



Research

Workshop on Interactions of Multilayer Circles in the Qinghai-Tibet Plateau and Environmental Effects

The seventh workshop on the strategic priority research programme Interactions of Multilayer Circles in the Qinghai-Tibet Plateau and Its Resource Environmental Effects was held in Beijing on 28 March 2013. Dr Fan Weiming, Director of the Bureau of Science and Technology for Resources and the Environment of the Chinese Academy of Sciences (CAS), presided over the workshop. Dr Yao Tandong and Wu Fuyuan, Chief Scientists of the programme, and 19 experts in charge of projects participated in the workshop along with other team members. Dr Chai Yucheng, Director of the Department of Earth Sciences, National Natural Sciences Foundation of China (NSFC); Dr Liu Guohua from the Research Center for Eco-Environmental Sciences, CAS; and Prof. Xue Chunji from China University of Geosciences in Beijing were invited to the workshop.

After listening to reports from project managers on scientific issues and the study protocol and approaches the chief scientists pointed out that the programme is designed from the top level, and that the projects below must thoroughly understand the design. They noted that discussion and communication among projects must be strengthened to clarify common key problems, and that those key scientific problems must be addressed using diverse disciplines and state-of-the-art technology and methods.

Initiation Workshop on Koshi Basin Programme

Through the Chinese Committee on ICIMOD (CNICIMOD), a Koshi Basin Programme initiation workshop on water management and hazard risk reduction related policy and institutional analysis in China for Koshi River basin management was held at the Institute of Mountain Hazards and Environment (IMHE), CAS, 27-28 May 2013 with support from the Australian Agency for International Development (AusAID). About 20 participants attended the workshop.

Dr Deng Wei, Director of IMHE, met with a delegation from ICIMOD and Tribhuvan University of Nepal before the workshop to exchange ideas about the implementation of the programme and further collaboration with ICIMOD and Tribhuvan University. In his welcome address at the opening ceremony, Dr Xiong Donghong, Director of the Science and Technology Department of IMHE gave a brief

Initiation workshop on the Koshi Basin Programme



introduction to the work of IMHE. Dr Arun Shrestha and Dr Shahriar Wahid from ICIMOD introduced the workshop objectives and the approach, progress, and partnership arrangements for the KBP. Prof. Narendra Khanal from Tribhuvan University and Dr Chen Ningsheng and Fang Yiping from IMHE reported on the foundation, approach, and work plan of research on Koshi water hazards and the socioeconomic and environmental part in China and Nepal. Participants discussed and reached a consensus on the objective, approach, and action plan of the programme, thus laying a good foundation for the smooth implementation of the programme.

The Koshi River originates in Tibet Autonomous Region of China and flows through China, Nepal, and India. It is an extremely important South Asian transboundary river. In 2009, CNICIMOD applied a CAS External Cooperation Programme on Geo-Surface Processes and Regional Adaptation to Climate Change in Himalaya Region. This project was funded by the Bureau of International Cooperation, CAS, and implemented by IMHE; the Institute of Geographic Sciences and Natural Resource Research, CAS; Cold and Arid Regions Environmental and Engineering Research Institute, CAS; Chengdu Institute of Biology, CAS; ICIMOD; and the Central Department of Geography of Tribhuvan University, Nepal. The achievements have been made after nearly three years of concerted efforts, which have created a strong foundation for future research and helped form a sound international cooperation group, which is key for the Koshi Basin Programme.

IMHE participated in the organization of the Koshi Basin Programme, which is being undertaken to improve integrated river basin management by providing policy-relevant knowledge on integrated water management and the potential impacts from climate and environmental change. A further objective is to improve understanding on adaptation and livelihood strategies in the context of those changes. The first phase of the programme is from 2012 to 2016.

Third Pole Environment (TPE) Joint Investigation in Nepal

Scientists from China and Nepal carried out a sixth field investigation on glaciers, runoff, and climate in the Langtang basin in Nepal sponsored by the Third



Participants in the Third Pole Environment joint field investigation

Pole Environment (TPE) international plan. Scientists involved in the field investigation, held from 27 April to 16 May 2013, included Associate Researcher Yu Wusheng, Gong Ping and Dr Li Shenghai from the Institute of Tibetan Plateau Research (ITP), CAS; Prof. Lochan P Devkota from Tribhuvan University, Nepal; Prof. Gurung Sanjaya from Kathmandu University, Nepal; and Dr Dorothea Stumm from ICIMOD.

The investigation successfully completed the following activities:

- Yala Glacier mass balance observation;
- Yala Glacier surface absolute elevation and ice edge position differential GPS measurement;
- Maintenance of passive sampler for persistent organic pollutants (POPs);
- Maintenance of automatic meteorological stations at Kyanjin Gompa (3,900 m) and Tarahara (119 m); and
- Downloading of meteorological data.

In addition, rainfall and river water samples were collected from May 2012 to April 2013 from fixed sites in Kyanjin Gompa, Langtang Valley, and Tarahara. For monitoring water stable isotopes in the basin, persistence pollutants and spatial change characteristics of the soil corresponding normal alkanes, water, soil, and vegetation samples were collected.

The Third Pole Environment plan, especially the research activities in the Langtang basin of Nepal, provides an opportunity to improve understanding of atmospheric circulation and water vapour transport processes and the transmission path of persistent pollutants both on south and north slope of Himalayan mountains.

Zhangmu Landslide Exploration Project Passes Acceptance Inspection

The Zhangmu Landslide Exploration Project, undertaken by the Institute of Mountain Hazard and Environment (IMHE), CAS, has passed an acceptance inspection in Beijing at a meeting hosted by the Bureau of Science and Technology for Development on 2 June 2013. Dr Wei Fangqiang from IMHE reported on the major work, exploration and evaluation results, integrated prevention scheme, and investment estimation of the project. The project was highly praised by experts from the Ministry of Land and Resources, Land and Resources Department of Tibet Autonomous Region, and related departments. The project is considered an important foundation for landslide prevention schemes and innovative engineering design.

Wang Jun, Director of Land and Resources Department of Tibet Autonomous Region, expressed his thanks to CAS for its contribution to landslide prevention work in Zhangmu township and expressed the aspiration to carry out research on other potential geological disasters. Feng Renguo, Vice Director of the Bureau of Science and Technology for Development, CAS, expressed thanks to the expert panel for their serious review and valuable opinions and suggestions, the relevant units in Tibet for their strong support of the project's implementation, and to the working team for their hard work.

Workshop on Technology Research and Demonstration of Fragile Ecological Restoration in the Tibetan Plateau

A workshop on the latest progress in a national key technology support programme on Technology Research and Demonstration of Fragile Ecological Restoration in the Tibetan Plateau was held on 23 June 2013 in Beijing. More than 20 participants took part in the workshop, including representatives from the Science and Technology Department of Tibet Autonomous Region and the Institute of Geographic Sciences and Natural Resources Research (IGSNRR), CAS.

Prof. Cheng Shengkui from IGSNRR presided over the workshop. Prof. Chen Yuansheng, Fang Jiangping and Associate Prof. Wang Zhaofeng introduced a working plan and progress on the projects of Technology Research and Demonstration of Typical Degraded Ecosystem Restoration in the Tibetan Plateau; Partition of Fragile Ecological Environment and Monitoring and Evaluation Research on Typical Fragile Ecosystem in the Tibetan Plateau; and Impact from Typical Fragile Ecological Environment on Livelihood in the Tibetan Plateau.

Participating experts discussed the reports and put forward concrete suggestions. They pointed out that, as a support programme, it should highlight the ability to solve practical problems to give technical specifications and guidance from an enforceable angle. Under limited funding, research works should be focused on key issues. After listening to the project reports and expert advice, Sun Yuming, Deputy Director General of the Science and Technology Department of Tibet Autonomous Region, appreciated the guidance and support from all experts for the implementation of the programme and other Tibetan science and technological works. He expressed that the department will fully support this research work and will communicate problems and suggestions to the relevant authorities in time. After the workshop, the work group discussed the experts' opinions and suggestions and further improved the action plan, which laid a sound foundation for carrying out the programme smoothly.

Zhangmu Landslide Exploration Project passes acceptance inspection



Seminar on Assessment Report of Ecological Environment Change in the Tibetan Plateau

On instruction from President Bai Chunli and Vice President Ding Zhongli of Chinese Academy of Sciences (CAS) to promote the construction of a regional innovation cluster in Tibet, a seminar on the assessment of ecological environment change in the Tibetan Plateau was held in Beijing on 27 July 2013. The seminar was attended by CAS Members Sun Honglie and Zheng Du; Yao Tandong, Chief Scientist of the Cluster; and Feng Renguo, Director of the Cluster Office. They had a discussion on the assessment report with participants from the Bureau of Science and Technology for Development, the Institute of Tibetan Plateau Research (ITPR), the Institute of Mountain Hazards and Environment (IMHE), the Institute of Geographic Sciences and Natural Resources Research (IGSNRR), the Cold and Arid Regions Environmental and Engineering Research Institute (CAREERI), the Institute of Remote Sensing and Digital Earth (RADI), and the China Tibetology Research Centre.

Following the presentation on preliminary schemes of the assessment report made by Professor Xu Baiqing, an expert panel put forward comments and suggestions that pointed out the need for the assessment report to objectively evaluate the ecological environment of Tibet in the past, the present situation, and possible future trends; promote the development of the report on the basis of scientific evaluation; systematically summarize the information in order to put forward a report that is helpful for improving local government work; study the influence of the natural changes and human activities on the ecological environment respectively, particularly select typical case to study; study the risk transformation and long-term and short-term effects of ecological environment change to present policy advice for local sustainable development and to combine social-economic development with regional environmental change to analyse the relationship between them at different times.

