

TECHNICAL REPORT

**Project Title: 2018's IUGG Centennial Celebration Activities in
China, 20-27 August 2018, Beijing & Lanzhou, China**

Amount (\$): \$10,000 USD

Project description

IUGG was created in 1919 and dedicated to advancing, promoting, and communicating knowledge of the Earth system, its space environment, and the dynamical processes causing change. Since its foundation, the IUGG and its international association and committee have played a key role in the last century in the continuing evolution of hydrologic, atmospheric, cryosphere science, and so on. The Union Commission on Climatic and Environmental Change (CCEC) was established by the Executive Committee of IUGG in 2012 in order to promote the advancement of scientific understanding of climatic and environmental change, to boost research in reducing uncertainties in climate and environmental models, to define criteria for collaborative trans-disciplinary research on climate and environmental change, to fulfil the objectives of IUGG and its associations, to provide an all-Union perspective on climatic and environmental change, and to make available the knowledge and insights developed through scientific research to the benefit of society and planet Earth, including consideration of the science of global change, related vulnerability and impacts, and potential responses. Chinese National Committee for International Union of Geodesy and Geophysics (CNC-IUGG) was founded in 1979. CCEC and CNC-IUGG have together fostered many Chinese geoscience scientists and also played a very important role in the geoscience community according to address the most pressing global change and sustainability issues.

The year 2019 was the 100th anniversary of the establishment of IUGG. In order to promote IUGG activities in Southeast Asia and China, especially to Chinese tens of thousands Earth scientists and students, which is probably the large body of Earth communities in the world and encourage more participation of Chinese scientists in IUGG activities, including serving in various leadership roles in IUGG scientific committees, contributing to IUGG publications, and promoting and participating in scientific exchange activities and earning IUGG honours, the year of centennial celebration has presented an important opportunity to establish stronger relationships with Earth science professional organizations and societies in Southeast

Asia and China, especially play critical and positive roles in promoting good scientific practice in China.

2018's IUGG Centennial Celebration Activities in China has presented a high level International Earth Sciences Summit, entitled Earth Sciences and Sustainable Development co-organized by CCEC, IAMAS, CNC-IUGG and other Chinese counterpart, features lectures by prominent IUGG fellows from inside and outside China on cutting edge Earth science topics of interest to China and the world. The Summit was a one-day event, held at August 21, 2018, conjunction with the biennial Chinese Congress on Geodesy and Geophysics (CCGG), which the latter was held on 22-24 August in Lanzhou, China, inviting about 50 geoscience scientists and 100 students from around the world. The Summit has provided an opportunity for geoscience scientists especially for Chinese scientists and students to learn career skills and to build a network amongst their peers. The Summit has been hosted by the CNC-IUGG as planned before.

Summary of the Summit

More than 20 international scientists and 100 delegates from China and around the world (e.g., Iran, Nigeria, Pakistan) attended this summit, including Alik Ismail-Zadeh, Secretary General of IUGG and Secretary General of International Science Council (ISC); Yuntai Chen, Academician of CAS, IUGG Fellow, and former Member of the IUGG Bureau (2003-2011); Guoxiong Wu, Academician of CAS and IUGG Fellow; Keith Alverson, Secretary-Treasurer of the IUGG Union Commission on Climatic and Environmental Change (CCEC); Teruyuki Nakajima, Secretary General of IAMAS; Deliang Chen, Foreign Member of CAS and former Executive Director of ICSU (2008-2011); Yuanxi Yang, President of the Chinese National Committee for IUGG (CNC-IUGG) and Academician of CAS; Jun Xia, Vice President of the CNC-IUGG and the member of CAS; Xiaofei Chen, Vice President of the CNC-IUGG, IUGG Fellow, and Academician of CAS; Jianping Li, Secretary General of the CNC-IUGG, IUGG Fellow, and Vice Chair of CCEC; and other distinguished participants.

Representatives of CAST, CAS, NSFC and CNC-IUGG welcomed the participants at the Opening Ceremony and delivered effusive speeches. The summit consisted of two parts: keynote presentations and panel discussion. Presentations at the summit included Developing Cryosphere Science under Climate Change (by Dahe Qin, China), the Past Achievements and Future Prospects of the Atmospheric Sciences (by Terry Nakajima, Japan), Sustainable Water Management in a Changing Climate: Challenges in the Application of Hydro-climatological Forecasting for Decision Making (by Soroosh Sorooshian, USA); Tibetan-Iranian Plateau and the Asian Monsoon (by Guoxiong Wu, China); Resilience: The science of adaptation to climate change (by Keith Alverson, Japan, UN Environment Programme); Proving Ground for Global Sustainability (by Deliang Chen, Sweden); Applications of Computational Seismology on Hazard

Mitigation (by Xiaofei Chen, China), and Centennial of International Cooperation in Earth & Space Sciences (by Alik Ismail-Zadeh, Germany/Russia).

In the panel discussion, eight panelists presented their views on Earth Sciences and Sustainable Development, new challenges and opportunities in the future, particularly about interdisciplinary and transdisciplinary research related to U.N. Sustainable Development Goals, about younger scientists and geoscience research in developing countries. All participants agreed that this was a successful Earth Sciences Summit dedicated to the IUGG Centennial celebration activities. This summit not only promoted high-level academic forums of Earth Sciences and presented new prospects for sustainable development strategies, but also provided a very good platform for advanced research strategic consultation, education and talent cultivation in the Earth Sciences. Through this summit, scientists and managers for sustainable development together reviewed IUGG contributions globally and regionally such as in China, the world's biggest developing country, summarized the advantages of Earth Sciences and their important role in serving society in a sustainable way, and summed up major challenges for the future.

From 22 to 24 August, CNC-IUGG organized the Third Congress of China Geodesy and Geophysics at Lanzhou University, China. More than 1,000 scientists and students attended the event. At the Opening Ceremony, Chun-Hua Yan, President of the Lanzhou University, Yuanxi Yang, President of CNC-IUGG, and Alik Ismail-Zadeh, IUGG Secretary General, addressed the participants in the Ceremonial Hall of the University. The following keynote speeches were delivered at the congress: Atmospheric Heating Source over the Tibetan Plateau and its Climate Impact by Guoxiong Wu; Paradigm Shift in Disaster Science – Transdisciplinary System Analysis with Action-Oriented Research by Alik Ismail-Zadeh; Water Resources and Water Security by Jun Xia.

