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Research

Hydrological Inspection of Lakes in the Nagqu River Basin

'Research on the Response of the Multi-circle Action Process to Climate Change on the Tibetan Plateau' is the second topic of the National 973 Project, which studies climate systems on the Tibetan Plateau and their influences in East Asia. The hydrological survey and monitoring of the Nagqu river basin is an important part of this project, and was implemented successfully in 2011.

On 9 May 2011, after several days of preparatory work in Lhasa, Professor Tian Lide, Project Director of the second topic, led a group of nine individuals to Nagqu on a hydrology expedition to the Nagqu area. The researchers went to Nagqu, Amdo, and Baingoin before returning to Lhasa through Nagqu. Researchers investigated the sampling work on the precipitation, river water, lake water, and groundwater in the Nagqu river basin, and made observations along the CuoNa, DaRuCuo, BaMaCuo, and PengCuo lakes. In addition, the expedition monitored the changes in water level at the Nagqu hydrological station. The project carried out the following activities:

- collection of stable isotope samples along the river, and obtaining water samples from CuoNa Lake in the past year;
- horizontal and vertical profile sample collection in CuoNa, DaRuCuo, and BaMuCuo Lakes;
- establishment of a precipitation collection site at CuoNa Lake, and observation of precipitation there;
- measurement of the water level of the banks of four lakes by Starfire differential GPS, providing accurate absolute altitude data for monitoring the lakes' water level change.
- The most important result was the collection of water level and temperature data at the Nagqu hydrological station over the past one and a half years, which has provided a solid foundation for studying the changes in water resources and in the water cycle process in the Nagqu river basin.

Joint Investigation Carried Out in Loess Plateau and the Desert/ Loess Boundary Belt

From 13 to 28 May 2011, Professor Lai Zhongping, member of the Hundred Talents Programme at the Qinghai Institute of Salt Lakes, Chinese Academy of Sciences (CAS), led a research group on joint field investigations in the Loess Plateau, Mu Us Desert, and the Tenggeli desert region. Professor Andrew Murray from Denmark's Risoe National Laboratory, Dr Jan-Peter Buylaert, Associate Professor Helen Roberts from the University of Wales, and her doctoral student Melissa Jackson also participated in this investigation. Associate Professor Wang Haibin from Lanzhou University and doctoral candidate Ou Xianjiao were also invited to take part.

A joint investigation carried out in the loess plateau and the desert loess boundary belt

This joint investigation mainly focused on a series of scientific issues, such as luminescence chronology and the environmental significance of the loess-paleosol sequence in the loess plateau; environmental change in the desert/loess boundary belt; and the advance and retrogress of the deserts. The sampling of standard materials in the Luochuan area has been successful as a result of this investigation.

Lai Zhongping, Andrew Murray, and Helen Roberts proposed that optical stimulated luminescence standard materials libraries be established in the Chinese Loess Section as well as recommending communication and cooperation with domestic and foreign counterparts on relevant research.

Lai Zhongping developed an agreement with Andrew Murray and Helen Roberts on aspects of future cooperation, including exchange visits.

Coordinated Experiment of Aerial Remote Sensing Synchronous with In Situ Observation on the Tibetan Plateau

A coordinated experiment of aerial remote sensing synchronous with in situ observation was recently accomplished on the Tibetan Plateau, thanks to the support of the National 973 Project, which studies climate systems on the Tibetan Plateau and their influences on East Asia.

The experiment was accomplished in mid-August. Three sensors were attached to a plane, including Light Detection and Ranging (LiDAR), Intelligent Spectral Imaging System (ISIS), and infrared imaging. Data as large as 200 gigabytes was acquired. The aerial remote sensing flights flew at a height of 3000 metres above ground level, with LiDAR density reaching 1 point per m^2, a ground resolution of ISIS as high as 1.8 m, and the resolution of infrared imaging at 4 m. Such data was synchronous or quasi-synchronous, thus comparable with Landsat-5 and SPOT-5.

Synchronous aerial remote sensing and in situ observation experiment on the Tibetan Plateau

At the same time, in situ observation was carried out at the Nagqu observation and research station for an alpine cold environment (Nagqu station) and the Nam Co Observation and Research Station for Multisphere Interactions (NAMORS); while in situ observation for climate change was carried out at the Damxung observation and research station for climate changes (Damxung station), the Southeast Tibet Observation and Research Station for the Alpine Environment (SETORS), and the Qomolangma Atmospheric and Environmental Observation and Research Station (QOMORS). Meanwhile, wind profiler radar (WPR) atmospheric boundary layer observation was conducted synchronously or quasi-synchronously at Nagqu station and QOMORS, while GPS balloon aerial-sonde tropospheric atmospheric monitoring was conducted at Nagqu station and SETORS. In addition, observation of the heterogeneity of land surface by mobile meteorological stations was carried out at Nagqu station; spatial distribution of soil humidity was tested at the Nagqu experiment field; and ground quadrat observation and geographically coordinated observation were carried out at Yambajing, Damxung, Nam Co, and Nagqu.