Yao Tandong expressed his thanks to expert panel for their advice and pointed out that the programme Construction of Monitoring System and Assessment of Ecological Environment Change in Tibetan Plateau is the construction of one of the three regional innovation clusters in Tibet set up by President Bai

Chunli of CAS and Padma Choling, Chairman of Tibet Autonomous Region. The programme aims to address not only scientific problems but also political problems. In addition to scientists from CAS, other scientists should also become actively involved in the implementation of the programme to evaluate ecological environment problems of Tibet objectively and fairly, and to provide a series reports to support economic and social development and improve the living standards of the people living in the Tibet Autonomous Region.

International Cooperation Research on Peatlands in the Hindu Kush Himalayan Region

A research project on the assessment of greenhouse gas (GHG) emissions from peatland ecosystems of the Hindu Kush Himalayan region has been recently launched by ICIMOD. Two peatlands in Nepal were selected as intensive field study sites: one is Bishazari Lake (286 masl) located in the buffer zone of Chitwan National Park, and the other is Dhaap Lake (2089 masl) located in Shivapuri-Nagarjun National Park. The Zoige Peatlands – the largest alpine peatlands in the world – was selected to represent peatlands in the eastern part of the Hindu Kush Himalayan region and as a reference site for this project.

To conduct this project, a research team was formed by ICIMOD staff, students from Tribhuvan University, staff in national parks, and some local people. Dr Zhu Dan from the Chengdu Institute of Biology (CIB), CAS, and currently an Ecosystem Analyst at ICIMOD supported by the Chinese Academy of Sciences-ICIMOD Young Scholar Programme, is the team leader. The objective of this project is to assess

Measurements being taken for international cooperation research on peatlands in the Hindu Kush Himalayan region



the GHG emissions in both spatial and temporal scales and to study the key biotic and abiotic factors impacting GHG emission from peatlands.

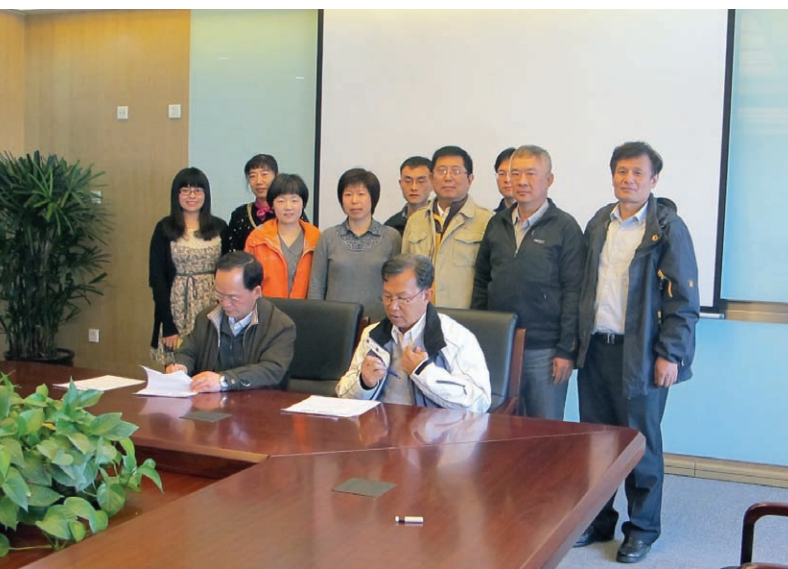
This project, supported jointly by the National Natural Science Foundation of China and ICIMOD's Innovation Fund, is the first to assess GHG emissions from the southern slopes of the Himalayas. It is operated under the supervision of Prof. Wu Ning from CIB who is currently the Ecosystem Services Thematic Area Leader at ICIMOD.

Cooperation

MoU Signed between ITP and Myanmar Geosciences Society

A Memorandum of Understanding (MoU) was signed in April 2013 between the Institute of Tibetan Plateau Research (ITPR) and Myanmar Geosciences Society (MGS). The agreement will strengthen cooperation between the two institutions in areas like the joint establishment of field GPS stations and automatic weather stations to improve understanding of the tectonic activities and dominant climatic and environmental patterns in Myanmar as well as to enhance collaboration in the development of young scientists. The MoU is conducive to further understanding climate and the environment in the Third Pole region. It will also allow for the study of the tectonic plates in and around the Tibetan Plateau, thus contributing to the holistic understanding of the Tibetan Plateau uplift history.

MoU signed between ITP and Myanmar Geosciences Society



Training Course on Wild Plant Germplasm Resource Collection Technology in Yunnan Nature Reserves

The Bureau of Personnel, CAS, and the Forestry Department of Yunnan Province jointly organized the Fifth Training Course on Wild Plant Germplasm Resource Collection Technology in Yunnan Nature Reserves. This training, hosted by the China Germplasm Bank of Wild Species of KIB, included basic theory at KIB and field practice in the Jiaozi Snow Mountain National Reserve. Participants from 22 national and provincial nature reserves and related domestic universities and institutions attended the course. Prof. Li Dezhu, Director of KIB; Zhang Jie, Bureau of Personnel, CAS; Tian Yongsheng, Bureau of Science and Technology for Development, CAS; and Zhao Xiaodong, Forestry Department of Yunnan Province delivered speeches at the training course. After the training, participants had a fundamental grasp of technologies used for wild plant germplasm resource collection and received a certificate of completion from KIB and the Forestry Department of Yunnan Province.

Since 2007, KIB and the Forestry Department of Yunnan Province has held this training course five times and has trained over 140 personnel. The fifth training course received financial support from the first continuing education project of CAS.

Training Course on Wild Plant Germplasm Resource Collection Technology in Yunnan Nature Reserves held in Yu



Academic Activities

Mekong Environmental Symposium in Vietnam

The Mekong Environmental Symposium, held in Ho Chi Minh City, Vietnam 5–7 March 2013, was the first event organized by the German Aerospace Center (DLR) and WISDOM Project, Ministry of Science and Technology of Vietnam. The event, co-organized by the Southern Institute of Water Resources Research of Vietnam, Vietnam Academy of Science and Technology, National Natural Science Foundation of China, and the Institute of Geographic Sciences and Natural Resources Research (IGSNRR), CAS, aimed to serve as an international platform for governmental decision makers, scientists, and other organizations active in the Mekong region. The symposium was attended by over 400 prominent experts, professors, laboratory principals, project leaders, and representatives of governments from Cambodia, China, Germany, Laos, Myanmar, Thailand, Vietnam, and the USA.

The ten key topics for the symposium included hydropower development and impacts on the economy and the river ecology; Mekong basin forest dynamics and REDD+; Mekong basin land use (non-forest) dynamics; Mekong basin hydrology and hydrography; hazards and disaster risk reduction in the Mekong basin; Mekong basin aquatic ecology, biodiversity, and water quality protection; Tonle Sap Lake: ecology, biodiversity and rural livelihoods; climate change related challenges in the Mekong delta; impacts of urbanization and industrialization on agriculture and water resources; and collaboration platforms in basin management:

information systems and spatial infrastructures, capacity building, education and outreach.

During a keynote speech in the opening ceremony, Prof. Shen Lei, from IGSNRR, highlighted a four-year comprehensive survey and research results undertaken by IGSNRR in the Lancang River of China covering issues like water, land and biological resources, ecosystems, natural heritage, habitat environment and disasters, and the progress of information systems on resources and environment. He further noted some key areas for potential international cooperation opportunities.

The Mekong River is the world's twelfth longest river. Known as the Lancang River in China, it originates in Qinghai Province and runs through Yunnan Province of China, after which it flows through Myanmar, Laos, Thailand, Cambodia and Vietnam. The Mekong River basin has raised great attention around the world over the last 30 years.

The Chinese delegation consisting of 30 researchers was financially supported by the National Natural Science Foundation of China, projects under Ministry of Science and Technology of China, and IGSNRR.

Fourth Third Pole Environment (TPE) Workshop

The fourth Third Pole Environment (TPE) Workshop was held at the Wadia Institute of Himalayan Geology (WIHG) in Dehradun, India 1–3 April 2013. The workshop attracted more than 50 world-renowned scientists from 14 countries, as well as officials from international organizations and governments.

Mekong Environmental Symposium in Vietnam



Fourth Third Pole Environment (TPE) Workshop in India



President of Iceland Ólafur Ragnar Grímsson was the chief guest at the inaugural session of the workshop. President Grímsson lauded the work of scientists from the Third Pole region and beyond and said it is "a great honour for Iceland to be a part of this evolving Himalayan cooperation". TPE co-chairs Profs. Yao Tandong and Lonnie Thompson introduced the latest progress of the TPE programme and called for further cooperation among scientists. S Jaipal Reddy, Minister of Science and Technology and Earth Sciences of the Government of India; Ram Boojh, UNESCO representative; and Anil K Gupta, Director of WIHG also spoke at the event, stressing the importance to further promote TPE research to confront the challenge of global climate change.

Scientific presentations and group and plenary discussions were held during the following two days. Twenty-nine scientists from different academic fields presented their latest research results in six sessions, including on the human-nature relationship in the Third Pole region, climate changes in the past and at present in polar region on earth, and regional efforts in TPE study, ecosystem and geology, as well as the TPE Mass Balance Working Group report and the TPE Precipitation Working Group report. During plenary discussions, it was agreed that the next TPE event would be an open conference instead of a workshop, which will allow for broader involvement of scientists and policy makers.

Third Pole Environment Session at the European Geosciences Union General Assembly

During the 2013 General Assembly of the European Geosciences Union (EGU), the Third Pole Environment (TPE) programme hosted a themed session on 11 April 2013 on the Observation and Modelling of Hydrometeorological Processes. This is the third time the TPE has hosted such a session at the EGU general assembly.

Revolving around the theme of 'Observation and Modelling of Hydrometeorological Processes in High Elevation Areas', the session featured 12 oral presentations by scientists from China, France, Italy, Germany, the Netherlands, and the USA in addition to the presentation of 15 posters on recent research achievements on land surface processes and environmental changes in the Third Pole region.

