum, as well as the UN Scientific Advisory Board.

### **13. Intergovernmental and Science Community Assessments**

#### **13.1 IPCC and the Council programmes; contributions and future challenges**

The Fifth Assessment Report (AR5) of the Intergovernmental Panel on Climate Change (IPCC) provided a clear and up to date view of the current state of scientific knowledge relevant to climate change. It consisted of three Working Group (WG) reports which have now been published ([see http://www.ipcc.ch/report/ar5/index.shtml](http://www.ipcc.ch/report/ar5/index.shtml)) and a Synthesis Report (SYR) which integrated and synthesized material in the WG reports for policymakers. The SYR will be finalized on 31 October 2014.

The International Council for Science sponsored programmes have made important contributions to the AR5 assessment and the previous reports; similarly many scientists engaged with the Council have contributed to the writing teams of the reports and leadership of the working groups. Looking forward, it would be important to identify the likely demands on the new generation of the Council sponsored programmes such as Future Earth.

### 13.2 GCOS and contributions to COP21

GCOS, the Global Climate Observing System is co-sponsored by the International Council for Science, the World Meteorological Organization, the Intergovernmental Oceanographic Commission and the United Nations Environment programme. Its goal is to provide comprehensive information on the total climate system, involving a multidisciplinary range of physical, chemical and biological properties, and atmospheric, oceanic, hydrological, cryospheric and terrestrial processes.

On behalf of the co-sponsors, a review of GCOS had recently been undertaken. Wolfgang Kusch (former President of the Deutscher Wetterdienst, DWD) chaired the Review Board which included two members proposed by the Council (Martin Visbeck, Germany, and Howard Diamond, USA). Following this work (which is scheduled to start late in 2014), the Council will conduct a review of the role of science in the global observing systems, including consideration of the Council's role as a co-sponsor of the global observing systems.

Looking forward, GCOS is planning to assess the adequacy of the global observing system for climate, which would be a report to the United Nations Framework Convention on Climate Change (UNFCCC) COP21 in 2015.

The discussion of this item showed the importance of educational outreach targeted at the public.

### 13.3 Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES)

IPBES, the Intergovernmental Platform on Biodiversity and Ecosystem Services, was established in April 2012 by representatives from 90 governments, following 7 years of negotiations. IPBES is an assessment mechanism, with similarities to the Intergovernmental Panel on Climate Change (IPCC), and will provide policy relevant scientific advice on biodiversity and ecosystem services, in response to requests from governments and other stakeholders. IPBES is under the auspices of UNEP, UNESCO, FAO and UNDP.

The International Council for Science, with the support of DIVERSITAS and IHDP had played an important role in the establishment of IPBES. It had been leading the input of the scientific community during the negotiation phase, and is currently continuing to provide input now that IPBES has been established. The Council's input has consisted of providing views (plenary statements, written contributions) on all aspects of IPBES including rules of procedure, the conceptual framework, and the future programme of work. The Council has also been providing names of scientists for several expert workshops (*e.g.* on knowledge systems, on the conceptual framework), and has also convened scientific workshops, such as on the knowledge generation function of IPBES.

#### 13.4 Disaster Risk Reduction and Assessment

The 30th General Assembly (Rome, Italy, 2011) had been informed by IUGG, together with IRDR and the International Council for Science GeoUnions, of the urgent need for disaster risk assessment, to be undertaken by an intergovernmental body set up for the purpose. The Assembly had concluded that the subject merited consideration by the Council's Executive Board. In November 2013 the Board had considered the report from the Integrated Research on Disaster Risk (IRDR) programme related to the initiative. Whilst the Board recognized that the creation of an intergovernmental structure of the type originally proposed would require political and material support at the highest level, it had considered that an integrated, interdisciplinary scientific synthesis of the state of knowledge on disaster risk reduction, impacts and priorities for research would be important to the post-Hyogo Framework for Action (HFA) process, the Council's Members and relevant UN bodies, and all governments. It decided that the preparation of such a synthesis should begin with a scoping exercise involving the IRDR, the Council's GeoUnions and the Council's Regional Offices.

In a separate initiative, representatives of a group of international, regional and national organizations (including the Council) had met in London, UK on 27-28 March 2014 to discuss how science, engineering and technology could be more effectively used in disaster risk reduction to strengthen resilience. This meeting resulted in a Statement supported by all organizations, which called for the development of an international science advisory mechanism to strengthen the evidence base to effectively reduce disaster risk and enhance resilience, and among other things to carry out periodic monitoring and reporting functions.

The Council was invited by the UN International Strategy for Disaster Reduction (UNISDR) Secretariat to become an Organizing Partner of the World Conference on Disaster Risk Reduction (WCDRR) in Sendai, Japan, in 2015, with responsibility for the Science and Technology Major Group. It accepted and the necessary coordination work is being carried out. The Statement calling for a new science advisory mechanism described above formed an important component of the Council's work as Organizing Partner, and has been carried to the various Regional Platforms held as part of the preparations for the WCDRR, as well as the first PrepCom on 14-15 July 2014 in Geneva.

There could be considerable overlap between the various initiatives, which all seek to enhance the impact of science on the political decision-making process in the area of disaster risk reduction, and foresee periodic assessment, monitoring and reporting activities. Every effort will be made to ensure that the Council's involvement in the development of any high-level advocacy and assessment mechanism is pursued in a coordinated way, with close integration of the work of the Council, its National and Union Members and the IRDR programme.

The importance of educating people on disaster risk was stressed by several participants.

**Decisions**

- 13.4.1 To recognize the initiatives on disaster risk assessment so far undertaken by IRDR, the International Scientific Unions, and the Council's Regional Offices;
- 13.4.2 To request the Executive Board to work closely with UNISDR and other international and intergovernmental bodies to integrate scientific knowledge and assessment into decision-making and actions related to disaster risk reduction;
- 13.4.3 To invite individual National Members to actively encourage their governments to support the proposed intergovernmental disaster risk assessment process

**14. Invited Science Lecture: Bruce Alberts***“Spreading Science for All”*

There are many exciting challenges ahead for biologists. Living organisms are so complicated that we need new methods of analysis to achieve any deep understanding of their molecular mechanisms. For example, even when we have determined each of the hundreds of different molecular interactions that create the actin cytoskeletal system, and know the three-dimensional structures and rate constants for the formation and disassembly of each of its possible sub-complexes, the challenge of computing the outcomes would remain. In the same sense, most of the interesting properties of cells and organisms were “emergent properties”, resulting from a large network of interactions that had non-intuitive outcomes.

More broadly, the knowledge and the problem-solving skills of scientists are critical for every nation – no matter how rich or poor. Thus, for example, science has produced a deep understanding of the natural world that often enabled an accurate prediction of the consequences of current actions on the future. In addition, every society needed the values of science: honesty, generosity, and an insistence on evidence while respecting all ideas and opinions regardless of their source of origin. To spread such values, science education needs to be redefined at all levels, with much less emphasis on the memorization of science facts and terms. Instead, we should be providing empowering experiences in problem-solving that took advantage of the curiosity that children bring to school and increase a student's understanding of the world. Closely related changes in the introductory science courses in college, emphasizing “science as a way of knowing” are the key to driving these reforms.

**15. Science Advice to Governments – feedback from the meeting**

On 28-29 August 2014, just before the International Council for Science General Assembly, the Council had convened a global conference of leading practitioners of high-level science advice to governments in Auckland, New Zealand. Dedicated to an examination of the current and future state of the science for policy practice, the two-day meeting had been hosted and chaired by Peter Gluckman, Chief Science Advisor to the Prime Minister of New Zealand, and he provided feedback from the meeting to the Assembly.

Participants shared the best practices with which science advice was operationalised in different countries and in relation to some of the most challenging policy contexts such as science advice in situations of crisis. The feasibility of setting up an enduring global network of science advisors will be explored.