Such an experiment, where synchronous aerial remote sensing is carried out with in situ observation, is the first of its kind on the Tibetan Plateau, and aims to provide a land-air interaction database of high temporal resolution and of good quality to enable the study of climate changes on the Tibetan Plateau and mechanisms and approaches of sensitive factors in global climate changes. It also allows the detailed description of key factors in land-surface processes on the Plateau and the verification of remote sensing interpretations.

Initial Meeting of Research Project Supported by the State Science and Technology Programme of the Twelfth Five — Year Plan

An initial meeting to discuss 'The Evaluation Technology of Influence on the Regional Key Ecologically Sensitive Objects Resulting from the Base Construction of Hydroelectric Energy' was hosted by Yunnan University on 28 June 2011. This is the first topic of 'The Evaluation Technology and Demonstration of Influence on the Ecological Security in the Southwest Region, Resulting from the Base Construction of Hydroelectric Energy', which is part of the research subject of the State Science and Technology Support Programme. A total of 25 representatives participated, from the Asian International Rivers Center; the Institute of Botany, CAS; the School of Resource Environment and Earth Sciences; and the Hydrochina Kunming Engineering Corporation.

Research on technology for evaluating ecologically sensitive objects resulting from hydroelectric construction

The meeting was hosted by Professor HE Daming, Director of the Asian International Rivers Center and topic leader. Professor He introduced the content and goal of the research, the division of tasks and staff, and how work would be coordinated between the first and other topics. The communication about how to implement relevant content in the first topic was conducted by Professor Hu Jinming, who is in charge of the first topic, Professor-Senior Engineer Zhang Rong from the Planning and Environmental Protection Department of Hydrochina Kunming Engineering Corporation, Professor Ou Xiaokun, Director of the Institute of Botany, CAS, and Professor Cao Jie, Vice President of the School of Resource Environment and Earth Sciences.

The present topic is the seventh topic of 'The constructing technology and demonstration of ecological security barrier (first stage) in the Southwest area', which is the first project of the research subject of the State Science and Technology Support Programme of the Twelfth Five–Year Plan approved by the Ministry of Science and Technology. This topic is being put into practice by Yunnan University, Hydrochina Corporation, China Institute of Water Resource and Hydropower Research, Tsinghua University, and Hydrochina Kunming Engineering Corporation. The research region relates to seven provinces (regions), and concerns the technology development and integration as follows:

- application demonstration of important national hydroelectric engineering technology in the Southwest region;
- the strategic target of constructing an ecological security barrier in the southwest and security protection of energy resources;
- evaluation technology on the suitability of hydroelectric exploration and evaluation technology on the synthetic influence of hydroelectric energy base construction;
- the integrated control of ecological security on impact of cascade hydropower development;
- the technology and demonstration of ecological restoration;
- ecological risk evaluation technology and risk zonation of the base construction of hydroelectric energy.

This research is expected to provide direct scientific support for the development of the energy industry in Yunnan Province and the ecological conservation of the drainage basin. As a consequence, it will serve national energy resource security and aspects of the construction of an ecological security barrier in the Southwest region, as well as supporting issues concerning cross-border ecological security that face Southeast Asia and South Asia, in addition to hydroelectric energy resource exploration abroad.

CAS Launches New Drive for Western Development

A new project, 'Monitoring, Assessment and Key Technology Demonstration of the Ecological Security Barrier of the Tibetan Plateau', supported by the action-plan of the Chinese Academy of Sciences (CAS) for Western Development, was launched in Lhasa, Tibet on 8 August 2011.

The new project is being undertaken by the Institute of Mountain Hazards and Environment (IMHE, CAS). IMHE Director, Deng Wei, pledged to achieve high-quality completion of the project that would contribute to science and technological advancement, socioeconomic development, and ecological environmental protection in the Tibetan region. Topics addressed by the project include:

- an approach for estimating background values of the ecological environment of the plateau ecosystem;
- technology for monitoring the ecological security barrier and simulation of the ecological functions of the plateau;
- monitoring and evaluation of the impact of the Natural Forest Protection Project; and the project of returning grazing land to grass;
- comprehensive evaluation platform; for ecological security effects of the plateau.

CAS Launches new drive for western development

Chief Scientist of the project Cheng Genwei stated that, "The project will conduct assessment of the ecological security barrier using the methods of ground monitoring, remote sensing, and model simulation". In addition, Feng Renguo, Deputy Director-General of the Bureau of Science and Technology for Resource and Environment, CAS, commented that, "The new drive of CAS meets the national strategic need and is of great practical significance for the ecological security barrier of Tibet". He emphasised that the project should prioritise its application of its results to bring benefits for Tibet.

