



Research

IMHE Completes a Survey of Settlement Environment and Farmers' Livelihood in Middle Nepal

Under the arrangement of Sino-Nepal Joint Research Center for Geography Project and South Asian Project, Dr. Tang Wei, Zhang Jifei and SuYi from Institute Of Mountain Hazards And Environment, Chinese Academy of Sciences (IMHE, CAS) conducted a nine-day questionnaire survey and filed visits about settlement environment and farmers' livelihoods in mountainous area of Central Development Region in Nepal from Oct.30 to Nov.9, 2014. This trip received great help from the Department of Geography of Tribhuvan University of Nepal.

In this survey, Melamchi village, Dubachaur village, Ichok village and Helambu village, which belong to Melamchi River Basin was selected as the typical sample villages, and a total of 210

questionnaires were collected. Questionnaire includes basic information of the households, land use, family income, household expenditure, assets, living condition, and so on. Results showed that, different types of the households have different livelihood strategies, combination and income, so introducing and expanding non-agricultural activities is the development trend for local livelihoods strategies.

The survey also finds out that with altitude increasing, the settlement environment and the livelihoods of farmers showed a greater difference. And respecting to the high mountain region, settlements in valley region have a relative good environment and more diverse livelihoods. In addition, adverse natural environment, social and economic conditions as well as farmers own quality is combined effects on the sustainable development of the livelihoods and land use.

Through this investigation, the research group preliminary mastered the settlement environmental characteristics and the livelihood strategies of different types of households in Nepal mountains, which provides the basis data for exploring the impacts of different settlement environment on households livelihood strategies and the adaptation of the livelihood strategies for settlement environment.

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Experts from ICIMOD Visit Field Research Stations of CAS

Dr. Wu Ning, Theme Leader of Ecosystem Services of International Centre for Integrated Mountain Development (ICIMOD) and his 20 colleagues visited Zoige Alpine Wetland Ecosystem Research Station, Maoxian Mountain Ecosystem Research Station and Yanting Agro-ecological Experimental Station, Chinese Academy of Sciences on 22-24, Sept. 2014.

On 22-23, they visited two field sites of the Zoige Station located at Waqie township and Rigan township separately. Dr Zhu Dan, from Ecological Center of Chengdu Institute of Biology, Chinese academy of Sciences (CIB), briefly introduced the Zoige Station, and then introduced in detail on the work progresses of the two field sites on the aspects of structure and function of the ecosystem, biodiversity and sustainable development, the Himalayan region peatland greenhouse gas emissions, recovery and protection, and the related research methods, monitoring indicators, sampling method and frequency and so on..

On 24, guided by Mr. He Qihua from the Station, they visited meteorological observation field of the Maoxian station, and had a well discussion with the station staff on the selection of meteorological station, monitoring index system and the monitoring frequency. They also visited the long-term monitoring sample area around secondary vegetation (plantation,

deciduous shrub) as well as long-term monitoring facilities, including comprehensive observation field, auxiliary observation field, forest microclimate observation facilities, the trunk runoff, runoff field, flow weir about water, soil, climate and living arrangement.

After finishing the visit to Yanting Agro-ecological Experimental Station, a workshop on project progress was held in Chengdu. Dr Zhao Xinquan, Director of CIB attended the workshop and delivered a speech.

The activities were organized by ICIMOD and CIB, supported by Kailash project from ICIMOD and the project of Himalayan region peatland carbon assessment and ecosystem management under global change from CAS.

The Project of Water Management and Hazard Risk Reduction Related Policy and Institutional Analysis in China for Koshi River Basin Management Achieves Phased Results

2014 annual project workshop of <Water Management and Hazard Risk Reduction Related Policy and Institutional Analysis in China for Koshi River Basin Management> was held in Chengdu on January 5, 2015. An expert group composed of Zhong Yong, Director of international cooperation division of Ministry of Water Resources, Gong Tongliang, Deputy Director-general of the Tibet Autonomous Water Resource Department, Tian Jinchang, Director of Tibet Traffic Construction Project Centre

and Zhu Chunquan, a representative of World Conservation Union in China was present at the workshop.

Dr. Chen Ningsheng and Fang Yiping, as project responsible persons, introduced their works respectively on “flood characteristics of Koshi river basin” and “water management policy and institutional analysis upstream of the Koshi river”. Their reports pointed out that over the past year, the research works revealed the distribution characteristics and development rule of flood disasters. In combination with some case studies on Zhangmu landslides, zhangzangbu glacier and debris flows along china-Nepal highway, they carried out research works on flood disaster assessment and the key prevention technology and put forward a proposal about friendly transboundary water resource development and control measures against flood disasters. Meanwhile, their study also revealed the capital structure and its change law of farmers and herdsman livelihood in the upstream of Koshi river basin and impact and adaptation on rural family livelihood under the water resource change. They also indicated constraints and policy direction for upgrading capacity of livelihood of farmers and herdsman.