Issues highlighted during the discussions were:

- The changing nature of knowledge production and complex relationship between the culture of science and culture of policy
- The multiple models of science advice in different jurisdictions around the world
- The multiple roles and approaches within a complete science advisory system, including:
  - The development and delivery of formal advice from committees, academies and science advisors
  - Opportunities for informal advice from individual science advisors
  - The importance of preparedness research, advisory infrastructure and an identified leadership voice for science advice in situations of crisis
- Qualities/skills required in a science advisory system and a science advice practitioner
- Need to develop the field (of practice and of study) – the ‘science of science advice’ to better understand the challenges, why and where.
- Need to build practical skills – likely through a series of capacity-building workshops for science advice to governments in different contexts
- There was a unanimous expression of support from conference participants to keep the momentum up and further develop an inclusive global network for Science Advice to Governments
- A formal report from the conference will be produced and made available at [www.globalscienceadvice.org](http://www.globalscienceadvice.org) . This website is also being maintained as an archive of the conference including video footage of speeches, interventions and discussions in their entirety.

## Decisions

15.1 To note the outcomes of the “Science Advice to Governments” meeting

## 16. Committee on Freedom and Responsibility in the conduct of Science (CFRS)

The policy Committee on Freedom and Responsibility in the conduct of Science (CFRS) was established in 2006, with the remit to expand the International Council for Science’s traditional role in defending the freedom of science by incorporating consideration of the responsibilities of scientists. The 2<sup>nd</sup> three-year CFRS work-plan had been endorsed by the 30<sup>th</sup> GA, together with revised wording of the Council’s Statute 5 (the Principle of Universality), which emphasised the balance between freedoms and responsibilities. The Committee Chair, Leiv Sydnes, gave a presentation on the implementation of the past work-plan and introduced the plan for the next three years. An overview of the Committee’s activities can be found at <http://www.icsu.org/freedom-responsibility>.

The main activities of the Committee could be classified in the following categories:

- **Aspects of Freedom** of movement of scientists as they practice science and execute their roles in society. In the last three years, the Committee dealt with 23 cases (around the globe) that were related to human rights of scientists. The Chair noted that cases were becoming more complex and stressed the need for the Council’s members to follow the Committee’s guidelines for conference organizers.

The Committee had had to deal with a number of issues related to the autonomy of academies, and also that of academic freedom, compiling a comprehensive list of texts provided for this in national constitutions.

- **Aspects of Responsibility** – the Committee had co-sponsored on the 3<sup>rd</sup> World Conference on Research Integrity (WCRI), held in Montreal in 2013. The next such conference would be held in Rio de Janeiro, Brazil, and the Committee was again involved in programme development. The Committee had also engaged with the Committee on Publication Ethics (COPE), which handled some cases of possible misconduct.
- **Balancing Freedoms and Responsibilities** – Workshops have been held that led to the development of advisory notes and/or publications which are available on the Council’s homepage.
- **Outreach activities** – the Committee was engaged in outreach activities to improve the visibility of the Council. The Committee had established the Freedom and Responsibility Portal on the Council’s website and drafted a brochure on “Freedom and Responsibility in Science”

The engagement of the Council’s Members was particularly important for the work of CFRS, whether at the level of resolving cases or visa issues of individual scientists or by co-sponsoring workshops. Increasing this engagement would be a major focus of the Committee’s work for the next triennium. As part of this, the aforementioned CFRS brochure on the rights and responsibilities of scientists had just been published.

Since October, 2010, the activities of CFRS have been very generously supported by a dedicated Executive Secretary (50% FTE) provided and hosted by the Swiss Academy of Sciences (SCNAT). As agreed by the Council and the SCNAT, this arrangement would come to an end in September 2015, and a new host organization is being sought. An open call for hosting proposals would be made after the present General Assembly.

#### **Decisions**

- |      |  |
|------|--|
| 16.1 | To note the report on CFRS activities and endorse the Committee’s work-plan for 2015-2017; and |
| 16.2 | to thank the Swiss Academy of Sciences for its generous support for the CFRS Secretariat.      |

#### **17. Open Access**

Data and information is a key priority under the universality of science in the Strategic Plan II, 2012-2017, and it was highlighted in the International Council for Science Foresight exercise in 2012 as being an area of critical importance in shaping the future of international science.

For the last decade, the Council had carried out a number of strategic assessments and reviews of this area, the most recent of which was a report from the *ad hoc* Strategic Coordinating Committee on Information and Data (SCCID, 2011). One of the recommendations in the SCCID report was that “*ICSU should establish a forum for the exploration and eventual agreement in relation to science of all the terms used under the broad umbrella of Open Access*”. This was taken up by CSPR at its 23rd meeting in March 2012, where it recommended that the Council develop a project which would enable it to arrive at a common position on the broad issues of Open Access. The Executive Board had

established an *ad hoc* subgroup to take this forward, and it had been agreed that the project should encompass access to both information (*i.e.* science publications) and data, as well as related bibliometric indices and incentives.

The Council's Members had been requested to provide initial input on these issues and a meeting of the Board sub-group and invited experts from the relevant ICSU data and information bodies (CODATA, WDS, INASP, ICSTI) of the Council took place in Paris in September 2013. A consolidated draft paper had been prepared under the supervision of John Ball. The document had been through several iterations, including examination by CSPR and CFRS and consultation with the full Council membership.

It was noted that the report aimed at surveying and making recommendations concerning open access and evaluation by metrics, taking into account the needs of different subject areas and countries.

The report also noted that the goals of open access should yield a scientific record that would be free of financial barriers for any researcher to contribute to and free of financial barriers for any user to access immediately on publication. Scientific records should be made available without restriction on reuse for any purpose, subject to proper attribution. It should be quality-assured and published in a timely manner as well as archived and made available in perpetuity.

The following points were raised:

- The Council cannot enforce these goals, but can nevertheless be influential in fulfilling them
- There are financial implications for any good scientific publication (whether by commercial, learned society or not-for-profit publishers) – the challenge is to create viable open access models that do not disadvantage those with limited ability to pay
- Lessons have to be learnt from models that have come close to satisfying the goals of open access, for example, the Public Library Of Science (PLOS)
- Constructive competition from new models that offer a quality service at a reasonable cost can help move the present system to one that is better suited to the needs of open science

It was noted the Executive Summary of the Report contained eleven specific recommendations concerning scientific publication (business models, quality assurance, archiving, software and code), data (citations, conditions for reuse, embargos, data management, and endorsement of OECD guidelines) and the metrics (use in evaluation, endorsement of DORA). It was recommended that the Council endorse and support the San Francisco Declaration on Research Assessment (DORA), which recognises the need to improve on the ways in which the outputs of scientific research are evaluated.

It was felt that there is a need for establishment of a system for accreditation of journals and that the Council should look into the possibility of leading the process for developing metrics with clear guidelines of the accreditation process.

Some specific revisions to the Report were proposed and will be incorporated as follows:

- The text under “VII Legitimate constraints on open access” had been modified to accommodate the issue of patents, which was not initially considered in the report.



- The following new recommendation was added to the Executive Summary: “The terms of contracts governing the purchase of scientific periodicals and databases by libraries serving universities and research establishments should be publicly accessible”.

#### **Decision**

17.1 To endorse the text presented in document 31GA/17.1 with the proposed revisions as the Council’s position on open access to scientific data and literature and the assessment of research by metrics.

### **18. CODATA review**

In accordance with the International Council for Science’s Second Strategic Plan 2012-2017, and Decision 18.3 of the 30th General Assembly, the Committee for Scientific Planning and Review (CSPR) had appointed an *ad hoc* Panel to carry out a review of the Committee on Data for Science and Technology (CODATA). The Report of the Review Panel was examined by CSPR at its 26th meeting in September 2013 and the CSPR was in broad agreement with the views expressed in the Report. It recognized that most of the Review Report’s recommendations had a direct bearing on the working relationship between CODATA and the World Data System (WDS) and a better integration of the data- and information-related activities and concerns of the Council’s family as a whole.