Project approval conference

Approval Conference for the Project 'Dynamic Process of Cryosphere and the Mechanism of its Influence on Climate, Hydrology, Ecology, and Adaptation Strategy'

The approval conference of 'Dynamic Process of Cryosphere and its Influence Mechanism on Climate, Hydrology, Ecology and Adaptation ', a project of the national key base research development plan (the National 973 Project), was held in Lanzhou 29–30 August 2011. Professor Qin Dahe, Chief Scientist of the project, hosted the conference. Attending the conference were experts from the approval panel of the 973 Project, as well as from the project's resource and environment advisory group. Also in attendance were managing experts from CAS as well as staff from the Department of Basic Research of the Ministry of Science and Technology.

The project began formally in September 2007 in the Cold and Arid Regions Environment and Engineering Research Institute, CAS. It focuses on three research areas, including change mechanisms of the cryosphere, the influence of cryosphere change, and adaptation strategies.

The project aimed to further reveal the internal mechanism of the impact of cryosphere change on water resources, ecology and climate; to find out the degree to which cryosphere change influences ecology and the environment; to comprehensively evaluate how susceptible the cryosphere is to change; and to investigate approaches to adaptation. It addressed national strategic needs and put forward a scientific strategy for coping with cryosphere change in the future, providing a scientific foundation to guarantee the sustainable development of the regions of China affected by the cryosphere.

The individuals in charge of the project's research topics made reports to the participating experts about the development and main achievements of the research. Subjects included the following:

- the response mechanism of typical glaciers of different properties, and the scale of climate change;
- the influence of glacier change on international rivers in the himalayan mountainous areas;
- vulnerability evaluation and strategy for adaptation to cryosphere change;
- frozen soil and snow change and its ecological effects in the source region of rivers;
- mechanism of the influence of snow and frozen soil on climate change in China;
- spatial-temporal features of cryosphere change over the last 50 years and assessment of future change.

Cooperation

CAS Delegation Visits Nepal

At the invitation of Dr Surya Laxmi Maskey, President of Women in Science and Technology (WIST), Dr Fang Xin headed a delegation visiting Nepal from 29 April to 3 May 2011. Dr Fang Xin is a member of the Chinese Academy of Sciences (CAS) and President of the Organization for Women in Science for the Developing World (OWSDW).

It was the first visit to a women's organisation in a neighbouring country since Dr Fang Xin became President of OWSDW. The visit aimed to enhance communication with other women's organisations and promote cooperation among the national chapters of OWSDW. The delegation visited WIST and ICIMOD.

Dr Fang Xin introduced CAS, and talked about the application process for fellowships of CAS-OWSDW and CAS-TWAS (the Academy of Sciences for the Developing

CAS delegation visits Nepal

World). Dr Surya Laxmi Maskey outlined WIST's work in Nepal. The two partners touched upon many concerns and reached a common consensus on participation in OWSDW, developing scientific research, and technology training.

Dr Andreas Schild was present at the meetings. Dr Madhav Karki, Deputy Director General of ICIMOD, and department leaders introduced ICIMOD's current work. Dr Fang Xin expressed his appreciation to ICIMOD for paying much attention to cooperation with China over the years and said that it would continue. After the meeting the delegation visited ICIMOD's Geographic Information Systems unit.The Embassy of the People's Republic of China in Nepal gave valuable support during the visit.

ISAS Co-sponsors International Conference in Pakistan

The Institute of South Asian Studies at Sichuan University (ISAS, SCU), the Institute of Policy Studies, Islamabad (IPS), and the Institute of South Asian Studies at Yunnan Academy of Social Sciences (ISAS, YASS) co-sponsored an international conference, 'Sixty Years of Pak-China Relations: Landmarks, Trends and Approaches', 11–12 April 2011, in Islamabad. Taking part were over twenty representatives from IPS; the Institute of Strategic Studies, Islamabad (ISSI); Peshawar University; International Islamic University; Islamabad Council of World Affairs; ISAS (SCU); ISAS (YASS); China West Normal University; the Center for South Asia-West China Cooperation and Development Studies (SAWCCAD); the Guangming Daily; and an audience of some 40 people. Speakers included Pakistan Senate Chairman and Acting President HE Farook H Naek; former Secretary General of Foreign Affairs, Mr Akram Zaki; former Pakistani ambassadors; and Counsellor of the Chinese Embassy, Huang Xilian. Acting President of Pakistan HE Farook H Naek met with Prof Li Tao and other Chinese scholars before the concluding session, and delivered the closing speech.

Preceded by five joint conferences on China-Pakistan relations previously held in Islamabad in 2005, Chengdu in 2006, Islamabad in 2007, Kunming in 2008, and Chengdu in 2009, this conference is the latest outcome of trilateral cooperation between IPS, ISAS (SCU), and ISAS (YASS).