This year's session was jointly organized by ITP, CAS Profs Ma Yaoming and Zhang Fan; Prof. Bob Su of University of Twente, Netherlands; Prof. Antonello Provenzale of Institute of Atmospheric Sciences and Climate, Italy; Dr Hans-Werner Jacobi of Laboratory of Glaciology and Environmental Geophysics, France; and Dr Peter van Oevelen of GEWEX. The TPE session was open to the over 10,000 EGU participants, which allowed for intensive and extensive academic exchanges on hydrological and environmental research of the Third Pole region.

New Project Launches on Ecosystem-Based Adaptation in Developing Countries

A project on Enhancing Capacity, Knowledge and Technology Support to Build Climate Resilience of Vulnerable Developing Countries was officially launched on 22 April 2013 in Beijing, China.

The project seeks to build climate resilience using the ecosystem-based approach in three pilot countries – Mauritania (desert ecosystems), Nepal (mountain ecosystems) and the Seychelles (coastal ecosystems) – by mobilizing knowledge, transferring appropriate adaptation technologies, sharing knowledge, and increasing the institutional capacity across Africa and the Asia-Pacific.

The project is funded through the Global Environment Facility – Special Climate Change Fund (GEF-SCCF) in collaboration with the National Development and Reform Commission of China (NDRC), the United Nations Environment Programme (UNEP), and the Chinese Academy of Sciences (CAS). The launch was attended by dignitaries from GEF, NDRC, UNEP, CAS, UN Resident Coordinator Office, United Nations Development Programme (UNDP), and China's Ministry of Finance as well as regional representatives from the African Climate Change Policy Centre (ACPC) and the Asia-Pacific Adaptation Network and senior government representatives from Mauritania, Nepal, and Seychelles.

The workshop was opened with an introduction to the project by Dr Liu Jian, Director of UNEP-International Ecosystem Management Partnership (UNEP-IEMP). In his opening remarks, Su Wei, Director General of NDRC, noted that climate change is one of the most pressing challenges facing humanity in the 21st

century. He called for joint efforts by the international community to mainstream climate change actions in the overall framework of sustainable development, and said he envisages that this project will become a flagship in south-south cooperation on climate change. His comments were further reiterated by Liang Ziqian, Deputy Director General of the Department of International Cooperation, MOF, who noted China's willingness to share their lessons and experiences with other developing countries and the international community within the framework of south-south cooperation. Renata Lok-Desallien, UN China Resident Coordinator, stressed the need for effective action beyond national borders including both regional and international action. Bonizella Biagini, Head of Climate Change Adaptation Strategy and Operations of the GEF, commended the project for its innovative and integrated approach to dealing with adaptation and the partnership that China has developed in addressing climate change issues. Ermira Fida, Head of GEF Adaptation Portfolio of UNEP, said that while this project complements the big picture of the UNEP's Ecosystem-Based Adaptation Flagship Programme, it is the first GEF adaptation project that follows the newly developed GEF guidelines for ecosystem-based adaptation projects. The project is expected to deliver tools, methods, and platforms for use by other developing countries as they advance their national adaptation planning.

The first day of the workshop focused on the human dimension of climate change, including the need for capacity building, planning, and the implementation of ecosystem-based adaptation approaches. National and regional activities, including an implementation plan for each pilot country, were discussed the second day. The final day of the workshop concluded with a wrap-up of key findings and recommendations from the deliberations.



New GEF-SCCF project on launches ecosystem-based adaptation in developing countries

The launch was co-organized by UNEP-IEMP and the Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences (IGSNRR, CAS).

Regional Workshop for Awareness Raising and Capacity Building on Access and Benefit Sharing

ICIMOD, in collaboration with the Sichuan Academy of Environmental Sciences; Chengdu Institute of Biology (CIB), Chinese Academy of Sciences; and Kunming Institute of Botany (KIB), CAS, held a 'Regional Workshop on Awareness Raising and Capacity Building to Support the ABS Mechanism under the CBD Nagoya Protocol' 15–17 May in Chengdu, China. More than 30 participants from Bhutan, China, Germany, India, Myanmar, Nepal, and Pakistan attended this workshop.

Prof. Zhao Xingquan, Director of CIB, addressed the meeting, and participants were able to share experiences on the ratification and implementation of the Nagoya Protocol on ABS. They also discussed and identified common transboundary and other issues related to ABS and the corresponding challenges at the national level, and discussed



Regional workshop on awareness raising and capacity building to support the access and benefit sharing mechanism

important articles of the Nagoya Protocol in order to develop some guidelines for moving forward.

The workshop gave participants a chance to improve understanding of important issues relevant to the implementation of the Nagoya Protocol and share effective ABS mechanisms that can be used in critical landscapes like the transboundary Kailash Sacred landscape.

Workshop on Conservation and Sustainable Development in the Karakoram-Pamir Landscape

From 19 to 22 May 2013, ICIMOD and the Xinjiang Institute of Ecology and Geography (XIEG), CAS, organized a workshop on Conservation and Sustainable Development in Karakoram-Pamir Landscape in Urumqi, China. The symposium attracted more than 50 researchers and officers from CAS, ICIMOD, the Forestry Administration of Pakistan, the State Forestry Administration of China, the Forestry Administration of Xinjiang Uygur Autonomous Region, Nature reserve region of Taxkorgan county, and Forestry Administration of Kashi prefecture, Xinjiang.

The symposium aims to promote biodiversity conservation and sustainable development in the Karakoram-Pamir region and to develop action plans. In the symposium, researchers and officers discussed topics of economic and social development, biological resources and biodiversity conservation, regional development programming, and sustainable development of the Karakoram-Pamir.

XIEG has endeavoured to protect transboundary biodiversity along the China-Pakistan border since 2003. During the symposium, Prof. Chen Xi, Director of XIEG, said, "Based on political mutual trust, similar culture and beliefs, and convenient traffic conditions, I hope transboundary cooperation for biodiversity conservation between China and Pakistan will obtain significant achievements."

Workshop on Conservation and Sustainable Development in the Karakoram-pamir Landscape



International Symposium on Changes in Glaciers and Ice Sheets

The International Symposium on Changes in Glaciers and Ice Sheets was held at the Institute of Tibetan Plateau Research (ITPR), CAS from 28 July to 2 August 2013. The meeting, which was organized by the International Glaciological Society (IGS) and ITPR, attracted 172 participants from 22 countries, including some prominent glacier scientists such as Qin Dahe, CAS Member; Prof. Douglas MacAyeal, Chair of IGS; Prof. Robert Bindshadler, former Chair of IGS; and Prof. Lonnie Thompson.

Glaciers and ice sheets are important components that control sea level change. In response to a warming climate, the Greenland and West Antarctic ice sheets have significantly lost mass during the last decade, and mountain glaciers worldwide have rapidly declined. Changes in mountain glaciers have direct impacts on human activities, especially in mid-altitude regions, where changes in high-altitude snow and ice can directly affect human activity. Therefore, the symposium specifically included topics pertinent to the earth's 'Third Pole', including the assessment



International Symposium on Changes in Glaciers and Ice Sheets

of present glaciers and ice sheets, remote sensing technology, ice change in the Third Pole, disasters, and impacts on society.

In order to improve our understanding of the dynamics of cryospheric change, interactions with the climate, and impacts on the living environment of mountainous regions, this symposium provided a

forum for general discussion on these components of the global cryosphere with broader aspects from recent in situ observations, remote sensing measurements and modelling efforts. This symposium increased public awareness of global changes in glaciers and ice sheets, especially the about changes in the environment and water resources of the Third Pole and surrounding regions. Moreover, this symposium promoted the TPE plan and enhanced cooperative research on snow, ice, and environmental change between China and the surrounding countries.

First International Conference on Environment, Energy, and Development in Rwanda

Organized by the Independent Institute of Lay Adventists of Kigali in conjunction with the Xinjiang Institute of Ecology and Geography, CAS (XIEG), the first International Conference on Environment, Energy and Development (ICEED 2013) was held in Rwanda 7-8 August 2013. The conference revolved around the theme 'Environment Energy, and Development'. More than 160 participants from Austria, China, Ethiopia, India, Morocco, Nigeria, Rwanda, Tanzania, and Uganda attended the meeting.

Discussion during two plenary sessions and two parallel sessions were held on the following topics: urban ecology, climate change, environment regulation, new technologies, water management,

environmental risk assessment, energy needs and solutions, sustainable economics, resource management, soil conservation, clean solution, and modelling approaches in environment.

Prof. Chen Xi, Director of XIEG, and Ngamiye Jean, Director of the Independent Institute of Lay Adventists of Kigali, gave opening remarks during the opening ceremony. Prof. Li Lanhai from XIEG presented a report on climate change and water resource in arid areas of Xinjiang.

The meeting laid a good foundation for further cooperation, and both sides put forward proposals for joint training and cooperative research projects, including the establishment of the Natural Resources and Environmental Research Centre of excellence in East Africa. This centre will help promote the dissemination of scientific research problems on resource and environment in East Africa, carry out research on sustaining resources and responses to global change, and promote capacity building in ecology and environmental science research in East Africa.

Third Africa-Asia Drought Adaptation Forum Held

From 15 to 21 August, the third Africa-Asia Drought Adaptation Forum (AADF) was held in Urumqi to provide a communication opportunity for the researches in the field of mitigating drought disaster risk, and to achieve agreed targets of south-south cooperation in drought disaster risk reduction under the frame of Africa-Asia Drought Risk Management Peer Assistance Network.

The forum was jointly organized by the Australian Agency for International Development (AusAID), Drylands Development Centre (DDC) of United Nations Development Programme (UNDP), UNDP Country Offices in China, China International Center for Economic and Technical Exchanges, and Xinjiang Institute of Ecology and Geography (XIEG), CAS. More than 40 domestic and foreign researchers from Ethiopia, Ghana, Namibia, Zimbabwe, Mauritania, Kenya, USA, Japan, India and China attended the forum.