It decided to endorse the recommendations of the Review Panel directed towards CODATA and authorized the publication of the Report as it stood. However, in the case of Recommendation 13, it concluded that the wording addressed to the Council itself was perhaps in need of modification. While it supported very much the addressing of data and information issues within the various research programmes of the Council, the systematic granting of *ex-officio* membership of the respective Scientific Committees to CODATA was considered inappropriate. In addition, whilst there was certainly strong support for the idea that CODATA and WDS should work more closely and strategically together in the future, the suggestion that they should necessarily merge into a single Interdisciplinary Body was thought to be too prescriptive, and the Committee felt that other organizational options and models needed to be explored.

At its 110<sup>th</sup> Meeting on 5-6 November 2013, the Executive Board endorsed the conclusions of CSPR, along with the slight reservations described above, and decided to submit the Report for consideration by the General Assembly.

Kari Raivio, Chair of the Review Panel, presented the findings of the Review and highlighted some of CODATA’s achievements over the last three years: The President of CODATA then presented the Committee’s response.

In the ensuing discussion, the following points were made:

- In order to improve its visibility, CODATA should source funds and organize regional/international events in partnership with other organizations.
- Investigate the possibility of having a more strategic approach with long term goals that would involve human capacity development, as well as involving young and new career scientists.

- The possibility of a merger with WDS was raised but felt to be premature, it was agreed that CODATA should explore ways of working with the WDS and open access to support the Council's strategy.

#### **Decisions**

- 18.1 To note the report on CODATA; and  
 18.2 to support CODATA and WDS, including via the setting up of national or Union data committees, where appropriate.

### **19. Report of the External Review**

The International Council for Science's External Review Panel membership had been finalized in October 2013 and consisted of 11 members reflecting the range of responsibilities and interests of the Council with Peter Knight as chair. The review process had been supported by an independent external review secretariat provided by the Materials Research Society of Singapore (MRS-S).

The first Review Panel meeting took place in October 2013 in Singapore. After this meeting the Panel set up a broad consultation with the Council's membership and stakeholders. The meetings of the Panel were also supplemented by teleconferences.

Five members of the Review Panel had visited the Council's Secretariat in Paris in January and met with all staff and two more meetings of the Panel were held in January and March. A first draft of the Report was sent to the Executive Board in April. The final Report of the External Review Panel was not discussed by the Executive Board prior to the distribution of the Report to members, for timing reasons.

Participants discussed the main recommendations of the Report on vision and visibility, relations with other global scientific institutions, funding, an improved governance structure and the Regional Offices. Some surprise was expressed that no members of the press were present at the Assembly, a meeting of the international science community.

It was agreed that follow-up action on the Report needed to be undertaken rapidly and should not wait for decision until the next General Assembly.

#### **Decisions**

- 19.1 To agree that time be allowed for further consultation with members and that the EB be tasked with formulating a response to the Report; and  
 19:2 to agree that major items in the response be submitted to the membership via an electronic General Assembly for decision as soon as possible.

### **20. Report on World Data System (WDS)**

Jean-Bernard Minster, Chair of the WDS-SC, reported to the General Assembly on developments and achievements of the International Council for Science World Data System.

The World Data System (WDS) was established as an Interdisciplinary Body of the Council by decision of the 29<sup>th</sup> General Assembly and represented an important transition from previously stand-alone centres and services to a globally interoperable distributed data system that incorporated emerging technologies and new scientific data activities.

The mission of WDS was to promote universal and equitable access to, and long-term stewardship of, quality-assured scientific data and data services, products, and information covering a broad range of disciplines from the natural and social sciences, and humanities. WDS aims to facilitate the scientific research endeavours related to the Council by coordinating trusted scientific data services for the provision, use and preservation of relevant datasets.

The main achievements included:

- The establishment of a dedicated WDS International Programme Office in Tokyo in 2012, hosted by the National Institute of Communications Technologies (NICT)
- The development of a five-year Strategic Plan for 2014-2018, structured around five strategic targets and their subtargets. It was stated that the Strategic Plan would be accompanied by successive two-yearly Implementation Plans, with concrete tasks and activities, and report on progress towards their completion.
- The establishment of Working Groups to coordinate and facilitate the implementation of activities and projects addressing the goals and objectives of WDS, as well as to build on voluntary contributions from WDS Members and other interested stakeholders.
- The close collaboration with the Council's Committee on Data for Science and Technology (CODATA) in the organization of a joint conference, SciDataCon 2014 (2–5 November 2014, New Delhi, India).

Discussion focused on whether the long-term merger of CODATA and WDS was planned. Although the idea to have a single organization serving data needs to the global community was seen as positive, the “marriage” of two organizations was not considered as the best solution to achieve that goal. Continuous strategic collaboration between CODATA and WDS that would lead to an organic merging of the thinking of two organizations and to a joint understanding that they were one entity was seen as a better approach to take.

#### **Decision**

- |   |
|---|
| <p>20.1 To note the progress made in the implementation of the World Data System; and</p> <p>20.2 to thank Japan for its generous support in hosting the WDS-IPO;</p> |
|---|

#### **21. Invited Science Lecture: Mark C. Quigley**

*“Predicting and reducing the impacts of future earthquakes”*

Mark C. Quigley, Associate Professor, University of Canterbury, delivered a lecture on “Predicting and reducing the impacts of future earthquakes”. He presented his observations of earthquake damage from around the world, with a particular emphasis on understanding how the geologic record of past earthquakes could enable the prediction of future earthquake impacts, and how top-down and bottom-up approaches to earthquake science communication could be implemented to reduce the impacts of future earthquakes.

## 22. Regional Offices

The Directors of the Regional Offices for Africa (ROA), and Latin America and the Caribbean (ROLAC) and the Chair of the Regional Committee for Asia and the Pacific (RCAP) presented three year progress reports.

The Regional Offices were congratulated for their accomplishments since the last review. During the discussion, it was suggested to organize meetings with the International Council for Science's National Members from each region on a regular basis; results of these meetings could potentially be presented as publications. The importance of science education was emphasised, particularly directed to mathematical application. Some opportunities for collaboration were suggested, including holding joint meetings.

The Directors were also asked about their key concerns. For the Council's ROA, these included:

- As the Sub-Saharan Africa region was not represented in the Future Earth global Secretariat, ROA was making efforts to facilitate the uptake of Future Earth in the region. For that, ROA recently organized a meeting aimed at engaging regional stakeholders and National Members in the programme.
- To help strengthen national support for science, the need to expand the Council's membership in the region was emphasized. ROA was often preoccupied with encouraging Members to pay their dues. The turnover within National Members was often a cause of disconnect between Members and ROA.

The Chair of the RCAP emphasized the need for enhanced knowledge exchange between scientists and policy makers in Asia and the Pacific. Moreover, not many National Members, especially from developing countries, were participating in ROAP activities.

The Director of ROLAC highlighted the need to work more with the Council's Scientific Unions. Another concern for the region was lack of funds for implementing ideas. The importance of having focal points in different countries was also emphasized to foster cooperation between ROLAC and National Members. However, such focal points were not in place in all the countries in the region.

The need for increasing the visibility of the Regional Offices was emphasized. It was stated that the Council's Members should also play a more active role in this task, by promoting the Council in different events as well as informing scientists on the ground. It was recommended that the Regional Offices should focus more on the entire region, rather than mainly on countries where they were hosted.

It was recommended to all Unions to intensify their connections with the Regional Offices.

### Decisions

Within the context of the overall Strategic Plan 2012-2017:

- 22.1 To note the reports on the activities of the Regional Offices; and
- 22.2 to thank the host organizations for their generous support to the Offices and to commit to work with them and other partners to strengthen the activities of the Offices.

### 23. Election of Officers

The Nominating Committee's slate of nominations for Officers was sent to Members on 30 April and was recirculated to Members in July, together with a resubmission.

#### Decision

23.1 To elect Daya Reddy (President-Elect), Li Jinghai (Vice-President for Scientific Planning and Review), Michael Clegg (Vice-President for External Relations), David Black (Secretary-General), and Barbara Erasmus (Treasurer).