During the two-day conference, issues such as the Afghan situation, regional security, Indo-US relations, the Middle East situation, as well as Sino-Pakistan cooperation in economy, trade, investment, and energy were discussed in two fruitful sessions for security, diplomacy, and economic development. ISAS (SCU) Executive Director Professor Li Tao and SAWCCAD Director Dr Xie Daigang made presentations on 'The Significance of Research on Tibetan Elements in Baltistan, and Some Considerations on Sino-Pakistani Relations' and 'Prospects for Sino-Pakistan Economic Cooperation' respectively. Dr Zeng Xiangyu also made a presentation entitled 'Afghanistan and Regional Security-Implications for China'. Other presenters included former Pakistani Secretary General of Foreign Affairs, Mr Akram Zaki; former Pakistani Ambassador to Afghanistan, Rustam Shah Mohmand; IPS Director, General Khalid Rahman; IPS Associate Cdr (r) Azhar Ahmad; IPS Associate, Zafar ul Hasan Almas; IPS Associate, Aleema Sohail, YASS Vice President, Professor Ren Jia; ISAS (YASS) Director, Prof Chen Lijun; and China West Normal University Vice President, Professor LiJian.

In his concluding remarks, Pakistan Senate Chairman and Acting President, HE Farook H Naek, praised the conference as a contribution to Sino-Pakistan relations. He stated his belief that the unique relationship between China and Pakistan is of great significance, where brotherly neighbours always help each other in times of hardship, and said that even bigger progress will be made in the coming decades. IPS will further enhance its cooperation with partners, and strive for an even more productive performance of tri-lateral and other cooperation.

The Chinese Scholar Delegation also visited and held intensive discussions at Quaid-i-Azam University, the Islamabad Council on World Affairs, ISSI, and the Rawalpindi Chamber of Commerce and Industry.

Academic Activities

Sino-German Cooperation on Tibetan Plateau Research on Track for Sustainable Development

In the recently concluded 7th Sino-German Workshop on Tibetan Plateau Research in Hamburg, collaboration between Chinese and German scientists in the study of the Tibetan Plateau entered a new phase of sustainable development. Research achievements in the last year-and-a-half were presented, together with new ideas and approaches in unraveling the mystery of Tibetan Plateau uplift and Asian monsoon evolution. Also noteworthy were the training programmes for young scientists in both countries, which had been applauded by distinguished reviewers.

Held from 3 to 5 March 2011, the workshop contained over 40 oral presentations and approximately 40 poster presentations, sharing academic achievement from the joint expedition and sample analysis. About 130 scientists from Germany and other European countries attended the workshop, including eleven scientists from the Institute of Tibetan Plateau (ITP), one from INSGRR, and one from Yunnan Normal University as the Chinese delegation.

The Third Pole Environment (TPE) programme was introduced at the workshop, gaining widespread attention and support. Participating scientists were inspired and expressed their willingness to be involved. TiP (Tibetan Plateau: Formation-Climate-Ecosystems) / TiPex (Central Asia-Monsoon Dynamics and Geo-ecosystems) will join TPE in this year's Fall Meeting of the American Geophysical Union (AGU). Academic exchange between Chinese and German scientists will not only boost new ideas in research, but will also further discussion on the joint promotion of the research internationally.

Both Chinese and German scientists deemed the training of young scientists worth continuing. A guest scientists' programme was generally agreed upon, although the details need further work. The idea of summer school for young scientists was also touched upon, with the thought of integrating the training of young scientists in the Third Pole region within the summer school programme. Some participating scientists from Germany agreed to contribute to regional talent cultivation in the Third Pole.

The seventh workshop was sponsored by the TiP project, a priority project funded by the German Research Foundation (Deutsche Forschungsgemeinschaft, DFG). The next workshop will be held in China at some time in 2012. It was also announced that the 28th Himalaya-Karakorum-Tibet (HKT) Symposium will join the 6th International Symposium on Tibetan Plateau Research to witness a joint conference in Tuebingen University, Germany, in 2013.

Workshop on 'Response and Application of the Ecological and Economic System to Climate Change on the Tibetan Plateau'

With the support of the National 973 Project, which studies climate systems on the Tibetan Plateau and their influences on East Asia, a workshop entitled 'Response and Application of the Ecological and Economic System to Climate Change on the Tibetan Plateau' was held in Beijing 25-26 March 2011.

In attendance were Academician Zheng Du; Researcher Lin Zhenyao; Lv Canghe from the Institute of Geographic Sciences and Natural Resource Research (IGSNRR), CAS; Professor Cai Yunlong from Peking University; Researcher Ma Yaoming from ITP, CAS; and approximately 30 other scientists.