Prof. Lei Jiaqiang, Deputy Director of XIEG, CAS, presided over the opening plenary and. Fu Chunli, Deputy Director of Xinjiang Branch, CAS, and Xiao

First International Conference on Environment, Energy, and Development in Rwanda



Fenghuai, Director of the China International Center for Economic and Technical Exchanges, attended the opening plenary and presented welcome addresses.

This forum was divided into two parts: symposium and field investigation. On the first two days, the symposium was conducted and mainly focused on the utilization, protection and management of water resources, degradation and restoration of soil structure, and soil fertility management. For the remaining days, researchers conducted field investigations in the Turpan Eremophytes Botanical Garden, CAS; Taklimakan Station for Desert Research, XIEG, CAS; and Qira National Field Research Station for Desert Steppe Ecosystems.

Meetings

2013 Annual Meeting of Geographical Society of China (Southwest)

The Southwest Chapter of the Geographical Society of China (GSC) held its annual meeting in Kunming 27-29 April 2013 with the theme Mountain Environment and Ecological Civilization Construction. More than 240 participants from domestic universities, companies, and institutions attended the meeting, which was co-organized by the Southwest Branch of the GSC, International River Centre of Yunnan University, and Yunnan Geography Society. The Sichuan Geography Society, Chongqing Geography Society, Guizhou Geography Society, Tibet Geography Society, Mountain Branch of the Geographical Society of China and ICIMOD Chinese Committee provided assistance to the meeting.

Prof. Lin Wenxun, President of Yunnan University, opened the meeting with a speech. Prof. Zhang Guoyou, Secretary General of GSC, and Prof. Deng Wei, Director of the Institute of Mountain Hazards and Environment, CAS, also delivered speeches. Prof. He Daming, Director of International River Centre of Yunnan University and President of Yunnan Geography Society, hosted the opening ceremony. Prof. Zhang Guoyou issued the letter of appointment to the first leaders.

This meeting consisted of keynote speeches and sessions on mountain hazards and global climate change; mountain resources, mountain economy and

ecological civilization construction; plateau mountain environment; security of the Chinese borderland; and ecological civilization construction and regional development in the Three Gorges as well as two forums. Ninety-eight participants made oral speeches, including 44 graduate students and 19 basic geographical educators. Participants had heated discussion focusing on frontier science and regional problems. This type academic exchange plays an important role in the development of geographical science in the southwest areas of China.

At the closing ceremony, the Organizing Committee issued excellent paper awards, including 18 graduate papers and 12 basic geographic education papers. After that, Prof. Cui Peng, Vice President of GSC; Prof. Zhang Guoyou; Prof. HE Daming; Prof. Qimei Duoqi, Secretary General of Tibet Geography Society; Prof. Wang Jianli, President of Chongqing Geography Society; and Prof. Xiong Kangning, Vice President of Guizhou Geography Society delivered speeches. In closing the event, the Organizing Committee announced that the 2015 annual meeting of GSC (Southwest) will be held in Guizhou Province.

Focus

450th Session of Xiangshan Science Conference: Climate Change and Ecological Security Shelter on the Tibetan Plateau

The uplift of the Tibetan Plateau changes the dynamic and thermal conditions of the atmosphere, forming a unique distribution pattern of heat and moisture and leading to changes of the general atmospheric circulation in the Tibetan Plateau and surrounding area. Against the background of global warming, extreme weather and climate events occur frequently, exerting influence on the climate system of east China and causing droughts and flooding. The Plateau plays the important role as a source of water. It has the third largest group of glaciers in the world behind to the Antarctic and the Arctic, and the world's largest group of plateau lakes both in terms of number and area. It is the source of more than ten major Asian rivers including the Yangtze and the Yellow River, playing an important role in safeguarding the water security of China. With its unique wildlife and plants, the Plateau plays a major role in maintaining

both the genetic diversity and uniqueness of the regions biodiversity. With 62,000 km² of forests and 1,500,000 km² of natural grasslands, the Plateau is an important carbon sink. Its more than 1,400,000 km² of permafrost also sequesters large amounts of greenhouse gases. Changes in its surface processes will have a direct bearing on the carbon absorption, emission, and atmospheric content of greenhouse gases. Therefore, the Plateau is an important ecological shelter for China.

Global warming is bringing about changes in the processes of many types of surfaces such as glaciers, permafrost, lakes, wetlands, grasslands and desert. These changes influence not only the frequency and magnitude of regional disasters and the economic growth of the Plateau, but also its functions as an environmental and ecological shelter on a larger scale.

The 450th Session of the Xiangshan Science Conference on Climate Change and Ecological Security Shelter took place from 11 to 13 December in Beijing with the objectives of investigating the influences of the land surface environment and extreme climate events of the Tibetan Plateau on its neighbouring regions against a background of global warming; expounding the internal relationships between contemporary surface processes of the Plateau (such as glaciers, permafrost, lakes, wetland, grassland and desert) and regional water circulation and related disasters; and exploring the relationships between current conditions of biodiversity of the Plateau and climate evolution and offering suggestions on measures to maintain the function of the Plateau as an ecological security shelter against the background of global warming.

Under the theme of Climate Change and Ecological Security Shelter on the Tibetan Plateau, the symposium invited scholars and experts from different fields to have in-depth discussions on: changes in land surface of the Plateau and extreme environment events; the influences of the Plateau's cryosphere on the regional water circulation and ecological changes; the responses and influences of the Plateau's land cover changes to climate change; assessment of the role of the Plateau's ecological system as a carbon source and sink and related suggestions.

The meeting was co-chaired by Sun Honglie and Zheng Du, Research Professors, Institute of Geological Sciences and Natural Resources Research, CAS; Yao Tandong, Research Professor, Institute of Tibet Plateau Research, CAS; and Qin Dahe, Research Professor, China Meteorological Administration. A keynote review report was given on Global Warming and Environmental Responses of the Tibetan Plateau by Yao Tandong. Reports on the central topics on specific topics including Climate Change on the Tibetan Plateau and Extreme Environmental Events by Wu Guoxiong; Cryosphere Processes on the Tibetan Plateau and Regional Water Circulation by Yao Tandong; Land cover of the Tibetan Plateau and Climate Change by Liu Jiyuan; and the Carbon Source and Sink Effects of the Ecological System on the Tibetan Plateau by Li Wenhua.

China considers ICIMOD as a valuable platform for increasing scientific exchange and regional cooperation among countries of the Hindu Kush Himalayas.

Secretariat of the Chinese Committee on ICIMOD
Institute of Mountain Hazards and Environment,
Chinese Academy of Sciences (CAS)
No. 9, Section 4, Renminnanlu Road 610041,
Chengdu, Sichuan
Tel 86-28-85237507 **Fax** 85222258
Email pinghuahu@imde.ac.cn



科研动态

“青藏高原多层圈相互作用及其资源环境效应”研讨会在京召开

2013年3月28日，战略先导专项“青藏高原多层圈相互作用及其资源环境效应”第七次汇报会在京召开，会议由中科院资环局局长范蔚茗主持，专项项目首席科学家姚檀栋院士、吴福元研究员和专项19个课题的负责人和汇报课题的主要学术骨干参加了会议。本次会议特邀了国家自然科学基金委员会地学部柴育成主任、中科院生态环境中心刘国华研究员、中国地质大学（北京）薛春纪教授参会。

“冈底斯弧的形成与铜钼金成矿作用”、“高原隆升与风化剥蚀及其气候效应”、“生态安全屏障建设的环境效应评价与优化建议”等课题的负责人重点从课题聚焦的科学问题、目前国内外的理解程度、解决思路（研究方案）、研究工作是否能够解决这些科学问题等几个方面进行了汇报。

在听取汇报后，项目首席科学家指出在项目的设计过程中，专项是从顶层设计的，下设的各子课题应对专项题目理解彻底，建议今后项目各课题之间一定要加强研讨与交流；明确各课题拟解决的关键问题，这些关键科学问题一定要在学科上有所突破。在课题执行过程中要加强与其它学科的结合，将各自的领域研究做宽、做深；并在新技术、新方法上有所突破。

科西河流域国际合作项目（Koshi Basin Programme）启动会在成都山地所召开

由澳大利亚国际开发署资助，国际山地中心（ICIMOD）主持的“科西河流域国际合作项目—水资源管理和降低灾害风险相关政策 and 制度分析”启动会和实施方案研讨会，于2013年5月27-28日在成都山地所召开。会议由国际山地中心中国委员会秘书处承办。

科西河发源于我国的西藏自治区喜马拉雅中部，流经中国、尼泊尔和印度，流域内包括珠峰在内的5座8000米以上的山峰，是南亚地区极为重要的跨境河流之一。2009年，国际山地中心中国委员会牵头组织，申报了中科院对外合作重点项目“气候变化影响下喜马拉雅地区山地地表过程与区域适应对策前期研究”，该项目由中科院成都山地所、地理资源所、寒旱所、成都生物所和ICIMOD、尼泊尔Tribhuvan大学地理系等协同合作，历经3年多的共同努力取得了丰富的成果，为KBP项目奠定了前期的研究基础，形成了国际合作团队，经多方努力，2012年KBP项目



获得澳大利亚国际开发署 (AusAID) 的资助。该项目第一阶段为2012—2016年, 成都山地所参与了此项目的申报和实施。

成都山地所所长邓伟与参加会议的国际山地中心和尼泊尔Tribhuvan大学的项目组外方专家进行了会谈, 并就项目的实施和与国际山地中心和尼泊尔Tribhuvan大学的进一步合作交换了意见。成都山地所科技处负责人和项目组成员共20余人参加了研讨会。

成都山地所科技处处长熊东红代表成都山地所对来访的专家致欢迎词并简要介绍了成都山地所的基本情况。国际山地中心的Arun Shrestha, Shahriar Wahid, 尼泊尔Tribhuvan大学的Narendra Khnaal和成都山地所的陈宁生、方一平等分别作了关于项目进展和研讨会目的、项目研究的基础, 方法和工作计划等报告。参会人员就项目实施的具体计划, 目标和行动计划进行了充分的讨论, 达成了共识, 为项目的顺利实施奠定了良好的基础。