### 24. Announcement of the results of the Election of Officers (see Agenda Item 23)

### 25. Date and Place of the 32<sup>nd</sup> General Assembly

Invitations to host the 32<sup>nd</sup> General Assembly in 2017 had been received from the Academy of Sciences located in Taipei, and from Canada. The Board considered these at its 111<sup>th</sup> meeting in April and agreed that both fulfilled the International Council for Science's requirements. Representatives of the Academy of Sciences located in Taipei and Canada both gave short presentations on their invitations.

A call for invitations to host the 33rd General Assembly of the Council in 2020 would be sent to Members in the coming months.

#### Decision

25.1 To accept the invitation from the Academy of Sciences located in Taipei to host the Council's 32<sup>nd</sup> General Assembly.

### 26. Early Career Science (ECS) Panel

Following a suggestion from the 30<sup>th</sup> General Assembly, six early career scientists were invited to participate in this panel: Kim Nicholas, Lund University (Chair), Fola Babalola, Center for Environmental Economics and Policy in Africa, University of Pretoria, South Africa, Yvonne Grunder, Department of Physics at Liverpool University, Christine Jasoni, Department of Anatomy at the University of Otago in New Zealand, Wilma Waterlander, University of Auckland in New Zealand, and Jianzhong Xu, Chinese Academy of Sciences.

After a large effort of collecting input in the social media from ECS they had identified three priorities for supporting ECS that link with the International Council for Science's strategic priorities. In terms of international research collaborations, they focussed on career support including ECS institutions and mentoring; in terms of science for policy, they focussed on recognition and incentives for ECS to engage with these activities; and for universality of science, they focussed on ECS leadership.

Regarding the value that ECS can add to science and to organizations like ICSU they emphasized that they would be implementing the science of the future, and would also be the most affected by current decisions and/or lack of action. In order to achieve sustainable solutions, we might need very drastic changes to the system which seem very difficult to initiate. Young scientists can bring the vision and new ideas for real constructive change, since they believe that they can change the world and the world needs that optimism. They are well versed in communicating science in a much broader sense than ever before and

communicate increasingly with scientists outside their own disciplines, with social scientists, policy makers, teachers, children, and people all over the world. Social media constitutes a powerful mechanism to increase the strength and effectiveness of the Council and its members in the global context. ECS should be the Council's ambassadors throughout their networks.

Panellists remarked that the Council could be an excellent international platform for young scientists to establish collaborations, and communicate with communities from different scientific disciplines. The Council could serve as the coordinating body for a Mentorship Programme bringing together mentors and mentees through its own virtual platform.

The representatives of ECS then asked the Council and the Council's National and Union Members to (i) Integrate ECS in the member delegations and discuss the issues already mentioned with them.; (ii) integrate ECS in their next external reviews, other conference delegations and also as reviewers for conference reports; (iii) build and maintain own early-career networks and use these to communicate with the wide community of ECS.

Representatives thanked the Council for inviting them, and the Deutsche Forschungsgemeinschaft (DFG), the Royal Society in the UK, the Royal Society of NZ, and the China Association for Science and Technology for sponsoring them.

The inclusion of this discussion in the Agenda of the GA was welcomed by the participants and several committed to including young scientists in the delegations in future.

The UK delegation proposed the following decision (seconded by the US delegation) and this was approved by participants.

#### **Decision**

26.1 To urge the Executive Board to take action within the Council to integrate and involve early career scientists in advisory, review and governance bodies as appropriate;  
to encourage its National and Union members, interdisciplinary bodies, and associates to support early career scientists through mentoring and career support networks and opportunities and incentives to engage in science for society;  
to include them in day-to-day business between GAs and in the GA delegation; and  
to report back on progress made to the next GA.

## **27. Reports of the Treasurer and Chairman of the Committee on Finance**

### Finances, 2012-2014

The International Council for Science's finances are the responsibility of the Treasurer, who works closely with the Secretariat in Paris and is assisted by the Committee on Finance (CF), which is a sub-committee of the Executive Board and meets twice a year. The prepared annual accounts were verified by an external auditor and, since 2006, have been subject to approval in an electronic General Assembly held in June each year.

A new dues structure for the Council, index-linking dues to national GDP or Union budgets, had been approved at the 29<sup>th</sup> General Assembly and became operational in 2012. On the whole the transition to this new structure went smoothly, although it unfortunately coincided with a global economic crisis which created a severe burden for some National

Members. Six written appeals for dues reductions had been considered by the Committee on Finance and Executive Board and a process had been agreed whereby exceptionally these Members could continue to pay at a reduced rate for a limited period. This was dependent on these Members paying any arrears at that reduced rate and providing a firm commitment and realistic plan for the payment of full dues as of 2018.

In addition to core funding, mainly from Member dues, a considerable amount of 'external' funding had been obtained over the past 3 years to support specific activities such as Rio+20 and the development of Future Earth. This had enabled dedicated staff to be recruited on a short-term project basis, including, for example, to provide the interim Secretariat for Future Earth. However, even with this external funding, the Council's accounts only represent a fraction of the total support for the Council's activities and programmes worldwide.

The Council had a statutory reserve, the level of which was set at €1.5M. This was managed in a mixed investment portfolio.

#### **Decisions**

- 27.1 To note the report of the chair of CF and Treasurer;
- 27.2 to discharge the Treasurer from any liability for the period, 2011-2014; and
- 27.3 to thank all those Members and bodies that have provided in kind and financial support for activities and programmes during 2012-2014.

#### Budget and dues 2015 and 2016-2018

The outline budget and dues for 2015 had been approved at the 30<sup>th</sup> General Assembly. The Executive Board considered an updated budget for 2015 at its meeting in April 2014. The outline budget plan for 2016-2018 had been prepared with the Treasurer and Committee on Finance and approved by the Executive Board. It included a proposed 3% increase per annum in overall dues income. These outline budgets were 'conservative' in that only assured income was included and expenditure was balanced against this income. It was also envisaged that some funds would be re-invested in activities from the accumulated general fund (~1M€ at the end of 2013). As for the past three years, additional external funds would be sought to implement the full programme of the Council's activities up to 2018.

The National Member dues for the period 2016-2018 had been adjusted on the basis of average GDP for the period 2010-2012. As this was a period of global economic fluctuations, a number of Members had changed categories and would be expected to pay either more or less during the period 2016-2018. In order to smooth this transition it was proposed that a mechanism be implemented whereby only half of the proposed change in payment be assumed for an initial period of 3 years.

#### **Decisions**

- 27.4 To approve the outline budgets, as proposed by the Executive Board, for the period 2016-2018, including an increase of 3% per annum for total dues income (**Annex 2**);
- 27.5 to approve the table of revised dues for 2016-2018 (**Annex 3**); and
- 27.6 to approve the proposed mechanism for smoothing the transition between dues categories (**Annex 4**).

## 28. Election of Ordinary Members of Executive Board

The slate of names for representatives of the International Scientific Unions and the National Scientific Members were posted in the morning of Monday, 1 September.

### Decision

28.1 To elect four Ordinary Members of the Executive Board from the International Scientific Unions (Manuel de León, Orhan Altan, John Buckeridge, Cheryl de la Rey) and four Ordinary Members from the National Scientific Members (John Ball, Raghavendra Gadagkar, Nicole Moreau, and Kazuyuki Tatsumi).

## 29. Proposals for new International Council for Science Members

One application from the International Cartographic Association (ICA) for Scientific Union membership in ICSU was presented to the Assembly for consideration.

In accordance with Rule of Procedure 8.2 c) the Executive Board had examined this and recommended consideration of the application by the General Assembly. The representative of ICA made a brief presentation.

### Decision

29.1 To admit the International Cartographic Association (ICA) as an International Scientific Union Member.

## 30. Announcement of the results of the Election of Ordinary Members of Executive Board (see Agenda Item 28)

## 31. Adoption of Resolutions of the General Assembly

The Chair of the Resolutions Committee presented one proposed resolution to the General Assembly.