Combined with the project objectives, annual work plan and progress, expert group had a well discussion with project team and put forward their advices. They wish the project should further strengthen the related research between disasters and social economy, deepen the related research results, and put forward scientific and practical policy suggestions on the transboundary flood disaster management.

Dr Deng Wei, Director of Institute of Mountain Hazards and Environment, CAS, expressed his welcome and thanks to all expects for their presents at the workshop.

He pointed out that this project is of great significance as a demonstration project of international cooperation of science and technology. The implementation of the project obtained strong support from Chinese Academy of Sciences, Ministry of Science and Technology, Ministry of Water Resources. After more than two years of efforts, a series of phased progress has provided effective support of science and technology for the construction of One Belt and One Road and transboundary river management. He encouraged the project seriously absorb expert's opinions, and constantly improve the research plan to further deepen the research, expanding research achievements, lay a solid foundation for the next stage research works.

Partners Review Progress of Koshi Basin Programme at IGSNRR, Beijing, China on February 11–12, 2015

The Koshi Basin Programme (KBP) China National Review Workshop was successfully held on February 11–12, 2015 at the Institute of Geographic Sciences and Natural Resources Research (IGSNRR), Chinese Academy of Sciences (CAS) in Beijing, China. The workshop was jointly organized by IGSNRR and the International Centre for Integrated Mountain Development (ICIMOD) with support from the Australian Government through the Department of Foreign Affairs and Trade (DFAT). The Department of Land Change Science and Bio-geography, IGSNRR hosted this two-day workshop, which aimed to share collaborative activities, discuss the KBP's progress to date, enhance the effectiveness of the programme through active participation of key stakeholders, take stock of science outcomes, and generate desirable impacts.

Prof. Zhang Yili from the Department of

Experts from ICIMOD Visit Field Research Stations of CAS



Experts from ICIMOD Visit Field Research Stations of CAS



Land Change Science and Bio-geography, IGSNRR chaired the opening ceremony. Together with Prof. Liu Yi, Deputy Director of IGSNRR, Prof. Wu Ning from ICIMOD and Dr. Wang Zhengyu from CAS welcomed all the participants and extended their best wishes for a successful partnership between IGSNRR, CAS and ICIMOD. Over 40 participants from 15 institutions including IGSNRR, Institute of Mountain Hazards and Environment, Cold and Arid Regions Environmental and Engineering Research Institute, Peking University, National Natural Science Foundation of China, Yunnan Institute of Environmental Sciences, World Wide Fund for Nature China, Monsoon Asia Integrated Regions Studies, China Dialogue and others attended the workshop.

During the two-day workshop, participants discussed some key issues in the Koshi River basin. They shared their knowledge and ideas on topics like ecosystem services, water induced hazards, livelihood promotion, GLOF, climate change, land use and land cover change (LULCC), and soil erosion. Participants were later divided into three thematic groups to revisit the impact pathway: disaster risk reduction (DRR), LULCC and erosion, and ecosystem services and livelihood. The discussions were very fruitful in terms of identifying who would use the scientific outcomes, how those outcomes could lead to pragmatic solutions, and how research could inform policy for collective impact. Further, the meeting outlined future work plans for the collaborative projects

Partners Review Progress of Koshi Basin Programme at IGSNRR



between ICIMOD and IGSNRR.

The workshop successfully met its expected outcomes. It helped improve knowledge of water management issues, DRR, LULCC, and livelihood promotion in the Koshi River basin. The impact pathway was updated to enhance understanding of the science-policy nexus. The workshop not only generated important scientific knowledge but also provided an opportunity for current and potential partners to share their research progress, challenges and experiences related to issues in the Koshi River basin. (From ICIMOD)
(More information about the KBP is available at: www.icimod.org/kbp)

Chinese Academy of Sciences joins World Agroforestry Centre to Transform Agriculture in Central Asia

The Central Asia Workshop, which held from 18 to 22 January in Kunming, forged a comprehensive strategy to improve the productivity of central Asian landholders while boosting the environmental services these landscapes provide.

The central Asian node of the World Agroforestry Centre was formally launched at a global workshop hosted by the Kunming Institute of Botany with the support of the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ). Prof. Xu Jianchu, the head of the World Agroforestry Centre's East and Central Asia Office in Kunming, chaired the meeting.