会议期间, 项目组成员到汶川地震灾区, 考查了汶川映秀牛圈沟、红椿沟泥石流防治工程以及地震遗址。

“第三极环境(TPE)”国际计划—第六次尼泊尔气候环境联合考察成功实施

2013年4月27日—5月16日, 在“第三极环境(TPE)”国际计划的资助下, 中国和尼泊尔科学家第六次在喜马拉雅山南坡尼泊尔朗塘(Langtang)流域联合开展冰川、径流和气象等方面的野外考察。参加此次考察活动的中方科考人员有中科院青藏所余武生副研究员、龚平副研究员和李生海博士等3人, 尼方科考人员有尼泊尔

Tribhuvan大学Lochan P. Devkota教授等, 国际山地中心(ICIMOD)冰川学家Dorothea Stumm博士和尼泊尔加德满都大学Gurung Sanjaya等。历经四天的长途跋涉, 到达Yala冰川末端。

本次考察顺利地完成了以下主要观测活动: Yala冰川物质平衡观测; Yala冰川表面绝对高程和冰川边缘位置的差分GPS测量; 沿途维护梯度架设的持久性有机污染物(POPs)被动采样器并取回上半年度的样品; 维护Kyanjin Gompa (3900 m)与Tarahara (119 m)两地的自动气象观测站, 并下载气象数据。

另外, 在考察期间, 在Kyanjin Gompa、Langtang Valley以及Tarahara等固定站点分别取回了2012年5月—2013年4月期间的降水与河水样品, 并沿途采集了河水、土壤以及植被样品, 用于监测该流域的水体稳定同位素、持久性污染物以及土壤正构烷烃的空间变化特征。

由于前期“第三极”冰川、径流和气象等方面的研究较为分散, 缺乏喜马拉雅山南、北坡相关项目进行综合与比较研究。为此, “第三极环境”国际计划的推动, 特别是在尼泊尔朗塘流域全面开展的各项研究活动, 为揭示喜马拉雅南、北坡大气环流、水汽输送过程, 冰川变化规律与差异, 水体稳定同位素的南北差异以及持久性污染物的传输路径等研究提供了契机。

西藏樟木滑坡勘查评估与综合防治方案”顺利通过评审验收

2013年6月2日, 中国科学院科技促进发展局在北京组织国土资源部地质灾害应急技术指导中心副主任殷跃平研究员和西藏自治区国土资源厅总工多吉院士等有关专家, 对中国科学院水利部成都山地灾害与环境研究所牵头承担的西藏区域协同创新平台“西藏樟木滑坡勘查评估与综合防治方案”项目进行评审验收。中国科学院科技促进发展局冯仁国副局长、资源环境处周桔处长和前沿科学与教育局地球科学处段晓男副处长以及西藏自治区国土资源厅王峻厅长、地质环境处刘伟处长出席了验收评审会。会议由冯仁国副局长主持。

山地所副所长韦方强研究员代表项目组向专家组详细汇报了项目组开展的主要





工作、樟木滑坡勘查和评估结果、综合防治方案和综合防治工程投资估算等内容。专家组在听取汇报和查阅相关资料以及对项目组进行质询后,经认真评议,认为项目技术路线正确,资料翔实,勘查结论可靠,推荐的滑坡防治方案可行,可供下一步的工程设计参考,一致同意通过评审验收。

项目通过评审后,西藏自治区国土资源厅王峻厅长向中国科学院对西藏樟木滑坡防治给予大力支持和帮助表示由衷的感谢,同时希望对樟木口岸存在的其它地质灾害也开展相关研究。

冯仁国副局长在会议总结中感谢专家组认真的评审和提出的宝贵意见与建议,感谢西藏自治区国土资源厅和相关单位给予本项目的大力支持,感谢项目组8个月来的努力和辛勤工作。指示项目组尽快按照专家意见对报告进一步修改完善,并提交有关部门。

青藏高原脆弱生态修复技术研究 与示范项目启动与工作进展汇报会在 京召开

国家科技支撑计划项目“青藏高原脆弱生态修复技术与示范”项目于2013年6月23日在北京召开了项目启动与近期工作汇报会。西藏自治区科技厅孙玉明副厅长、杜恩社处长和张丽红处长听取了汇报,中国科学院地理科学与资源研究所党委书记成升魁研究员、科研处副处长戴尔阜研究员,以及郑度院士、张镱锂研究员和杨林生研究员,项目负责人陈远生研究员,课题负责人方江平教授、王兆锋副研究员与各课题骨干成员等20余人参加了会议。

会议由成升魁研究员主持。陈远生介绍了项目立项及近期工作进展;方江平、王兆锋和陈远生分别就“青藏高原典型退化生态系统修复技术与示范”、“青藏高原生态环境脆弱分区及典型脆弱生态系统监测与评估研究”、“青藏高原典型脆弱生态环境对民生的影响研究”三个课题的工作方案和研究进展作了详细汇报。

与会专家针对汇报内容,对项目及课题进行了深入的讨论,提出了具体意见和建议。专家指出:支撑项目要突出解决现实问题的能力,要从可实施的角度给出技术规范和指导;在有限经费支持下,进一步聚焦研究内容,抓住关键问题来开展研究。

专家建议“退化生态系统修复技术与示范”课题注意修复植物的适宜性,选择本土植物;增设对照实验,比较人为扰动和自然封育的差异;推广示范区实施要及早开展;在“脆弱生态系统监测”研究中,建议考虑水分条件的监测内容;“生态环境对民生的影响研究”要考虑西藏民生问题的特殊性和代表性,把环境与贫困等民生问题结合起来,提出具有针对性的应对技术;项目要充分协调各课题之间的数据共享;加强与地方专家和领导的沟通。

孙玉明副厅长认真听取了项目汇报和专家意见,他对与会专家给予该项目及西藏科技事业的指导与支持表示感谢,并对项目的实施提出了指导性意见并表示:自治区科技厅将全力支持项目的各项研究工作,及时向有关部门反映项目执行过程中的问题及建议。

会后,项目组成员进一步讨论了专家意见和建议,深化了各课题研究方案,为项目的顺利开展奠定了基础。

青藏高原生态环境变化评估报告研 讨会顺利召开

2013年7月27日,为进一步落实白春礼院长和丁仲礼副院长就推动西藏区域科技创新集群建设的指示,促进“西藏生态环境变化监测系统建设及综合评估”任务实施,青藏高原生态环境变化评估报告研讨会在京顺利召开。孙鸿烈院士、郑度院士、西藏创新集群首席科学家姚檀栋院

士、集群办公室主任、科技发展促进局冯仁国副局长与来自中科院科技促进发展局资环处、青藏高原研究所、成都山地灾害与环境研究所、地理科学与资源研究所、寒区旱区环境与工程研究所、遥感与数字地球研究所和中国藏学研究中心的领导专家就西藏高原生态环境变化评估报告进行了充分研讨。

会议听取了徐柏青研究员作的“西藏高原生态环境变化评估报告初步方案”专题汇报。随后, 针对该报告充分发表了意见, 从科学的层面提出评估报告从正反两面客观地评价西藏生态环境的过去、现状和趋势; 系统的总结过去的研究资料, 在科学评估的基础上, 提出那些有利于政府改进地方工作推动发展的报告; 分类研究自然变化和人类活动对生态环境的影响, 特别要从区域面上出发选取典型案例开展研究; 科学辩证的研究变好与变坏的风险转换, 长期与短期变化效应, 提出有利于地方可持续发展的政策咨询; 把社会经济发展同区域环境变化联系起来, 从不同时段分析环境变化与社会经济的关系, 等等。

姚檀栋院士感谢各位专家的指导, 他指出, “西藏生态环境变化监测系统建设及综合评估”是西藏区域科技创新集群建设的三个任务之一, 这是白春礼院长和白玛赤林主席共同确定的任务, 既是科学问题, 又是政治问题, 两方面要兼顾考虑。要吸纳院内外专家积极参与, 客观公正地评价西藏生态环境问题, 产出系列专业报告和咨询报告, 为西藏自治区经济社会发展和人民生活水平提高提供科技支撑。

成都生物所在兴都库什-喜马拉雅地区泥炭地国际合作研究进展

近期, 国际山地综合发展中心正式启动一项名为“兴都库什-喜马拉雅地区泥炭地温室气体排放评估”的研究。该项目选定尼泊尔境内位于两个海拔梯度上的泥炭地为主要研究对象, 分别是位于Chitwan National Park缓冲区的Bishazari Lake (海拔286米), 和位于Shivapuri-Nagarjun National Park的Dhaap Lake (海拔2089米)。此外, 项目还选定位于兴都库什-喜马拉雅地区东部的若尔盖泥炭地作为参照系统。该项目旨在对兴都库什-喜马拉雅



地区泥炭地温室气体排放的时空格局进行评估, 同时研究控制泥炭地温室气体排放的关键生态学因素。为保证项目的顺利实施, 项目组建了一支由国际山地中心内部专家, 尼泊尔最著名的大学 Tribhuvan University的研究生, 上述两座国家公园的员工组成的研究团队。目前在国际山地中心担任生态系统分析师的朱单博士(在中国科学院和国际山地中心联合资助的青年学者项目协议框架下加入国际山地中心的成都生物研究所生态中心助理研究员)负责该团队的管理工作。国际山地中心 Ecosystem Services Theme 负责人吴宁教授对该项目的运行进行总体指导。