### Decision

31.1 To adopt the following Resolution:

*The General Assembly requests the Executive Board to give urgent consideration to all aspects of the nomination process, including the formation of the Nominating Committee.*

## 32. Closing Ceremony

The President invited the Academy of Sciences, Taipei, host of the next General Assembly, to say a few words. This was followed by a brief presentation from the Royal Society of New Zealand, host of the present Assembly, who closed with a traditional Maori song.

## 33. Incoming Presidential Address

Gordon McBean, who assumed the Presidency of the International Council for Science at the end of the Assembly, gave his Presidential Address in which he first thanked the delegates for the opportunity to address them. He mentioned that he had been very attentive the last three years, and he thanked: Yuan Tseh Lee for his leadership of the



Council over the past three years, and for providing advice and positive examples with respect to the role of the President; Steven Wilson for his excellent contributions to the Council over the past three years; all his colleagues on the Executive Board and in the Secretariat, including the Regional Offices; the Royal Society of New Zealand for hosting this great 31<sup>st</sup> General Assembly; the new EB members; and all delegates and attendants, who made the Council what it is and can be.

He outlined his vision for the future of the Council and its role as the voice of and for science. Looking ahead, the Council should build on its strengths, and the path ahead should reflect the learning from the Report of the External Review Panel.

The Council's leadership has to be able to count on the members to achieve its mission and vision, and needs to address governance issues by introducing informal communication with members between the EB meetings and the GA and bridging between programmes and activities and between global and regional interests. Partnerships with other global science organizations should be strengthened.

He said that he was very proud of the role the Council has played, and would continue to play, in planning, coordinating and "making happen" global scale research for the benefit of all. The Council had demonstrated its ability as a global non-governmental scientific organization to bring together scientists across most disciplines and national academies and councils from around the globe. It had provided and would continue to provide societies and governments with policy relevant science that can and should form the basis of policy making. With the full participation of its members, the Council would further enhance the benefits for society of good science and policy for science.

#### **34. Any Other Authorized Business**

There was no other authorized business.

#### **35. Close of meeting**

Yuan Tseh Lee thanked all for attending the meeting. He also thanked the International Council for Science Secretariat led by Steven Wilson and last and not least he thanked the host organization, the Royal Society of New Zealand, and all the people involved in the organization of the Assembly.

There being no other business, the President declared the Assembly closed.

#### **Annexes**

- Annex 1 List of Participants
- Annex 2 Outline budgets for the period 2016-2018, including an increase of 3% per annum for total dues income;
- Annex 3 Table of revised dues for 2016-2018
- Annex 4 Mechanism for smoothing the transition between dues categories



3 December 2014  
Rev. 2

## 31<sup>st</sup> GENERAL ASSEMBLY

### Address List of Participants

*This participants' list has been generated directly from the registration forms for the General Assembly as completed by each participant. If you have any corrections, please send these to Nora Papp (nora@icsu.org).*

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## ICSU Budget 2016 -2018, in Euros

Where an exchange rate is necessary, this is based on the average rate in the first trimester of 2010 of 1\$ = 0.747€.

staff	INCOME	2015			2016	2017	2018	notes
		GA	2015 EB 111a	2015 EB 111b	GA 31	GA 31	GA 31	
	<b>I. NON-EARMARKED</b>							
NdM	Member Dues							
	National Members	2 658 775	2 474 775	2 474 775	2 519 679	2 595 273	2 673 136	1
	Union Members	188 279	188 795	188 795	194 000	200 000	206 000	2
NdM	Associate Dues	10 500	10 500	10 500	10 500	10 500	10 500	3
NdM	Income from ICSU bank accounts	15 000	15 000	15 000	15 000	15 000	15 000	4
NdM	Other income							5
	<b>II. EARMARKED</b>							
CT	USA Contribution to WCRP							6
KP	NSF			285 000	285 000	285 000	285 000	7
TBF	France	500 000	500 000	500 000	500 000	500 000	500 000	8
HM	IRDR	250 000						9
DG	Global sustainability/Future Earth		275 000	275 000				10
KP	SIDA grant							11
NdM	Other income			275 000	96 000			12
	<b>TOTAL INCOME</b>	<b>3 622 554</b>	<b>3 464 070</b>	<b>4 024 070</b>	<b>3 620 179</b>	<b>3 605 773</b>	<b>3 689 636</b>	
	<b>EXPENDITURE</b>	<b>2015</b>			<b>2016</b>	<b>2017</b>	<b>2018</b>	
		<b>GA</b>	<b>2015 EB 111a</b>	<b>2015 EB 111b</b>	<b>GA</b>	<b>GA</b>	<b>GA</b>	
	<b>1. POLICY COMMITTEES</b>							
MB	1.1 CSPR	70 000	70 000	70 000	70 000	70 000	70 000	13
	1.2 CSPR Planning and Reviews	60 000		34 000	40 000	30 000	30 000	14
RR	1.2.1 Reg. Office reviews	30 000	30 000	30 000	30 000			15
	1.2.3 Obs system review		30 000					16
RR	1.3 CFRS	67 500	67 500	87 500	70 000	70 000	70 000	17
NdM	1.4 Salaries	240 000	242 000	242 000	248 000	255 000	263 000	18
	<b>Sub-Total</b>	<b>467 500</b>	<b>439 500</b>	<b>463 500</b>	<b>458 000</b>	<b>425 000</b>	<b>433 000</b>	



	<b>7. OUTREACH</b>							
DY	7.1 Publications & Communication	48 000	40 000	61 000	44 000	40 000	40 000	39
YKA	7.2 Informatics	71 000	71 000	71 000	71 000	71 000	71 000	40
VL	7.3 Travel	35 000	25 000	25 000	25 000	25 000	25 000	41
NdM	7.4 Salaries	223 000	279 000	287 000	279 000	279 000	279 000	42
	<b>Sub-Total</b>	<b>377 000</b>	<b>415 000</b>	<b>444 000</b>	<b>419 000</b>	<b>415 000</b>	<b>415 000</b>	
	<b>8. ADMINISTRATIVE SUPPORT</b>							
CT	8.1 Staff development/training	35 000	35 000	35 000	35 000	35 000	35 000	43
NdM	8.2 Depreciation on fixed assets	20 000	20 000	20 000	20 000	20 000	20 000	44
EL	8.3 Bldg maintenance	20 000	20 000	20 000	20 000	20 000	20 000	45
TBF	8.4 Office expenses	150 000	150 000	150 000	150 000	150 000	150 000	46
NdM	8.5 Audit fees/Legal advice	40 000	30 000	30 000	30 000	30 000	30 000	47
NdM	8.6 Bank charges	15 000	15 000	15 000	15 000	15 000	15 000	48
NdM	8.7 Salaries	578 000						49
	8.7.1 Project admin support		341 000	351 000	361 000	372 000	383 000	50
	8.7.2 Finance, HR and services		421 000	434 000	447 000	460 000	474 000	51
	<b>Sub-Total</b>	<b>858 000</b>	<b>1 032 000</b>	<b>1 055 000</b>	<b>1 078 000</b>	<b>1 102 000</b>	<b>1 127 000</b>	
	<b>9. CONTINGENCIES</b>							
NdM	9.1 General contingencies	30 000	30 000	30 000	30 000	30 000	30 000	52
NdM	9.2 Retirement indemnity	39 000	20 000	20 000	30 000	30 000	30 000	53
	<b>TOTAL EXPENDITURE</b>	<b>3 700 500</b>	<b>3 732 500</b>	<b>4 033 750</b>	<b>3 732 245</b>	<b>3 708 745</b>	<b>3 745 950</b>	
	<b>EXPECTED NET</b>	<b>-77 946</b>	<b>-268 430</b>	<b>-9 680</b>	<b>-112 066</b>	<b>-102 972</b>	<b>-56 314</b>	54