Zheng Du presided over the workshop. Researcher Zhang Yili from IGSNRR introduced the overall framework, as well as the aims and steps of the project. The leaders of each sub-project reported research progress in the following areas:

- the impact and response of climate change on plant biodiversity on theTibetan Plateau;
- the response mechanism of alpine grassland and alpine wetland on climate change;
- the response process and simulation of typical ecological system on climate change on Tibetan Plateau;
- the response of land cover to climate change and human activities on typical areas of the Tibetan Plateau;
- the response and adaptation of agricultural and forest ecosystems to climate change on the Tibetan Plateau;

Workshop on 'Response and Application of the Ecological and Economic System to the Climate Change'

- the impact of key ecological building and environmental protection measures on regional grassland ecosystems;
- the impact of the operation of the Qinghai-Tibet Railway on the adaptation to regional climate change.

Experts exchanged their ideas with participants, and put forward some constructive suggestions. Participants were able to hold extensive and meaningful communication with the different sub-projects, and further defined the objectives and details of the project as a whole. It is hoped that this will push the project implementation forward.

Workshop on 'Change and Development of China's Mountain Environment'

Workshop on 'Change and Development of China's Mountain Environment'

A workshop, 'Change and Development of China's Mountain Environment', was held in Yunnan Normal University (YNU) in Kunming, capital of Yunnan Province, from 24 to 30 April 2011.

The workshop was co-hosted by YNU and the Geographical Society of China with the aim of advancing mountain science development and building capacity and skills. Professor Ming Qingzhong from YNU held the chair at the workshop.

Approximately 60 people attended the workshop, to exchange views on a range of topics. These included the formation and ecology of mountainous rivers, the formation and prevention of mountain disasters, global climate change and its impact on mountain environment change, exploitation and protection of mountain resources, the sustainable development of mountainous areas, and regional poverty alleviation.

YNU Vice President, Li Songlin, introduced YNU's glorious history, claiming that YNU would continue efforts in mountain research. Li, together with the Deputy Director of the Institute of Mountain Hazards and Environment, CAS, confirmed the significance of mountain research for the socioeconomic development of China.

After the workshop, the attendees went on field inspections in the southwest mountainous regions of Baoshan City and Dali City of Yunnan Province.

The 3rd Sino-US Short Course in Water Resource Management

The 3rd Sino-US Short Course in Water Resource Management was held in Yunnan from 6 to 17 June 2011.

The course was organised by the Asian International Rivers Center and the University of Miami, USA. The main activities of the course were lectures, discussions, and field trips.

Focusing on water management, seven professors from the University of Miami and Yunnan University gave lectures on the objectives of water resource exploitation, the environmental impact assessment of water resources, environmental law, transboundary water resource exploitation, and the challenges related to these.

During the course, participants went on a field inspection to Dianchi Lake, Wujiatang Wetland, Baoxianghe Wetland, and the upper reaches of the Lancang and Jinsha rivers.

Sixteen students from University of Miami and Yunnan University attended the course.

Second International Workshop on the Asian Dryland Model Inter-comparison Project Held in Lanzhou

The Second International Workshop on the Asian Dryland Model Inter-comparison Project was held in Lanzhou from 13 to 15 July 2011. This workshop was jointly sponsored by the Asia-Pacific Network for Global Change Research (APN); the Monsoon Asia Integrated Regional Study (MAIRS); the Laboratory of Cryosphere and Global Changes, Cold and Arid Regions Environmental and Engineering Research Institute, CAS; and the Ministry of Education, Culture, Sports, Science, and Technology in Japan (MEXT, Japan). Participants from China, Japan, Mongolia, the Republic of Korea, and the USA attended the workshop.

Researcher Ren Wenjun, Deputy Director of the Laboratory of Cryosphere and Global Changes, introduced the work of his laboratory. Experts reported the advances in research on land surface processes in arid regions. Academic exchange followed, in the areas of land surface model performance in arid regions, comparisons of land surface process models in different arid regions, and the application of different surface models.

This workshop played an important role in promoting the application of land surface process models in arid regions and enhancing understanding of land surface processes in arid regions, especially in the arid and semi-arid regions of China.

Sino-US Geological Microbiology Workshop on Research on Tibetan Lake Ecology, Xining

The Sino-US Geological Microbiology workshop, 'Research on Tibetan Lake Ecology', was held from 1 to 5 August 2011 in Xining, China.

The event, attended by 20 participants, was jointly supported by the Natural Science Foundation of China (NSFC) and the National Science Foundation of American (NSFA), and was hosted by ISL Research, Professor Lai Zhongping and Professor Dong Hailiang from the University of Miami.

Chinese and US scientists in related fields discussed ecological issues of the plateau, including microbiology and ecology in this extreme environment. Scientists examined some scientific problems for future cooperative research and the feasibility of its preliminary implementation. The workshop was also supported by ISL, the China University of Geosciences (CUG), CAS Key Laboratory of Salt Lakes Resources and Chemistry, and the State Key Laboratory of Biogeology and Environmental Geology.

The 3rd Sino-US short course in water resource management held in Yunnan

Seminar on Decision Support and Methodology for Ecosystem Management, Sichuan University

A seminar entitled, 'Decision Support and Methodology for Ecosystem Management', was held in Sichuan University from 8 to 10 August 2011.