Over 50 policy-makers, scientists and other experts from Europe, the United States, Africa, central Asia and China met in this workshop at the invitation of the Chinese Academy of Sciences (CAS) and the World Agroforestry Centre (also known as ICRAF) to discuss the future of central Asia's vast landscapes in an age of rapid

global change.

"The Chinese government is paying more and more attention to agroforestry and as the leading agricultural research institution, CAAS is making efforts in terms of research in this area," said Professor Feng Dongxin, Deputy Director of the Department of International Cooperation, Chinese Academy of Agricultural Sciences (CAAS).

Prof. Yang Yongping, Deputy Director of the Kunming Institute of Botany of the CAS, said: "Our work with ICRAF across China has been ground-breaking for the region, and we are very happy to help bring this knowledge to our central Asian friends."

The region that the Central Asian Agroforestry Centre Node will work with includes Kyrgyzstan, Kazakhstan, Tajikistan, Uzbekistan, Turkmenistan, northern Pakistan, parts of Afghanistan, western Mongolia and China's Xinjiang Autonomous Region. The central Asian node of the World Agroforestry Centre will be located in Bishkek, Kyrgyzstan and is hosted by the University of Central Asia's Mountain Societies Research Institute.

Today, it's known as permafrost steppes are thawing, dramatically impacting their ecology and damaging infrastructure and buildings. A century of monoculture has degraded the soil, and extreme events such as droughts and floods are becoming more frequent. Rapid development is taking its toll on water, land and energy.

"Agroforestry, a system in which trees are incorporated in agricultural landscapes, can offer a solution," said Prof. Xu. Agroforestry is a win-win solution where higher yields accompany more biodiversity and better shielding against climate change. "This makes agroforestry a crucial addition to the toolbox of central



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Asia's land managers," said Dr Niels Thevs, the newly appointed head of ICRAF's Bishkek office. "Trees also provide important environmental services, such as carbon capture and storage," he added.

Dr Ravi Prabhu, ICRAF's deputy director general for research, promised central Asian participants that "the Centre would be as good a partner as they've ever had", confirming the strong commitment of the Centre to bringing about change in the region.

Cooperation

TPE hosted a Training Program for Young Scientists in the Third Pole Region

During August 18 to 30, 2014, the Third Pole Environment program hosted a Science & Technology training program for young scientists in the region. About 19 young scientists from the Third Pole region joined the program.

The 12-day training included 7-day course

TPE hosted a Training Program for Young Scientists in the Third Pole Region



teaching, with subjects ranging from geology to geodynamics and environmental changes. It also offered 2 learning experiences in the laboratory, 2 field work experiences, 3 academic exchanges with scientists from other institutions and 1 academic exchange among the participants.

The training program was funded by CAS Bureau of International Cooperation. With an aim to help train young scientists in the Third Pole region, this program attracted 19 young scholars from 8 nations in the region, including Nepal, Pakistan, Myanmar, Russia, Tajikistan, Kyrgyzstan, Uzbekistan, and China.

Opening Ceremony of Sino-Nepal Joint Research Center for Geography Held in IMHE

Sino-Nepal Joint Research Center for Geography (SNJRGC) has officially opened in Tribhuvan University (TU) since April 28, 2014. Prof. Gunanidhi Nyaupane, Vice Chancellor of TU, invited by Prof. Deng Wei, Director of IMHE, visited IMHE on September 18, 2014, accompanying members including Prof. Padma Chandra Poudel, Director of TU Geography Department and Dr. Bal Mukunda Bhandari, Director of TU International Relationship Department, to attend the China's of Opening Ceremony of Sino-Nepal Joint Research Center for Geography. On behalf of Chinese government, Mr. Hu Gang, Vice Director of International Cooperation Division of Science & Technology Department,

Sichuan Province, also joined in this activity.

Prof. Deng Wei expressed his willingness of setting up a long term cooperation relationship with TU from the bottom of his heart, emphasized that IMHE will continuously support the construction of SNJRGC, and wished SNJRGC fruitful achievements in the future.

Mr. Hu Gang made a brief introduction of International Cooperation Division of Science & Technology Department, Sichuan Province, sent greetings from Mr. Luo Zhiping, the Deputy Director-general of Science & Technology Department, Sichuan Province, and wished a great success to this project. Prof. Gunanidhi Nyaupane expressed his thanks for China's kind help to TU. He said, as mountainous countries, it is so important for our both sides to conduct geographic researches that we cannot resist this opportunity to set up a joint center to fasten our cooperation relationship. Nepal's government will give full support for this project.