total salaries

1 918 000

2 050 000

2 100 000

2 095 000

2 149 000

2 206 000



## **Notes on the outline budget for 2016 -2018, EB 111**

### **Income**

1. *National Member dues*  
A 3% increase per annum in National Member dues is assumed.
2. *Union Member Dues*  
A 3% increase per annum in Union Member dues is assumed
3. *Associate Dues*  
21 Scientific Associates at €500.
4. *Income from Bank Accounts*  
Based on the results from 2011 and 2012.
5. *Other Income*  
No additional non-earmarked income confirmed for 2016-2018.
6. *USA for WCRP*  
A grant application to NSF for WCRP funding has been submitted for 2014-2018. If this is successful the corresponding expenditure will appear on line 2.1
7. *NSF*  
The Previous 5-year grant from NSF (NSF-Geo) terminated at the end of September 2013 and a new application for a total of \$1.9M (€1.42M) was submitted in November 2013. This grant has been approved 'in principle' though the final award may be slightly lower than requested. The grant will support activities related to the environment and science for policy, including some staff costs.
8. *French Subvention*  
ICSU receives €500,000 per year from the French Government. This subvention currently continues only until 2016, although it is projected that it will be renewed for a 5 or 10year further period.
9. *IRDR income*  
Up until 2014, the Academy of Sciences located in Taipei has generously provided €250,000 annually to support the IRDR International Centre of Excellence. This will have to be renegotiated for 2015 and beyond.
10. *Global sustainability/Future Earth*  
In 2015, €275k of a dedicated NSF-FE grant is allocated to Future Earth. In 2016 the permanent secretariat for Future Earth will have been established and it is not expected that ICSU will handle earmarked funding for this.
11. *SIDA grant*  
Sida have recently invited ICSU to submit a new 5 year grant proposal for support from 2015 onwards, following their initial 18 month grant.
12. *Other income*  
A large donation has been secured from the Tang Prize Foundation (China:Taipei). This is for a total of \$1m (~€726k), 2014-2016.

### **Expenditure**

13. *Committee for Scientific Planning and Review*  
The CSPR will meet twice per annum in Paris.

14. *CSPR Planning and Review*

With the exception of the Regional Office reviews, to be completed in 2016, the budget for CSPR planning and review activities is not sub-divided to show the actual activities. NSF-Geo funds (€22.5k for 2016 and 2017, €12k for 2018) are allocated for reviews of interdisciplinary bodies.

15. *ROA review*

The review of the Regional Office for Asia and Pacific will be completed in 2016

16. *Observing System review*

The planned review of ICSU's role in relation to the Observing systems should be completed in 2015.

17. *Committee on the Freedom and Responsibility in the conduct of Science*

CFRS will meet twice per annum in 2016-2018

18. *Executive Salary Costs*

This budget line includes half the cost for the Executive and Deputy Executive Directors. The other half is under budget line 6.3.

19. *USA contributions to WCRP*

Contribution from NSF if secured (see note 5)

20. *Hazards/IRDR*

Costs for one meeting of the IRDR Scientific Committee per annum to be hosted in Paris (a 2<sup>nd</sup> meeting will be in Beijing and paid for by the IPO). NSF-Geo funds will be used for this.

21. *Ecosystems and Society (PECS)*

Support for one meeting of the Scientific Committee for this new programme was initially budgeted up until 2013 only and then extended up to 2015, whilst it transitioned into Future Earth.

22. *Future Earth initiative*

In 2015 expenditure on the Future Earth interim secretariat will be concluded.

23. *Urban Health*

Support for one meeting of the Scientific Committee for the Urban Health programme to be held in Paris annually. The costs for a second annual meeting in Xiamen will be covered by the host for the new International Programme Office.

24. *Strategic Data and Information initiatives*

According to the agreement with the IPO host, ICSU is committed to cover costs for one meeting of the Scientific Committee for the ICSU World Data System. NSF funds (and Tang Prize funds in 2016) are allocated to support this and other WDS-SC activities

25. *Rio+20/Science in Society*

This line also includes costs for ICSU's continued involvement with the monitoring of the Sustainable Development Goals, IPBES and other Science in Society activities, such as the meeting of Science Advisors. NSF-Geo funds will be used to support these activities.

26. *Executive Board New Initiatives*

€50k from the Tang Prize funds have provisionally been allocated to this line for distribution by the Executive Board in 2016. There are currently no funds allocated for subsequent years, when new initiatives will depend on new income.

27. *Salaries Future Earth*

Support for the Future Earth interim Secretariat and associated short-term staff will finish in 2015, when the permanent secretariat becomes operational.

28. *Salaries other initiatives*

Support for 2 Science Officers working on various programmes and initiatives. One of these posts is mainly paid for by the NSF-Geo grant.

Note also that much of the administrative support is also directed towards programmes and initiatives (see note 50).

29. *Regional Offices Direct support*

Core support to each of the 3 Regional Offices of €75k per annum. An additional €1.25k per annum is available from NSF-Geo for regional activities linked to Future Earth.

30. *SIDA grant*

Sida funding is being sought for 2015-2019 for activities in Africa and Latin America and the Caribbean (see note 11).

31. *Salaries*

The costs for a Science Officer in Paris, whose role includes liaison with the Regional Offices.

32. *Travel*

Staff travel costs associated with coordination of Regional Office activities

33. *Grants Programme*

A grants programme for 10 grants at ~ €30,000 each is budgeted each year.

34. *ICSU General Assemblies*

The costs for General Assemblies are budgeted over three years.

35. *Executive Board, Officers and CF*

Costs for two EB meetings and one Officers' meeting per annum in Paris. This budget is increased in 2017 to reflect the additional costs of attending the General Assembly. The costs for Committee on Finance (CF) meetings, which are held immediately prior to the EB, are also included in this line.

36. *EB at Unions/IB GAs*

Costs of members of the EB representing ICSU at General Assemblies of Unions and Interdisciplinary Bodies.

37. *Unions meeting*

A meeting of Union representatives is planned at the 18mth interval between General Assemblies. It is proposed that Tang Prize funds be used to support the limited costs associated with hosting this meeting (Unions' representatives pay their own costs)

38. *Executive Salary Costs*

Half the costs of salaries for the Executive and Deputy Executive Directors. (see note 18) and the full costs for the Assistant Executive Director.

39. *Publications and Communication*

This includes the annual reports and on-line communication activities including a science for policy blog. In 2016 it is proposed that €24k Tang Prize funds be used for these activities.

40. *Informatics*

Costs for computers, video-conferencing equipment, web consultants, etc.

41. *Travel*

Travel costs have been assigned to relevant budget lines, when appropriate, although this is not always possible. This line mainly represents the travel of the Executive Director and other staff that is not related to specific projects. €15k of NSF-Geo funds are allocated to this travel line.

42. *Salaries for Communication and Outreach*

Salaries for the Head of Communications, IT Officer and web master.

43. *Staff Development and Training*

Includes provision for an annual staff retreat and individual training costs, for which some of the funds are recovered from the social charges on salaries.

44. *Depreciation on fixed assets*

Depreciation on capital investments in infrastructure and furnishing, for which the costs are written off over several years.

45. *Building maintenance.*

Includes building repairs and maintenance contracts, which were previously under Office expenses

46. *Office Expenses*

Costs for services, equipment rental, photocopying, office repairs, staff recruitment, postage, telephone etc.

47. *Audit Fees and Legal Advice*

Costs for the legal auditor, preparation of payslips and other legal advisory services.

48. *Bank Charges*

Estimate based on previous years.

49. *Salaries for Administrative Staff*

Salaries for administrative, human resources and accounts staff (8 persons) were previously grouped together under one heading. This represented a large number of staff with a mixture of project and service support functions that have now been separated out (notes 50 and 51)

50. *Project admin support*

This includes support for 3 Administrative Officers, who work largely on projects. One of these posts is partially supported from the NSF-Geo grant (€26k per annum).

51. *Finance, Human Resources and services*

Support for Head of Human Resources, accountant, finance administrative officer, payroll/social charges officer (80% time) and office services support.

