



**Global Young Academy**

The voice of young scientists around the world

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## “Natural Resources in a Finite World”

### Report on the 4<sup>th</sup> International Conference of Young Scientists & Annual General Meeting 2014 of the Global Young Academy, 21-25 May 2014 in Santiago de Chile



**Image 1: Left:** Time for conversations and exchange during a coffee break in the lobby of University of Chile. **Right:** Work in Progress – a working group meeting during the conference. Photos: Florian Wiencek / Global Young Academy

This year’s Annual General Meeting (21–25 May) took place in Santiago, Chile in the center of the Santiago Basin, nestled between the beautiful Andes and the Pacific Ocean. This was a perfect setting for our conference, which was focused on an issue of outstanding importance—*Natural Resources in a Finite World*. The University of Chile generously hosted the conference, with some sessions taking place at the Pontificia Universidad Católica de Chile and the NH Ciudad de Santiago.

This was the first Global Young Academy (GYA) meeting to be held in South America. As GYA Co-Chair Sameh Soror noted, this destination reflects the truly global nature of our academy.

The opening address of Co-Chair Rees Kassen reminded the participants that while some countries, like Chile, contain extensive reserves of natural resources and others do not, natural resources also refer to the human capital that a country holds. These are precisely the intellectual and cultural resources that the GYA draws upon in building its profile as a major global scientific adviser.



**Image 2:** Group Photo of the participants of the 4th International Conference of Young Scientists & Annual General Meeting 2014 of the Global Young Academy in front of the faculty of Physics and Engineering, University of Chile. Photo: Cristián Prado

It was clear from the start of the meeting that the efforts of the Executive Committee, the organizing teams in Chile and Germany and the program committee over the past year had paid off. The program was very well organised and there were some excellent presentations scheduled over the 5-day conference.

105 scientists and scholars attended the conference, including 78 members of the Global Young Academy from 34 countries, a group of Chilean Young Scientists and distinguished speakers and participants, such as Jorge Sequeira (United Nations Educational, Scientific and Cultural Organization, UNESCO), Angélica Bucio (Communications Officer of the International Council for Science, Regional Office for Latin America and Caribbean ICSU ROLAC), Juan Asenjo (Chilean Academy of Sciences), Howard Alper (Government of Canada’s Science, Technology and Innovation Council) and Jorge Allende (Inter-Academy Partnership). A meeting of National Young Academies preceded the GYA conference with representatives from around the world.



**Image 3:** Co-Chairs Rees Kassen and Sameh Soror and MD Heidi Wedel welcome Gonzalo Tornaría as new member of the GYA. Photo: Florian Wiencek / Global Young Academy

Forty-five new members from 28 countries were admitted to the GYA on Day 1 of the conference, increasing GYA membership to full capacity (200 members across 58 countries) for the first time. Rees Kassen warned new members that unlike other scientific conferences, members were expected to “roll up their sleeves and get down to work as soon as possible”, and that “sleep was for the plane ride home”. Although this probably left many new members in a state of stunned silence, the meet-and-greet, and ‘speed dating’ exercise helped to ease the initial adrenaline rush and to ground all present for the work ahead. New members were able to meet each other for the



**Image 4:** Jorge Sequeira (UNESCO Office of Education for Latin America and the Caribbean, left) and Howard Alper (Science, Technology and Innovation Council, Canada, right) delivering their keynote addresses at University of Chile. Photos: Florian Wiencek / Global Young Academy

first time, and more seasoned members were re-acquainted with colleagues from earlier meetings.

The official opening ceremony on Day 2 of the conference, including welcome addresses by Sergio Lavandero (Vice President of Research and Development, Universidad de Chile) and María Elena Boisier (President of the National Commission for Scientific and Technological Research (CONICYT), Government of Chile), emphasised the role of science in leading economic and societal development. It also underscored the need for young scientists to take on leadership roles in building societies that use natural resources in a responsible way.

The President of the Chilean Academy of Sciences and representative for IAP, Juan Asenjo, highlighted the importance of the IAP and GYA continuing to work together to address global issues. Examples included developing joint statements on issues of global importance, mutual nominations for participation in conferences (e.g. Summer Davos) and horizon scanning exercises.

The Director of the UNESCO Office of Education for Latin America and the Caribbean, Jorge Sequeira, emphasised that people—and young people in particular—are the world’s most precious resource. He underscored scientists’ responsibility to develop knowledge that is beneficial to society; stressing that no one community can address all the issues alone.

The Chair for Government of Canada’s Science, Technology and Innovation Council, Howard Alper, described a series of bold human-resource initiatives introduced in Canada, including PhD scholarships, post-doctoral funding, and research chairs that are open to applicants from anywhere in the world. He also gave examples on how a well thought-out policy on intellectual property can facilitate knowledge transfer from academia to industry, stressing the importance of removing formal and legal barriers, and concentrating on long-term benefits, rather than short-term economic returns. In his closing remarks, Prof Alper cautioned that, in order to be effective, an organization should concentrate on two to three initiatives for maximum impact.