Both sides made general introductions of IMHE and TU, respectively, and Prof. Xiong Donghong gave a specific presentation on project progress and work plans. New research project applications, mainly for China's side, have been taken into account for continuously funding this center.

SNJRGC was funded by Ministry of Science & Technology of China, and jointly built by IMHE and TU. Based on global climate change, this center chooses the south and north slopes of the Himalayas as research areas, emphatically carries out the geographic researches of mountain hazards, mountain ecology, environmental monitoring and mountain development, aims to cultivate more talents specializing in mountain

geography, promote research abilities of Nepal's young scientists, and finally make contributions to China's impact on science & technology.

IMHE Mountain Remote Sensing and GIS Training Course in Nepal

Under the support of the CAS Program "Construction of scientific database about resource and environment of South Asian countries" and "Comparison study on monitoring typical mountain ecosystems of China and Nepal by remote sensing method", Dr. Song Mengqiang, Zhao Wei, Zhang Jianqiang and Zhang Jifei from Institute of Mountain Hazards and Environment (IMHE) were invited by Prof. Padma Chandra Poudel to visit the Central Department (CDG) of Geography of Tribhuvan University (TU), Nepal from 18-19th Nov, 2014. A technical training course about mountain remote sensing and geographical information system was held during this visit for the students and faculties in CDG, TU.

Dr. Zhao Wei, Zhang Jianqiang and Zhang Jifei provided the training courses for the topics related to theoretical basis of mountain remote sensing and mountain environmental monitoring using remote sensing method, mountain hazards interpretation from remote sensing, and spatial analysis of the settlement distribution in high mountain area respectively. A good interaction was built in the training between trainers and trainees, and they all think that the technical training is very helpful and it is beneficial to deepen the cooperation between IMHE and CDG. Meanwhile, they hope the similar training course will be continuously held by staffs from IMHE in the future.

After the training course, Dr. Song Mengqiang and Zhao Wei investigated the land cover and land use condition of the

urban and country area in Kathmandu Valley accompanied by Prof. Sher from CDG. The field work helps them to understand the environmental and resource problem of Nepal. Meanwhile, they visited the joint laboratory accompanied by Prof. Poudel and others faculties in CDG and discussed the issues on the further cooperation.

The 45th ICIMOD Board Meeting held in Islamabad

The 45th Meeting of the ICIMOD (International Centre for Integrated Mountain Development) Board of Governors was held in Islamabad, Pakistan from November 24 to 30, 2014. At ICIMOD's invitation, Prof. Cui Peng, Secretary General of CNICIMOD (Chinese Committee on ICIMOD), Vice Director of IMHE (Institute of Mountain Hazards and Environment, CAS), Prof. Hu Pinghua, Head of the Secretariat Office of CNICIMOD and Dr. Dong Qi from Bureau of International Cooperation, CAS (Chinese Academy of Sciences), went to Islamabad to take part in the 45th Meeting of the ICIMOD Board of Governors (BOG).

Meeting is in progress on the basis of the agenda and schedule, the works of ICIMOD in 2014 and the plan for 2015 were discussed, each member country reported the situation of cooperation with ICIMOD, and some suggestions were put forward. The Meeting of ICIMOD Support Group (ISG) and Meeting of Programme Advisory Committee (PAC) also were held, and discussion on the condition of

IMHE Mountain Remote Sensing and GIS Training Course in Nepal



Opening Ceremony of Sino-Nepal Joint Research Center for Geography Held in IMHE



financial revenue and expenditure in 2014 and financial budget 2015 were carried on.

Prof. Cui made the China Country Report 2014 at the meeting and reviewed the work process and achievement of ICIMOD in China. The next ICIMOD BOG meeting was supposed to hold in China in 2015.

Meanwhile, SERVIR Himalaya Youth Forum, UIB Network meeting, Cryosphere meeting and ICIMOD Pakistan Day are being held there.

Academic activities

Scientific Alliance on Silk Road Economic Belt

An international conference on 'Ecology, Environment and Sustainable Development of Silk Road Economic Belt' was organized on 15-16 June 2014 by the Institute of Geographic Sciences and Natural Resources Research (IGSNRR), Chinese Academy of Sciences (CAS) in Beijing, China. About 200 participants from more than 10 countries of Asia, Africa and Europe shared a common view of developing the ancient 'Silk Road' as a new 'economic belt'. This initiative is a response to the Chinese President Xi Jinping's proposal to build the Silk Road Economic Belt (SREB) in his speech in Kazakshstan on 7 September 2013. His voice has received support and response from the countries of the Silk Road.