52. *General Contingencies*

This includes a contingency to cover the possibility of exchange rate loss on the provision for arrears, which is hard to predict. It can also cover other unexpected expenditures.

53. *Provision for Retirement Indemnity*

A provision is made annually to transfer funds to the statutory retirement indemnity reserve.

**54. *Predicted Balance for 2016 to 2018***

The predicted balances for 2016-2018 are all slightly negative (€50k-€100k). This assumes that there will be no additional income. Over the period 2012-2015, ICSU has managed to attract significant donations for projects such as Rio+20 and Future Earth as well as grants from Sida and NSF. The intention is to continue to seek external funds for specific activities over the next few years. At the same time, the ICSU General Fund at



the end of 2013 stands at ~€1M and is largely adequate to cover the projected deficits in the case that no additional external funds are secured.

***Note on total salary costs***

The total estimated staff costs for 2016-2018 are €2.1-€2.2M). This includes a 3% increase overall salary increase per annum (although see also note 42). This is based on a core complement of 17 staff as follows:

*Executive:* Director, Deputy Director and Associate Director

*Science Officers:* 3 permanent

*Communication:* Head, Communications Officer, IT Officer (80%)

*Project Admin support:* 3 Administrative Officers

*HR, Finance, services:* Head of HR (80%), accountant (80%), finance admin/concierge, payroll (80%); office services

National Members Dues Calculated from GDP

Annex 3

Country	Average GDP 2010-12 (US\$ billion)	GDP as % of total	Lower Band Boundary (GDP%)	Band Number	Dues (€) 2015	Dues (€) 2016 (+3%)	Dues (€) 2017 (+3%)	Dues (€) 2018 (+3%)
United States	15578,9	23,92%	20,00%	10	490 307	505 016	520 166	535 771
China: CAST	7157,8	10,99%	10,00%	9(8)	200 515	229 605	236 493	243 588
Japan	5784,0	8,88%	4,50%	8	200 515	206 530	212 726	219 108
Germany	3457,2	5,31%	4,50%	8	200 515	206 530	212 726	219 108
France	2656,2	4,08%	3,00%	7(8)	200 515	137 763	141 896	146 153
United Kingdom	2412,7	3,70%	3,00%	7(8)	200 515	137 763	141 896	146 153
Brazil	2290,2	3,52%	3,00%	7(6)	55 729	137 763	141 896	146 153
Italy	2089,9	3,21%	3,00%	7	133 750	137 763	141 896	146 153
Russia	1817,9	2,79%	2,00%	6	55 729	57 401	59 123	60 897
India	1808,5	2,78%	2,00%	6	55 729	57 401	59 123	60 897
Canada	1738,0	2,67%	2,00%	6	55 729	57 401	59 123	60 897
Australia	1426,4	2,19%	2,00%	6(5)	39 010	57 401	59 123	60 897
Spain	1388,9	2,13%	2,00%	6	55 729	57 401	59 123	60 897
Mexico	1128,3	1,73%	1,00%	5	39 010	40 180	41 385	42 627
Korea, Republic of	1086,3	1,67%	1,00%	5	39 010	40 180	41 385	42 627
Indonesia	811,4	1,25%	1,00%	5(4)	14 533	40 180	41 385	42 627
Netherlands	794,3	1,22%	1,00%	5	39 010	40 180	41 385	42 627
Saudi Arabia	635,8	0,98%	0,50%	4	14 533	14 969	15 418	15 881
Switzerland	613,1	0,94%	0,50%	4	14 533	14 969	15 418	15 881
Sweden	507,6	0,78%	0,50%	4	14 533	14 969	15 418	15 881
Poland	491,8	0,76%	0,50%	4	14 533	14 969	15 418	15 881
Belgium	490,4	0,75%	0,50%	4	14 533	14 969	15 418	15 881
Iran	487,9	0,75%	0,50%	4	14 533	14 969	15 418	15 881
Norway	470,4	0,72%	0,50%	4	14 533	14 969	15 418	15 881
China: Taipei	455,5	0,70%	0,50%	4	14 533	14 969	15 418	15 881
Argentina	429,1	0,66%	0,50%	4	14 533	14 969	15 418	15 881
Austria	396,5	0,61%	0,50%	4	14 533	14 969	15 418	15 881
South Africa	383,3	0,59%	0,50%	4	14 533	14 969	15 418	15 881
Thailand	343,5	0,53%	0,50%	4(3)	5 573	14 969	15 418	15 881
Colombia	328,4	0,50%	0,50%	4(3)	5 573	14 969	15 418	15 881
Denmark	320,6	0,49%	0,15%	3(4)	14 533	5 740	5 912	6 089
Malaysia	280,4	0,43%	0,15%	3	5 573	5 740	5 912	6 089
Greece	278,0	0,43%	0,15%	3(4)	14 533	5 740	5 912	6 089
Singapore	257,9	0,40%	0,15%	3	5 573	5 740	5 912	6 089
Israel	249,1	0,38%	0,15%	3	5 573	5 740	5 912	6 089
Finland	249,1	0,38%	0,15%	3	5 573	5 740	5 912	6 089
Nigeria	247,6	0,38%	0,15%	3	5 573	5 740	5 912	6 089
Chile	245,5	0,38%	0,15%	3	5 573	5 740	5 912	6 089
Egypt	236,9	0,36%	0,15%	3	5 573	5 740	5 912	6 089
Portugal	226,6	0,35%	0,15%	3	5 573	5 740	5 912	6 089
Philippines	224,6	0,34%	0,15%	3	5 573	5 740	5 912	6 089
Ireland	215,6	0,33%	0,15%	3	5 573	5 740	5 912	6 089
Pakistan	205,6	0,32%	0,15%	3	5 573	5 740	5 912	6 089
Czech Republic	203,4	0,31%	0,15%	3	5 573	5 740	5 912	6 089
Peru	177,0	0,27%	0,15%	3	5 573	5 740	5 912	6 089
Iraq	176,2	0,27%	0,15%	3(2)	1 639	5 740	5 912	6 089
Romania	172,3	0,26%	0,15%	3	5 573	5 740	5 912	6 089
Ukraine	158,7	0,24%	0,15%	3	5 573	5 740	5 912	6 089
New Zealand	157,9	0,24%	0,15%	3	5 573	5 740	5 912	6 089
Hungary	130,9	0,20%	0,15%	3	5 573	5 740	5 912	6 089
Bangladesh	114,4	0,18%	0,15%	3	5 573	5 740	5 912	6 089
Angola	100,6	0,15%	0,15%	3(2)	1 639	5 740	5 912	6 089
Morocco	95,4	0,15%	0,05%	2(3)	5 573	1 688	1 739	1 791
Slovak Republic	91,8	0,14%	0,05%	2(3)	5 573	1 688	1 739	1 791
Azerbaijan	62,2	0,10%	0,05%	2	1 639	1 688	1 739	1 791
Luxembourg	56,5	0,09%	0,05%	2	1 639	1 688	1 739	1 791
Sri Lanka	56,0	0,09%	0,05%	2	1 639	1 688	1 739	1 791
Dominican Republic	55,4	0,09%	0,05%	2	1 639	1 688	1 739	1 791
Bulgaria	50,8	0,08%	0,05%	2	1 639	1 688	1 739	1 791