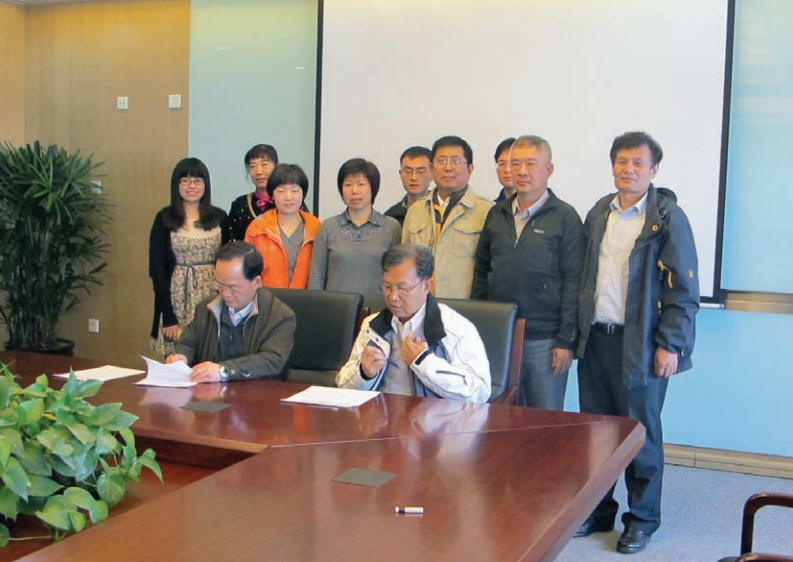
该项目将是由中国科学家主导, 来自尼泊尔、巴基斯坦、印度、不丹以及德国等多国学者共同参与, 针对喜马拉雅山脉南坡地区泥炭地温室气体排放的首次研究。项目得到国家自然科学基金委和国际山地中心创新基金的共同资助。

合作与交流

青藏高原所与缅甸地质学会签署合作协议

2013年4月8日, 应所长姚檀栋院士的邀请, 缅甸地质学会 (Myanmar Geosciences Society) 副会长U Kyaing Sein等一行三人对青藏高原所进行了访问, 并就双方合作研究进行了磋商。

双方在多次沟通基础上签署了双方合作备忘录, 就联合建立定位观测站、联合开展野外科学考察、进行气候与环境变化研究、培养青年人才等方面达成了众多共识。



此次合作协议的签署，为进一步推进第三极环境（TPE）国际计划提供了良好契机，对加强缅甸等区域的深入研究及全面认识第三极地区的气候、环境和青藏高原隆升等关键科学问题具有重要战略意义。

云南省自然保护区野生植物种质资源采集技术培训班(第五期)成功举办

2013年6月16-20日，由中国科学院人事局和云南省林业厅主办，中国科学院昆明植物研究所中国西南野生生物种质资源库承办的“中国科学院继续教育与培训精品项目——云南省自然保护区野生植物种质资源采集技术培训班（第五期）”在中国科学院昆明植物研究所和云南轿子雪山国家级自然保护区成功举办。本次培训班有来自云南黄连山、高黎贡山、沧源南滚河、兰坪云岭等22个国家级、省级自然保护区管理局（所）以及中国科学院科技促进发展局生物技术处、成都中医药大学药学院、山东省科学院生物研究所、广西药用植物园等单位的43名管理人员和专业技术人员参加。中国科学院昆明植物研究所所长李德铎研究员、中国科学院人事局继续教育与培训处张洁处长、中国科学院科技促进发展局生物技术处副处长田永生、云南省林业厅野生动植物保护与自然保护区管理处赵晓东处长等领导出席了开班仪式并讲话。

此次培训班包括理论培训和野外实践两部分。理论培训在中国科学院昆明植物研究所中国西南野生生物种质资源库会议室举行。野外分组实践在云南轿子雪山国家级自然保护区进行。通过培训班的学习和交流，学员们基本掌握了野生植物种质资源

采集相关技术，达到预期培训目标。培训结束后，中国科学院昆明植物研究所和云南省林业厅共同为学员们颁发了结业证书。

中国科学院昆明植物研究所和云南省林业厅于2007年开始，共同举办“云南省自然保护区野生植物种质资源采集与保存技术”系列培训班，目前已成功举办了五期培训班，为自然保护区管理人员和科技人员提供培训140余人次，产生了良好的社会效益，该培训项目第五期获中国科学院首批继续教育与培训精品项目计划资助，资助经费为10万元。

学术研讨

湄公河环境国际研讨会在越南成功召开

2013年3月5-7日，由德国联邦教育与研究部(BMBF)资助，德国航天中心(DLR)和越南科技部共同主办，越南南方水资源研究所、越南科学院、中国国家自然科学基金委、中国科学院地理科学与资源研究所等参与协办的“湄公河环境国际研讨会”，在越南胡志明市圆满召开。来自德国、越南、美国、泰国、老挝、柬埔寨、缅甸和中国等国家的400多位学者参与了本次研讨会。在国家自然科学基金委员会和科技部基础性工作专项以及地理资源所“一三五”项目的资助下，由30多名研究人员组成的中国代表团参与了此次研讨。

会议期间，200多位专家学者围绕10个专题进行了研讨，这些专题是：湄公河水电开发对河流生态、经济的影响；湄公河流



域灾害和减灾；水文生态和水文地理；森林动态、保护及可持续管理；土地利用动态变化；水生生态、多样性和水质保护；洞里萨湖：生态、生物多样性和水质保护；湄公河三角洲：气候变化相关挑战；流域管理的协作平台建设：信息系统及空间基础设施；城市化和工业化对农业和水资源的影响，专题研讨主要是以口头报告和展板的形式进行。

中国科学院地理科学与资源研究所沈镭研究员在大会开幕式上作主题报告，他重点介绍了中国近4年来在澜沧江流域开展的水资源、土地资源、生物资源、生态系统、自然遗产、人居环境和灾害等综合考察和研究成果及其资源环境信息系统建设进展，指出了开展有关国际合作的重点领域，受到了与会国家领导和专家的普遍好评。

湄公河是澜沧江流域的下游部分，先后流经中国、缅甸、泰国、老挝、柬埔寨、越南六国，作为世界第六大河，该区域在最近30年以来吸引着来自世界各国的广泛关注。中国位于澜沧江-湄公河的上游，中国对澜沧江的水电等资源开发等引起了国际社会的极大争议。本次中国代表团参会的目的，一是利用湄公河研讨会这个平台，充分向外界展示中国在澜沧江流域的考察和研究成果；二是了解国际社会和流域所在国家对中国开发利用澜沧江的真实关切，掌握国际同行在湄公河流域的研究现状与进展；三是加强我国与澜沧江-湄公河下游国家和国际社会在澜沧江-湄公河流域的学术交流和联系。

通过组织中国科学家积极参与本次国际研讨会，在充分吸收国际社会湄公河相关研究工作和关注热点信息的同时，有助于准确把握澜沧江-湄公河流域国家的迫切需

求，提炼未来与澜沧江-湄公河流域国家的合作方向，为中国顺利开展和推进与下游国家之间的合作奠定了坚实基础。

第四届“第三极环境（TPE）”国际资深专家研讨会在印度召开

2013年4月1-3日，第四届“第三极环境（TPE）”国际资深专家研讨会在印度北阿坎德邦首府德拉敦召开，由瓦迪亚喜马拉雅地质研究所(Wadia Institute of Himalayan Geology)承办。冰岛总统和印度政府对此研讨会的召开给予了大力支持。来自14个国家的近50位国际知名科学家和国际组织官员参加了这次研讨会。其中有来自第三极地区的代表，如中国、印度、尼泊尔、塔吉克斯坦、吉尔吉斯斯坦和孟加拉国，还有其它地区的优秀科学家，如美国、德国、冰岛、法国、加拿大、瑞士、瑞典、日本等。

研讨会开幕式于4月1日下午举行，冰岛总统Olafur Grimsson亲临大会并致辞。他为能够参与到以研究喜马拉雅地区为主题的TPE计划中而感到欣慰，并对中印等国科学家的努力表达敬意。他希望以此次研讨会为契机，进一步推动第三极研究与南北极地区环境研究的交流与合作。印度科技部长Jaipal Reddy也受印度总理委托，参加了开幕式并致辞，指出世界各国需要通力合作以应对气候变化这一全球性的问题。TPE联合主席、中国科学院院士姚檀栋和美国俄亥俄州立大学教授朗尼·汤普森也分别在开幕式上致辞，对与会的科学家表示欢迎，并介绍了TPE的发展历程。联合国教科文组织代表以及瓦迪亚喜马拉雅地质研究所所长也先后致辞，对“第三极环境”计划表示支持，希望能进一步促进相关科学领域的研究和交流。

此次研讨会是TPE计划继2009年北京、2010年尼泊尔加德满都、2011年冰岛雷克雅未克之后又一次成功召开的意义深远的国际会议，它不但进一步提升了TPE计划的区域认知力和国际影响力，还理清了第三极环境研究中亟需应对的关键科学问题，调动了多方面参与计划的积极性，有利于推动区域合作、进一步提升第三极环境研究的水平。

TPE国际计划是我院十二五期间重点推动的国际计划之一，是中国科学院“走出去



战略”的重要组成部分。四届TPE国际资深专家研讨会汇集了全球研究第三极地区环境的顶尖科学家和学者，加强了交流、推动了合作、实现了研究成果的集成并全面深入地了解全球变暖背景下第三极环境的变化。

欧洲地球科学联合会（EGU）2013年大会“第三极环境”TPE分会在维也纳成功举办

2013年4月7-13日，欧洲地球科学联合会全体大会（General Assembly of European Geosciences Union）在奥地利维也纳举行。作为大会的一部分，“第三极环境”（TPE）专题分会于2013年4月11日举行。此次分会是由中国科学院青藏高原所马耀明研究员、张凡研究员、荷兰屯特大学（University of Twente）Bob Su教授、意大利国家科学院大气科学与气候研究所Antonello Provenzale教授、法国冰川与地球物理实验室Hans-Werner Jacobi 以及全球能量和水循环计划（GEWEX）办公室负责人Peter van Oevelen联合召集。这也是连续第二年成功申办专题分会。