This seminar was hosted by ICIMOD and focused on the Decision Support System (DSS) for natural reserve areas developed by ICIMOD for the Hindu Kush-Himalaya region.

Dr Sudip Pradhan and Dr Hammad Gilani, the seminar's two main speakers, introduced the background of DSS based on Geological Information System (GIS) development. They discussed the characteristics and processing of DSS, such as database construction, spatial analysis and model builders, and systematically introduced Cmap and Simile software. The seminar also provided practical experience for the participants.

Using GIS, ICIMOD is committed to improving sustainable development in the Hindu Kush-Himalayan region. DSS is an excellent software platform targeted for Nepal's national parks. Participants gained a full understanding of the application of DSS in natural reserve areas and national parks. In addition, ICIMOD hopes to establish a strategic partnership in China to achieve better application of DSS in the natural reserve areas of China.

Participants from the Jiuzhaigou, Heizhugou, and Emei Mountain Natural Reserve areas and associated universities and institutes attended the seminar.

Biodiversity Trainee Workshop, Urumqi

A Biodiversity Trainee Workshop was held in Urumqi on 15 August 2011.

With the aim of ensuring the implementation of the Strategic Action Plan for Biodiversity Protection in China, which passed at the 126th State Council Meeting, the trainee workshop also aimed to enhance the biodiversity conservation of Xinjiang, to raise the level of biodiversity protection, and perfect methods of protection.

Experts introduced the progress of the Strategic Action Plan for Biodiversity Protection, the effective management of natural reserve areas, and the conservation and character of biodiversity in Xinjiang. After group discussion, participants put forward suggestions for the management of biodiversity protection.

This trainee workshop was organised by the China Biodiversity Conservation and Green Development Foundation, and was co-organised by the Xinjiang Institute of Ecology, the Geography Chinese Academy of Sciences, and the Forestry Department and Environmental Protection Department of the Xinjiang Uygur Autonomous Region of China. Over 100 participants from 38 natural reserve areas of Xinjiang attended the trainee course.

Preparation in Iceland for the 3rd Third Pole Environment Workshop

In preparation for the 3rd Third Pole Environment (TPE) workshop in Reykjavik, Iceland, from 29 August to 1 September 2011 (organised jointly by ITP, CAS and the University of Iceland and sponsored by the Chinese Academy of Sciences and the President of Iceland), the Chair of the Local Organising Committee, Dr Dagfinnur Sveinbjorsson, invited Professor Yao Tandong, TPE Co-chair, to Iceland for a detailed discussion, 14–15 July 2011.

Professor Yao and Dr Sveinbjorsson reviewed a preliminary agenda for the workshop as well as the themes for group discussions, revolving around climate, glaciers, lakes and rivers, and the ecosystem. They also discussed the participants' list and the voluntary post-workshop excursion.

Meetings

Consultation Meeting on the Work Plan for the Second Five-Year Period of CNICIMOD

A Consultation Meeting, 'Work Plan for the Second Five-Year Period of CNICIMOD', was held in Beijing on 15 May 2011.

Mr Qiu Huasheng, Vice Director of the International Cooperation Bureau, CAS; Mr Wang Zhenyu, Director of International Organization Division of International Cooperation Bureau, CAS; and Mr Huang Tieqing, Director of the Division of Land and Remote Sensing, Bureau of Science and Technology for Resources and the Environment, CAS, attended the meeting. Special experts Dr Zhang Yili and Shen Lei were invited to attend the meeting, which was hosted by the Secretariat of the Chinese Committee on ICIMOD.

Preparation for the 3rd TPE Workshop

Secretary General of CNICIMOD, Dr Deng Wei, presided over the meeting. He reported to attendees on the work processes in the aspects of organisation building, daily work, and project cooperation over the past five years since the inception of CNICIMOD. All attendees appreciated that as a young organisation with international characteristics, CNICIMOD has accomplished a lot of constructive work over the past five years and has played an important role in connecting with ICIMOD to promote multilateral cooperation in the Hindu Kush-Himalayan region.

Dr Deng Wei introduced the work plan of CNICIMOD and some key work and measures to be accomplished over the coming five years and explained that in response to ICIMOD's develop strategy, CNICIMOD will assemble more scientists for the collaboration in the region. After discussing the work plan, all experts made constructive suggestions, and emphasised that CNICIMOD's work should focus on some significant issues with obvious outputs to extend its influence and leading role.

Over the next five years, CNICIMOD will mobilise more scientists to push forward regional multilateral cooperation serving ecological security and environmental conservation, to make positive contributions to the sustainable development of the Hindu Kush-Himalaya regions.

China-ICIMOD Day, Beijing

ICIMOD and its Chinese partners organised a workshop, 'China-ICIMOD Day' on 7-8 July 2011.

The workshop was held to further cooperation in joint research programmes between ICIMOD and its Chinese partners in transboundary regions, and to enhance a sense of ownership among ICIMOD's member countries.