The panel discussion on *Natural Resources in a Finite World* brought together Jorge Sequeira, Howard Alper, and Angelica Bucio, along with three GYA members—James Tickner (Australia), Olanike Adeyemo (Nigeria) and Antonio Andreoni (UK). The panel expressed concerns about the limited progress that has been made in addressing global problems, despite the publicity that such efforts attract, and also about the gap between what



**Image 5:** Panel Discussion on "Natural Resources in a Finite World" moderated by Laura Petes (GYA). Photo: Florian Wiencek / Global Young Academy

the public wants and what science can deliver. Participants also stressed the importance of indigenous knowledge in stewardship of natural resources, as well as the continued need to articulate the scientific method to a wide range of audiences.

This highly informative morning session at the University of Chile was followed by an equally informative afternoon at Pontificia Universidad Católica de Chile. After a warm welcome by Ignacio Sanchez, the Rector of Pontificia Universidad Católica de Chile, in the impressive Aula Magna of his institution,

the keynote speech was delivered by Angélica Bucio on ICSU, an international non-governmental organisation dedicated to the advancement of science, and Future Earth, a new global platform for international scientific collaboration on global sustainability. Her presentation focused on accelerating our transformations to a sustainable world. Angélica Bucio highlighted the overlapping objectives between the GYA and ICSU, including, GYA's focus on science education—one of the first working groups of our Academy—and ICSU's promotion of the 'universality of science', which seeks to ensure that science is trusted and valued by societies around the world by developing the global scientific community.

Following the keynote, the parallel science sessions provided GYA members the opportunity to present research activities aligned with the theme of the conference. These sessions spanned science and engineering, politics and humanities, the biomedical sciences and sustainability. After coffee in the beautiful gardens of Casa Central, which were created by graduates of the University's own School of Architecture, GYA members once again met in their respective working groups.

In the evening, members enjoyed a reception for the GYA and leading representatives of science in Chile at the hilltop Residence of the German Ambassador to Chile, where the ambassador himself, Mr Hans-Henning Blomeyer-Bartenstein, personally greeted each new arrival to his residence. The view over Santiago was magnificent!



**Image 6.:** Left: Angélica Bucio (ICSU ROLAC) delivering her keynote at Pontificia Universidad Católica de Chile. Right: Audience in the magnificent Aula Magna at Pontificia Universidad Católica de Chile. Photos: Florian Wiencek / Global Young Academy.



**Image 7:** Plenary panel "Honest Brokers. GYA as Global Scientific Adviser" (left) and an impression from the outbreak sessions following the panel (right).

The following day focused on science education and engagement. The coordinator of the IAP global program on science education, Jorge Allende, summed up the importance of an early start in science education, "We must get to their neurons before the arrival of their hormones." Jorge Allende proposed a threefold strategy to communicate science to society more effectively. First, we must devise better ways and means of communication with non-specialists, putting aside scientific jargon. Second, there is much to commend Inquiry-Based Science Education (IBSE), which trains pupils to answer questions using laboratory-based experiments within classroom. Teachers of science should be encouraged, trained, and equipped with the various techniques of IBSE. Third, well-trained science journalists are needed to communicate and promote scientific discoveries and concerns to society.

The following plenary panel "Honest Brokers: GYA as a Global Scientific Adviser" argued that for the GYA to have a significant impact on the global community, our strategic approach should be based on informing choices and supplying options to the global community. The following operational actions were recommended: we need to understand society by becoming part of it and bridge the gap between society and the scientific community; we should contribute to improving the quality of science education and educational systems and support the interest of young learners, especially girls, in science.



**Image 8:** The newly elected GYA Executive Committee on stage together with the newly elected Co-Chairs Sameh Soror and Eva Alisic after the voting process.

The third and fourth days of the conference were devoted to internal business, including the election of new Co-Chairs and Executive Committee members. Elected to the Co-Chair positions were Eva Alisic (Australia), alongside the re-elected Co-Chair Sameh Soror (Egypt). Eva Alisic highlighted that “With our global membership, we provide a unique view on issues of science and public policy in an international context.” Elected to the Executive Committee were: Abdullah Shams bin Tariq (Bangladesh), Fridah Kanana (Kenya), Ghada Bassioni (Egypt), Gijs Wuite (Netherlands), Laura Petes (USA), Mitsunobu Kano (Japan), Rob Jenkins (UK), Wilfred van der Wiel (Netherlands), and Yusuf Baran (Turkey). Moreover the GYA debated and voted on an amended GYA constitution. On the last day Mathias Kläui facilitated a brainstorming discussion on the five years ahead. Discussion topics included institutional issues and funding, relations with National Young Academies, visibility of the GYA, scientific priorities, and brand building. Summaries of each topic were presented to the membership and the Executive Committee to facilitate planning.



**Image 9:** Thank you to the local organizers and to the conference staff!

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