此次TPE分会的主题是“高海拔地区水文气象过程观测与模拟（Observation

and Modeling of Hydrometeorological Processes in High Elevation Areas）”

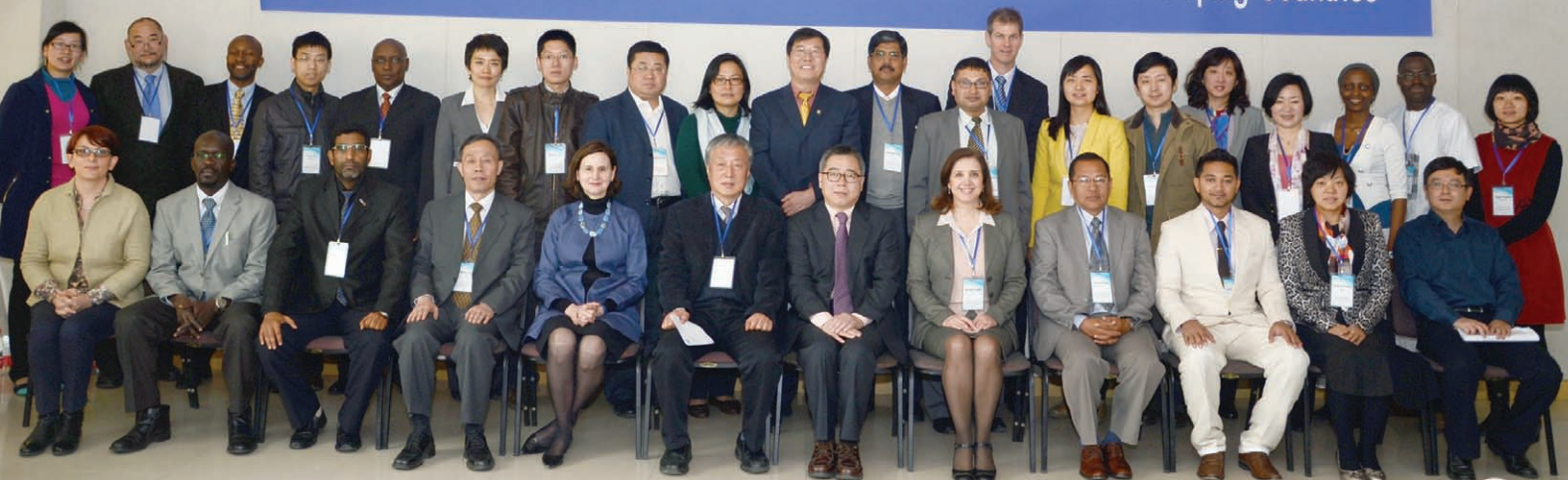
。围绕着这一主题，来自中国、法国、意大利、德国、荷兰和美国的12位专家学者在分会场进行讲演，同时15位学者及研究生以海报的形式与大会上万名参会者进行交流，展示各自在第三极地区地表过程和环境变化研究领域的相关成果。

在此次EGU大会上，以TPE国际计划为核心的TPE专题报告和展板吸引了各国众多专家学者，为该领域科学家提供了一个交流经验和分享最新科研成果的理想平台，无论是演讲会场的热烈讨论，还是展板会场的深入交流，均体现了第三极环境相关的水文气象过程科学问题正引起广泛关注。此次会议在EGU与TPE计划的共同主办下取得了圆满成功，进一步扩大了TPE 计划的国际影响力，吸引了更多科学家关注第三极环境研究。

“增强脆弱发展中国家气候变化适应力的能力、知识和技术支持”项目启动会在京召开

2013年4月22日，由全球环境基金气候变化特别基金（GEF-SCCF）资助的项目“增强脆弱发展中国家气候变化适应力的能

GEF-SCCF Project Launch Workshop "Enhancing Capacity, Knowledge and Technology Support to Build Climate Resilience of Vulnerable Developing Countries"



力、知识和技术支持”启动会在京召开。本次会议由联合国环境署国际生态系统管理伙伴计划（UNEP-IEMP）和中国科学院地理科学与资源研究所共同组织；该项目由中国国家发展与改革委员会、联合国环境署、中国科学院共同实施；UNEP-IEMP作为项目管理办公室将协调该全球项目的运作和实施。参加本次项目启动会的代表来自全球环境基金、中国国家发展与改革委员会、联合国环境规划署、中国科学院、中国国家财政部、联合国驻华代表处，联合国发展计划署等，还有项目国家毛里塔尼亚、尼泊尔和塞舌尔政府代表，非洲气候政策中心和亚太适应网络的区域代表等也参加了会议。

会上，国家发展与改革委员会气候司司长苏伟表示，气候变化是21世纪人类共同面临的重大挑战，呼吁国际社会共同将气候变化纳入可持续发展的总体框架下，并期望本项目成为气候变化南南合作的旗舰项目；国家财政部国际司梁子谦副司长也表示，中国愿意在南南合作的框架下与广大发展中国家和国际社会共享中国的经验与启示；联合国驻华代表罗黛琳女士则表示，现阶段各国和各地区需要采取跨界的有效措施来应对全球问题，而南南合作无疑是很重要的手段；全球环境基金气候变化适应战略与运行秘书长Bonizella Biagini女士认为，该项目是具有创新和综合的特点，并高度评价了通过本项目与中国建立的应对气候变化伙伴关系；联合国环境署GEF适应部主管Ermira Fida女士

认为，本项目将拓展联合国环境署的基于生态系统的适应旗舰计划，也是GEF去年年底发布生态系统途径指南以来的第一个此类项目。本项目将为广大发展中国家提供基于生态系统途径的适应工具、方法和平台，推动发展中国家《国家适应计划》实施。

本次会议会期共三天，分别讨论了基于生态系统适应的能力建设、规划与实施，试点国家和地区的基于生态系统适应项目实施计划，最后总结回顾了会议的主要发现和建议并细化了实施计划。

该项目将采用生态系统适应（EBA）增强气候变化适应力，在毛里塔尼亚（干旱生态系统）、尼泊尔（山地生态系统）和塞舌尔（海岸生态系统）三个试点国家及非洲和亚太两个地区开展机构能力建设、知识共享和适应技术转移等。

国际山地中心在成都生物所举办提高意识与能力培养以支持惠益分享机制区域研讨会

2013年5月15-17日，由国际山地综合发展中心（ICIMOD）主办，中科院成都生物所、四川省环境保护科学研究院及中科院昆明植物所承办的在生物多样性公约名古屋协定书背景下提高意识与能力培养以支持惠益分享机制区域研讨会在成都召开。

成都生物所所长赵新全参加会议并致辞。会议中，参会代表先后就交换与分享



名古屋协定书的批准与实施经验、重点内容及展望、ABS机制的国家层面问题等议题展开了讨论。

来自中国、不丹、印度、缅甸、尼泊尔、巴基斯坦及德国的30余名代表参加了本次研讨会。

专家学者齐聚乌鲁木齐共商喀喇昆仑-帕米尔区域保护与可持续发展

众所周知,喀喇昆仑帕米尔区域是中国—巴基斯坦跨边境重要的保护地区,其脆弱的生境、独特的文化以及丰富的物种多样性备受世界的关注。巴基斯坦的红其拉甫国家公园和中国的塔什库尔干自然保护区位于该区域。因此,中巴双边合作尤为重要。

2013年5月19至22日,由国际山地中心(ICIMOD)和中国科学院新疆生态与地理研究所主办的中巴喀喇昆仑—帕米尔区域保护与可持续发展研讨会在乌鲁木齐召开。来自中国科学院、国际山地中心、巴基斯坦吉尔吉特省林业主管部门、中国林业局、新疆维吾尔自治区林业局、喀什地区林业局、塔什库尔干县自然保护区等科

技人员和政府官员近50人参加会议。

与会专家学者官员就中巴帕米尔地区的经济和社会状况、生物资源和生态环境现状以及现有的区域发展规划,中巴帕米尔地区生物多样性保护与当地社区的可持续发展战略进行了讨论和交流。会议旨在通过交流,促进帕米尔地区的生物多样性保护和区域可持续发展,并制定具体可行的行动计划。

据悉,新疆生地所自2003年起开始致力中巴边境跨境生物多样性保护工作。新疆生地所先后多次赴国际山地中心、巴基斯坦商谈合作事宜。新疆生地所所长陈曦在会议上表示,基于中巴双边的政治互信,相似的文化和信仰,便利的交通条件,他坚信中巴跨境生物多样性合作前景光明。

出席会议的还有国际山地中心环境变化与生态系统服务项目部主任吴宁、巴基斯坦吉尔吉特省林业主管官员Khadim H. Saleem、自治区林业厅副厅长乌拉孜别克等。

会后,与会代表参观了新疆阜康国家荒漠生态系统观测野外站、天池人与生物圈保护区、吐鲁番沙漠植物园以及新疆生地所标本馆。

青藏高原所成功举办“冰川与冰盖变化(Changes in Glaciers and Ice Sheets)”国际研讨会

2013年7月28日至8月2日,“冰川与冰盖变化:观测、模拟及环境相互作用(Changes in Glaciers and Ice Sheets: observations, modelling and environmental interactions)”国际研讨会在青藏所成功举办。本次会议由国际



冰川学会 (International Glaciological Society, 简称IGS) 主办, 青藏所承办, 会议主席为姚檀栋院士。共有来自中国、美国、英国、法国、澳大利亚、俄罗斯、尼泊尔等22个国家的172名注册代表 (国外代表73人) 参加了本次会议, 包括秦大河院士、Douglas MacAyeal教授 (IGS主席)、Robert Bindshadler教授 (IGS前主席)、Lonnie Thompson教授等国际著名冰川学家。