Delegates from both sides gave an overview of their joint research programmes, reflecting on the challenges involved in these programmes and putting forward suggestions for

ICIMOD-China Day took place in Beijing

future collaborative projects. Professor Wei Fangqiang, Deputy Secretary from the Chinese Committee on ICIMOD (CNICIMOD), introduced the research progress of the programme, 'Geo-Surface Processes and Regional Adaptation to Climate Change in the Himalaya Region', which is the Key External Cooperation Programme of the Chinese Academy of Sciences (CAS), and presented a plan draft for another programme, 'Comparative Research on Environmental Response and Adaptation to Climate Change between South and North Himalayas'.

During the workshop, Dr Andreas Schild, Director General of ICIMOD, issued academician Sun Honglie, ICIMOD's ex-board member, with a certificate to honour his contributions to ICIMOD.

Presided over by CAS academician Yao Tandong, the workshop attracted about 40 attendees from CAS, ICIMOD and other related institutes and universities.

The Chinese Committee on ICIMOD (CNICIMOD) hosted the workshop.

2011 Annual Academic Symposium of the China Society of Natural Resources Held in Urumqi

With the theme of using the advantage of scientific recourses and ensuring innovation in the development of western China, the 2011 Annual Academic Symposium of the China Society of Natural Resources (CSNR) was held in Urumqi from 25 to 27 July 2011. The symposium was attended by 350 delegates from 100 institutions, and was hosted by the China Society of Natural Resources and the Xinjiang Society of Natural Resources. It was organised by the Xinjiang Institute of Ecology and Geography, the Chinese Academy of Sciences (XIEG, CAS), and the Xinjiang Association of Science and Technology (XAST).

Dr Chen Xi, Director of XIEG and Vice Council Chairman of CSNR, presided over the opening ceremony. Mr Liu Changming and Zheng Du, academician of CAS; Wei Shenggui, and Vice Chairman of XAST gave the address at the opening ceremony. Mr Li Hongbo, Vice Director of Xinjiang Uygur Autonomous Region Development and Reform Commission; Professor Cheng Shengkui, Deputy Council Chairman; Professor Zheng Lingzhi, Vice Council Chairman; and Professor Shen Lei, Secretary General of CSNR, presented the ceremony.

Mr Liu Jiyuan, Council Chairman of CSNR, extended his sincere greetings in his opening speech, welcoming all attendees and thanking the organisers representing CSNR. Five experts and leaders were invited to make keynote reports entitled respectively, 'Great-leap-forward Development Strategy and Key Works of Xinjiang under the New Situation', 'Challenges of Xinjiang Cultivation of Water, Soil and Ecological Management', 'Strategic Transformation on Western Development', 'Watershed Science and Water Resource Management', and 'Development Status of Karamay Petroleum and Petrochemical Industry and Strategy for Building the World Petroleum City'.

Eight sessions and four forums were set up during the symposium. Academic exchange and discussion revealed high level scientific achievements and opinions.

The delegates indicated that Xinjiang is a typical undeveloped region with the characteristics of abundant natural resources, a lagging economy, a vulnerable ecology and sensitive environment, a complicated society, and an urgency to acquire wealth. This annual meeting held in Xinjiang will facilitate the discovery of prominent problems and will put forward suggestions to local and central government to provide important science and technology support for the cultivation and utilisation of western resources as well as the social and economic development of Xinjiang and the whole country.

Mr Shen Lei presided over the closing ceremony. After the session summaries, Mr Cheng Shengkui summarised the symposium. A Youth Excellent Paper Award and a volunteer work station tablet were issued during the closing ceremony.

The third working conference of the sixth session of CSNR was held during the symposium, in which the current and next steps of the work plan were discussed. Some decisions were approved, such as the scientific achievement award on natural resources, and the advanced unit of CSNR. Mr Wu Zhifeng, Director of the School of Geographical Sciences of Guangzhou University, made an application to hold the annual symposium of CSNR in 2012, which was subsequently approved by a vote.

Focus

Seven Ages of the PhD

1980s: The age of internationalism, Yao Tandong
Head of the Institute of Tibetan Plateau Research, Beijing
PhD in Glaciology (Institute of Geography, Beijing, 1986)

I graduated from Lanzhou University in China's Gansu Province in 1978. At that time, the postgraduate system in China was immature. During the Cultural Revolution (1966-1976), the whole education system was broken, and it was only after 1978 that the degree system was restored. There were probably only a few hundred PhD students in China. I was one of the first to study for a Master's degree in Physical Geography at Lanzhou and because no institution in my province could grant a PhD, I had to travel to Beijing to study at the Institute of Geography.

The prestigious institute was part of the Chinese Academy of Sciences. In the 1980s, science was held in the highest esteem in China, and you had to get the highest marks in very strict exams to get into a PhD programme. However, there were still few senior scientists who were qualified by the Chinese government to supervise PhD students. I was lucky in that my PhD adviser was the famous Chinese glaciologist Shi Yafeng.