National Members Dues Calculated from GDP

Annex 3

Country	Average GDP 2010-12 (US\$ billion)	GDP as % of total	Lower Band Boundary (GDP%)	Band Number	Dues (€) 2015	Dues (€) 2016 (+3%)	Dues (€) 2017 (+3%)	Dues (€) 2018 (+3%)
Uruguay	45,1	0,07%	0,05%	2	1 639	1 688	1 739	1 791
Costa Rica	40,8	0,06%	0,05%	2	1 639	1 688	1 739	1 791
Lithuania	40,5	0,06%	0,05%	2	1 639	1 688	1 739	1 791
Serbia	39,7	0,06%	0,05%	2	1 639	1 688	1 739	1 791
Lebanon	39,2	0,06%	0,05%	2	1 639	1 688	1 739	1 791
Kenya	35,8	0,05%	0,05%	2	1 639	1 688	1 739	1 791
Panama	31,5	0,05%	0,00%	1	1 093	1 126	1 160	1 195
Latvia	27,0	0,04%	0,00%	1(2)	1 639	1 126	1 160	1 195
Tanzania	25,0	0,04%	0,00%	1	1 093	1 126	1 160	1 195
Cameroon	24,5	0,04%	0,00%	1	1 093	1 126	1 160	1 195
El Salvador	22,8	0,04%	0,00%	1	1 093	1 126	1 160	1 195
Estonia	21,3	0,03%	0,00%	1	1 093	1 126	1 160	1 195
Uganda	18,9	0,03%	0,00%	1	1 093	1 126	1 160	1 195
Nepal	18,0	0,03%	0,00%	1	1 093	1 126	1 160	1 195
Bosnia and Herzegovina: ANUBiH	17,4	0,03%	0,00%	1	1 093	1 126	1 160	1 195
Bosnia and Herzegovina: ANURS	17,4	0,03%	0,00%	1	1 093	1 126	1 160	1 195
Jamaica	14,2	0,02%	0,00%	1	1 093	1 126	1 160	1 195
Albania	12,4	0,02%	0,00%	1	1 093	1 126	1 160	1 195
Namibia	12,3	0,02%	0,00%	1	1 093	1 126	1 160	1 195
Mauritius	10,8	0,02%	0,00%	1	1 093	1 126	1 160	1 195
Macedonia	9,9	0,02%	0,00%	1	1 093	1 126	1 160	1 195
Armenia	9,8	0,01%	0,00%	1	1 093	1 126	1 160	1 195
Zimbabwe	8,7	0,01%	0,00%	1	1 093	1 126	1 160	1 195
Mongolia	8,4	0,01%	0,00%	1	1 093	1 126	1 160	1 195
Moldova	6,7	0,01%	0,00%	1	1 093	1 126	1 160	1 195
Malawi	5,1	0,01%	0,00%	1	1 093	1 126	1 160	1 195
Montenegro	4,3	0,01%	0,00%	1	1 093	1 126	1 160	1 195
Togo	3,6	0,01%	0,00%	1	1 093	1 126	1 160	1 195
Seychelles	1,0	0,00%	0,00%	1	1 093	1 126	1 160	1 195
Cuba	0,0	0,00%	0,00%	1	1 093	1 126	1 160	1 195
Monaco	0,0	0,00%	0,00%	1	1 093	1 126	1 160	1 195
South Pacific	0,0	0,00%	0,00%	1	1 093	1 126	1 160	1 195
<b>Total</b>	<b>65129,4</b>	<b>100,00%</b>			<b>2 437 656</b>	<b>2 518 555</b>	<b>2 594 115</b>	<b>2 671 944</b>

ICSU Budget

GDP Source

International Monetary Fund, World Economic Outlook Database, October 2013

<http://www.imf.org/external/pubs/ft/weo/2013/02/weodata/weoselgr.aspx>

Rows in green refer to increasing dues, while rows in red refer to decreasing dues.

Band		Dues Band (2015)	2016	2017	2018
10	10 votes	490 307	505 016	520 166	535 771
9	9 votes	222 917	229 605	236 493	243 588
8	8 votes	200 515	206 530	212 726	219 108
7	7 votes	133 750	137 763	141 896	146 153
6	6 votes	55 729	57 401	59 123	60 897
5	5 votes	39 010	40 180	41 385	42 627
4	4 votes	14 533	14 969	15 418	15 881
3	3 votes	5 573	5 740	5 912	6 089
2	2 votes	1 639	1 688	1 739	1 791
1	1 vote	1 093	1 126	1 160	1 195

## Unions' Dues 2015-2018 based on income from dues

Approved by  
31st General Assembly  
September 2014

Union	Dues Income Average 2011-2013	Dues Income as % of total	Lower Band Boundary	Band	Updated Dues in 2015	Updated Dues in 2016 (3%)	Updated Dues in 2017 (3%)	Updated Dues in 2018 (3%)
	€	%	€		€	€	€	€
<b>IAU</b>	<b>673 106</b>	14,3%		A	21 198	21 834	22 489	23 164
<b>IUPAC</b>	<b>533 496</b>	11,3%		A	21 198	21 834	22 489	23 164
IUPAP	383 919	8,1%		A	21 198	21 834	22 489	23 164
IUGG	364 854	7,7%	≥€330,000	A	21 198	21 834	22 489	23 164
IUGS	275 737	5,8%	<€330,000	B	10 600	10 918	11 246	11 583
IUFRO	267 263	5,7%	≥€240,000	B	10 600	10 918	11 246	11 583
IMU	228 903	4,9%	<€240,000	B -> C	10 600	3 602	3 710	3 821
URSI	226 493	4,8%		B -> C	10 600	3 602	3 710	3 821
IUBS	215 752	4,6%		B -> C	10 600	3 602	3 710	3 821
ISA	156 646	3,3%		C	3 497	3 602	3 710	3 821
IUCr	134 799	2,9%		C	3 497	3 602	3 710	3 821
INQUA	102 234	2,2%		C	3 497	3 602	3 710	3 821
IGU	99 688	2,1%		C	3 497	3 602	3 710	3 821
IUSS	98 921	2,1%		C	3 497	3 602	3 710	3 821
ISPRS	96 316	2,0%		C	3 497	3 602	3 710	3 821
IUTAM	86 501	1,8%		C	3 497	3 602	3 710	3 821
IUPS	79 236	1,7%		C	3 497	3 602	3 710	3 821
IUPHAR	72 116	1,5%		C	3 497	3 602	3 710	3 821
IUPsyS	64 887	1,4%		C	3 497	3 602	3 710	3 821
IUPAB	64 178	1,4%	≥€55,000	C	3 497	3 602	3 710	3 821
<b>IBRO</b>	<b>51 345</b>	1,1%	<€55,000	D	1 202	1 238	1 275	1 313
ICA	51 299	1,1%		D	1 202	1 238	1 275	1 313
<b>IUFoST</b>	<b>49 131</b>	1,0%		D	1 202	1 238	1 275	1 313
IUNS	46 428	1,0%		D	1 202	1 238	1 275	1 313
IUMS	39 273	0,8%		D	1 202	1 238	1 275	1 313
<b>IUTOX</b>	<b>37 093</b>	0,8%		D	1 202	1 238	1 275	1 313
<b>IUHPS</b>	<b>35 136</b>	0,7%		D	1 202	1 238	1 275	1 313
IUPESM	20 020	0,4%		D	1 202	1 238	1 275	1 313
IUMRS	19 850	0,4%		D	1 202	1 238	1 275	1 313
<b>IUIS**</b>				D	1 202	1 238	1 275	1 313
Total	4 716 601	100,0%		***	191 773	175 582	180 848	186 267

**Bold & Italic:** No update data of 2011-13, using 2007-09's data

\*\* No data on dues income from IUIS

band	updated dues	
A	21 198	5 votes
B	10 600	4 votes
C	3 497	3 votes
D	1 202	2 votes

**Procedural note on smoothing the transition for Members who change dues categories when dues are re-calculated (every 3 years)**

Every 3 years a small number of National Members are likely to change dues categories due to increases or decrease in average GDP over the previous triennium. This change may be either an increase or decrease and may be a short-term (3yr) or longer-term (>3yr) re-categorisation depending on the economic factors underlying the GDP change. In order to smooth this transition and lessen the effects of 'yo-yoing' between categories, it is proposed that all members who fall into a new category pay (or save) half of the expected difference relative to their previous category for the first 3 years. This will reduce the size of the increase or decrease in expected payments by 50% during this transition period. If the classification in the new category is confirmed after the 3 year period then the full dues rate applicable to that category will be enforced. If a member reverts back to its earlier category then the full dues rate for that category will be applied.