冰川和冰盖的变化是全球变暖最明显的表现。本次研讨会的主题是全球变暖背景下冰川与冰盖的变化及其对人类活动和全球环境的影响, 议题包括评估当前冰盖与冰川的状况、遥感方法与技术、第三极地区冰变化的评估、冰芯记录、冰川与冰盖物质平衡、冰川水文过程、灾害与社会影响等。会议报告的主要内容是基于近期对冰冻圈的实地观测、遥感测量和模型模拟的研究成果, 探讨冰川和冰盖变化的动力学特征及与气候的相互作用。

本次会议的举办提高了对全球冰川与冰盖的变化、尤其是第三极及其周边地区雪冰环境变化和水资源的科学认识水平, 进一步推进了“第三极环境 (TPE)”国际计划, 加强了我国与周边国家在雪冰环境和水资源方面的合作研究。

首届“环境、能源与发展国际会议”在卢旺达召开

2013年8月7-8日, 由中国科学院新疆生态与地理研究所和基加利基督夏临学院联合举办的首届“环境、能源与发展国际会议”在卢旺达召开。来自中国、香港、奥地利、摩洛哥、坦赞尼亚、尼日尼亚、乌干达、印度、埃塞俄比亚和卢旺达等国家与地区的160余人参加会议。

与会代表围绕新技术应用、新能源开发与清洁能源、气候变化、环境健康和环境政策、资源管理、水土保持和城市生态等内容进行了交流。会议设立了气候变化、环境政策与新技术应用、水资源管理、环境模型应用、清洁能源与技术分会场。

新疆生地所所长陈曦和基加利基督夏临学院Ngami je Jean院长分别在开幕式上代表会议主办方致辞。新疆生地所李兰海研究员以新疆干旱区气候变化与水资源为主题做了大会发言。

会议期间, 双方提出了今后3年的联合培训和合作研究等计划, 重点讨论了“东非环境研究中心”的建设、遥感技术与应用培训、以及项目合作研究等, 为双方进一步合作奠定了基础。

据悉, “东非环境研究中心”旨在推动东非地区资源与环境科学前沿问题的合作研究与学术交流、联合开展区内资源环境可持续性和全球变化响应的研究工作, 促进东非区域生态与环境科学研究的能力建设。



第三届非洲-亚洲干旱适应论坛 (3rd AADAF) 在新疆乌鲁木齐召开

2013年8月15日, 第三届非洲-亚洲干旱适应论坛在乌鲁木齐召开。

本次论坛由联合国开发计划署(UNDP)旱地发展中心(简称DDC)、联合国开发计划署驻华代表处、中国国际经济技术交流中心和中国科学院新疆生态与地理研究所联合举办。来自埃塞俄比亚、加纳、纳米比亚、津巴布韦、毛里塔尼亚、肯尼亚、美国、日本及印度等国家40余位国内外专家参加了本次论坛。

论坛旨在为来访者提供在减轻旱灾风险领域学习和交流的机会, 并在未来亚非干旱风险管理协作网络的框架下, 就区域间减轻旱灾风险的南南合作达成一致目标。

论坛开幕式由新疆生地所副所长雷加强主持, 中国科学院新疆分院党组书记傅春利、中国国际经济技术交流中心副主任肖凤怀和国家水利部副总工程师庞进武分别致词, 并预祝本届论坛圆满召开。

肖凤怀在大会上重点介绍了自上世纪60年代以来中国对外援助的特色、发展特点及未来的工作重点。庞进武指出, 中国几千年的文明历史就是和水和谐相处的历史, 我国在水资源开发利用上已取得了大量成就, 希望通过此次会议, 促进中国和非洲各国在减灾和水资源利用方面的合作。傅春利简要介绍了新疆在荒漠化治理、生态建设、水资源管理等方面取得的系列重要成果, 希望同参会代表分享新疆在上述领域获取的成功经验。开幕式后, 雷加强围绕新疆荒漠化防治研究进展做了重点发言。

本届论坛采取大会集中研讨与野外实地考察相结合的方式。8月15-16日, 大会围绕水资源利用、保护及管理、土壤退化、修复与土壤肥力管理及国家政策等进行大会集中交流。8月17-21日, 参会人员围绕荒漠化防治与水资源利用与管理, 赴吐鲁番沙漠植物园、中科院塔克拉玛干沙漠研究站、新疆策勒荒漠生态系统野外科学观测研究站考察。

学会动态

中国地理学会2013年(西南地区)学术年会在昆明举行

2013年4月27-29日, 中国地理学会2013年(西南地区)学术年会在昆明举行。来自云南、四川、重庆、贵州、西藏、北京、山东、江苏、辽宁、黑龙江、宁夏等省市区的60余家研究与教学机构(高校、科研院所、中学、教科所、教研院、出版社、编辑部、媒体机构和公司等)的240余人出席了会议, 其中注册参会的研究生近70人、中学地理教师和地理教育管理人员60余人, 共收到论文(含摘要)近150篇。会议由中国地理学会主办, 中国地理学会西南地区代表处、云南大学国际河流与生态安全研究院和云南省地理学会承办, 四川省地理学会、重庆地理学会、贵州省地理学会、西藏自治区地理学会、中国地理学会山地分会和国际山地综合发展中心中国委员会协办。会议主题是“山地环境与生态文明建设”。

云南大学校长林文勋教授出席大会并致开幕词。中国地理学会秘书长张国友研究员、中国地理学会西南地区代表处挂靠单位一中科院水利部成都山地灾害与环境研究所所长邓伟研究员在会上致辞。西南各省(直辖市、自治区)地理学会理事长、副理事长、秘书长等领导出席了大会。云南大学国际河流与生态安全研究院院长、云南省地理学会理事长何大明教授主持开幕式并致欢迎词。开幕式上还举行了中国地理学会西南地区代表处成立仪式, 张国友秘书长向西南地区代表处第一届(2013-2016年)主任、副主任、秘书长、副秘书长、委员等颁发了聘书。

本次学术年会除特邀大会报告外, 还设立了4个专题(山地灾害与全球气候变化; 山地资源、山区经济与生态文明建设; 高原山地环境与陆疆安全; 三峡库区生态文明建设与区域发展)和2个论坛(基础地理教育、研究生), 共有98人作了口头发言, 其中包括44名研究生和19名基础地理教育工作者。会议内容丰富, 围绕前沿科学和区域特色问题展开了热烈而深入的讨论与会者一致认为, 本次会议取得了良好的学术交流和促进学科发展的效果, 对西

南地区地理科学发展具有极大的促进作用。

闭幕式上, 首先颁发了与会研究生和基础地理教育优秀论文奖, 共表彰研究生优秀论文18篇, 基础地理教育优秀论文12篇。随后, 中国地理学会副理事长崔鹏研究员、中国地理学会秘书长张国友研究员、云南省地理学会理事长何大明教授、西藏地理学会秘书长其美多吉教授、重庆市地理学会理事长王建力教授、贵州省地理学会常务副理事长熊康宁教授在闭幕式上致辞。会上, 还宣布了中国地理学会2015年学术年会——西南片区会议在贵州省举办。

媒体聚集

气候变化与青藏高原生态安全屏障——香山科学会议第450次学术讨论会综述

青藏高原的隆起改变了大气的动力和热力条件, 形成了独特的水热分配格局, 并导致高原及其周边区域大气环流格局的改变, 在气候变暖大背景下, 高原极端天气与气候事件频繁发生, 并影响中国东部的气候系统和引发旱涝等灾害。青藏高原发挥着重要的水源补给和水源涵养作用, 这里具有除南极和北极地区以外的世界第三大冰川群和面积最大、数量最多的高原湖泊群, 是长江、黄河等10多条亚洲河流的源区, 对中国甚至亚洲水资源安全起着重要的保障作用。青藏高原具有独特的生态系统类型和特有的野生动植物种类, 是世界上山地生物物种最主要的分化与形成中心, 这里的生物既具有遗传基因的多样性, 也具有特有性。

青藏高原拥有6.2万多平方公里的森林和150多万平方公里的天然草地, 是重要的碳汇所在。此外, 青藏高原140多万平方公里的多年冻土中封存着大量的温室气体, 使得地表过程变化直接关系着对碳的吸收与排放, 并影响到大气温室气体的含量。因此, 青藏高原成为了我国重要的生态安全屏障。在全球变暖的大背景下, 青藏高原的地表过程(冰川、冻土、湖泊、湿地、生态系统)变化直接影响着其环境与生态安全屏障效用的发挥与区域经济社会发展。由全球变暖导致的气候变化不仅引起多种地表过程发生变化, 这些变化也对区域的灾害与经济发展产生影响, 在更大尺度上影响着青藏高原的环境与生态安全屏障功能效用。

为厘清全球变暖条件下青藏高原地表环境与气候极端事件对周边区域环境的影响, 阐明青藏高原近代地表过程变化与区域水循环和相关灾害过程的内在联系, 分析青藏高原生物多样性现状与气候变化的关系, 提出在全球变暖条件下保持和发挥青藏高原生态安全屏障功能的对策和措施, 香山科学会议于2012年12月11-13日在北京召开了以“气候变化与青藏高原生态安全屏障”为主题的学术讨论会。会议聘请中科院地理科学与资源所孙鸿烈研究员、中科院地理科学与资源所郑度研究员、中科院青藏高原所姚檀栋研究员、中国气象局秦大河研究员担任执行主席, 来自科研院所、高等院校和管理部门的40多位专家学者出席了会议, 与会专家围绕(1)青藏高原地表条件变化与极端环境事件;(2)青藏高原冰冻圈过程对区域水循环和生态条件变化的影响;(3)青藏高原地表覆被变化对气候变化的响应以及影响和(4)青藏高原主要生态系统碳源/碳汇功能作用评估与对策等中心议题进行了广泛交流和深入讨论, 并提出了具体建议。

国际山地综合发展中心中国委员会致力于加强与南亚国家的科技交流, 促进成员机构的科技发展。

国际山地综合发展中心中国委员会秘书处
地址: 四川省成都市人民南路四段九号
电话: 86-28-85237507
传真: 86-28-85222258
邮编: 610041
电子邮箱: pinghuahu@imde.ac.cn