It was also popular at that time to study abroad. I passed all my exams to teach English as a foreign language and planned to go to the United States, but my advisor asked me to stay in China. He said I could go abroad for short courses, but he wanted me to do most of my research in China. It turned out to be the right decision for me because I spent a whole month with him at the Glacier No. 1 research station in the Tianshan mountains in northwest China. This glacier is famous worldwide with scientists and tourists, and it is shrinking at an accelerating rate. It supplies water to the city of Urumqi and is the world's closest glacier to a metropolis.

Shi Yafeng was already in his sixties, but very dedicated to his work – a dedication that inspired me for the rest of my career. During the month we spent on the glacier, he worked for every possible hour on the water-resource problem that was the subject of my PhD. While I was on the glacier I also got to know the famous glaciologist Lonnie Thompson from Ohio State University in Columbus. He was just starting his ice-core work in China and that meeting shaped the rest of my career. After I graduated in 1986, I spent three years abroad working with ice-core scientists in Grenoble, France, and in the United States.

I returned to China in 1989 and initiated ice-core studies on the Tibetan plateau. I have now supervised more than 25 PhD students in the same field, although the country's great passion for science has been replaced by a national passion for business.

I was lucky enough to have a good advisor and excellent collaborators, but I had to find collaborators outside China because there were so few scientists to work with at home. I always encourage my students to spend some time abroad. I learned important new fieldwork and lab techniques in the two months I spent in Alaska during my PhD. Scientifically, we still have a gap in China. Happily, almost all the students from my institute have returned to China from overseas, so everyone benefits.

Source: *Nature* 472: 283–286 (21 April 2011)

Guiyang Science Forum on Ecological Civilization

The Guiyang Science Forum on Ecological Civilization was held on 15 July 2011. More than 200 participants made presentations and discussions, expressing their opinions on extreme climate and disaster prevention, ecology protection, and sustainable development.

Mr Zhai Panmao, Vice Director of the Chinese Academy of Meteorological Science said, "Since the beginning of the 1990s, annual economic loss caused by meteorological hazards has increased year by year, from 200 billion up to 500 billion at present." He indicated that the extreme climate is a most serious challenge while humankind adapts to a warming climate.

Mr Qin Dahe, academician at CAS, stated that with climate change, rising sea levels will threaten the economically

developed coastal region, while a shortage of water resources will be more serious, instability of agricultural production will increase, biodiversity will be hurt, and the extreme climate will induce more serious natural disasters, especially incidents that are seldom in frequency, but are high intensity and of extended duration.

Dr Deng Wei, Director of the Institute of Mountain Hazards and Environment, CAS, said that abnormal humidity effects obvious ecological changes on species distribution, types, and patterns in mountain areas, while biodiversity shows a decreasing trend, especially in undeveloped regions.

Addressing how to deal with disasters caused by climate change, Mr Qin Dahe expressed the need to reduce greenhouse gas emissions and to regulate human activities. On the other hand, given the situation of increasing disasters induced by climate change, a response mechanism should be set up to adapt to the impact of climate change to mitigate losses from disasters.

Source: http://gz.people.com.cn/GB/194827/15171316.html

ICIMOD New Director General – Dr David Molden

The Chair of the ICIMOD Board of Governors, Mr Tishya Chatterjee, announced at the Board of Governors meeting held on 28 May that Dr David Molden has been selected as the new Director General designate of ICIMOD. He will succeed Dr Andreas Schild, current Director General, from 1 December 2011.

The selection was made by the full Board of Governors of ICIMOD, which met in Kathmandu from 25 to 28 May 2011.

Dr David Molden, a national of the USA, is a development specialist with more than 30 years of experience in designing, planning, executing, and monitoring programmes on water management, livelihoods and environment, and ecosystem services.

Dr David Molden

Dr Molden has acquired considerable management experience in a number of positions, including Chief of Party for the USAID irrigation management project in Nepal, Chief of Party for a USAID strategic research project in Egypt, and Leader of the International Water Management Institute (IWMI) Comprehensive Assessment of Water Management in Agriculture Programme. Currently he is the Deputy Director General of Research at the IWMI in Sri Lanka. He has worked in several countries in the Hindu Kush-Himalayan region, including China, India, Nepal, and Pakistan, and has experience in projects in the Indus, Ganges, Yellow, Mekong, Yangtze, Amu, and Syr Darya river basins. Dr Molden was awarded a PhD in Civil Engineering, specialising in groundwater and irrigation, from Colorado State University in 1987. He has received many awards, including the CGIAR Outstanding Scientist Award in 2009 and the Sri Lanka President's Award for Research in 2002 and 2005.

China considers ICIMOD as a valuable platform for increasing scientifc exchange and regional cooperation among countries of the Himalayas

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