The conference has come up with a resolution of establishing the 'International Scientific Alliance of the Silk

Road Economic Belt' whose secretariat will be hosted at the IGSNRR in Beijing. The objectives of the alliance are as follows:

1. enhancing international collaborative research and communication focusing on issues related to historical changes of the silk road, ecological and environmental investigation, and resource and environmental carrying capacity studies;
2. strengthening the innovative procedures on sustainable development, impacts of climate change and the responses;
3. promoting the international cooperation on the scientific data, information and knowledge sharing;
4. exploring new international cooperation schemes and projects on sustainable development;
5. promoting development of the 'Silk Road' regional and international cooperation platforms;
6. providing scientific think-tank support for governments of the related nations along the Silk Road; and
7. improving environment and promoting sustainable development.

The Silk Road Economic Belt covers the Old Silk Road in the higher latitude crossing China, Mongolia, Russia, Central Asian Countries and Europe; the stretch of Silk Road that extends longitudinally from the northern part of Mongolia to North-East India and from north of central Asia to Afghanistan, Pakistan and India; and the sea route connecting Europe, Africa and Asia. However, only the high latitude Old Silk Road has received attention so far.

Many academics and policy makers participated in the conference. Speaking

at the inaugural session, Sun Hunglie, an academic and a former ICIMOD board member, and Fang Xin, an academic who is currently the Deputy Secretary of the CAS Presidium, emphasized the importance of scientific contribution in the development of the Silk Road Economic Belt. In his plenary lecture, Dr Eklabya Sharma, Director of Programme Operations at ICIMOD, said that development programmes in the Silk Road Economic Belt should aim to improve the livelihoods of the local people while taking environmental safeguards into account. He stressed the need to promote trans-disciplinary research for achieving sustainable development and building a strong link between scientific findings and policy formulation. He also said a 'Silk Road Economic Belt Information System' should be established immediately, and that IGSNRR, as the host of the alliance secretariat, is the most appropriate institution for this taking up this task. Finally ISGNRR called all the participants and institutions to join the International Scientists' Alliance to promote the sustainable development of the 'Silk Road Economic Belt'. (From ICIMOD)

Comprehension Security Dialogue 2014 – Managing the Impact of Climate Change in South Asia

Comprehension security dialogue 2014 – Managing the impact of climate change in south Asia was held from June 19-21, 2014 in Dhaka, Bangladesh.

Organized by Hanns Seidel Foundation, The objective of the three-day conference was to discuss and understand the interconnectedness and nexus between water, energy and climate change, by bringing together experts from Bangladesh, India, Pakistan, Nepal, Bhutan, Sri Lanka, China and Germany.

After two days of closed roundtable

discussions among the experts, a public event was organized in collaboration with the Bureau of Economic Research (BER), University of Dhaka and the German Embassy in Dhaka to share the findings with a larger audience comprising experts, policy makers, academia and the media.

Dr. Ji Xuan from Institute of International Rivers and Eco-security, Yunnan University was invited to the meeting and made a presentation titled "Impacts of climate change on water resources in the Nuijiang River (Upper Salween) Basin and corresponding countermeasures".

The Hanns Seidel Foundation has been running a Comprehensive Security Dialogue ever since 2012 to address non-traditional security issues, inviting scholars and practitioners from all over South Asia and neighbouring countries from the region. They have been exchanging views and solutions for the pending threats as posed by energy security (Colombo 2012) and water security (Kathmandu 2013).

Asian International Rivers Forum Launch Seminar held in Kunming

Asia is the continent with world's largest land area, densest population, high-speed economic development, and the highest concentration of international rivers. It is also the area with weakest building capacity in coordination and management agency of international rivers.

China has become the world's most important upstream country because of the major international rivers of Asia originating from the region. In 2014, China launched the major strategic plan of the "Silk Road economic zone and 21st century Silk Road of Shanghai," which originated from the fact that many international rivers of the country are a key hub for maintaining and promoting this strategy. Moreover, "the Law of Navigational Uses in International

Scientific Alliance on Silk Road Economic Belt



Watercourses (approved by the UN General Assembly in 1997 came into effect on August 17, 2014),” exert an extensive impact on development and management of international rivers. With this trend, the prompt launch of "Asian International Rivers Forum" was required for advancing watershed protection initiatives in the region.

In response, from 3-8 of August, 2014, Asian International Rivers Center of Yunnan University and transboundary river and ecology security center of Tsinghua University jointly organized the "Asian International Rivers Forum" seminar in Kunming, which invited more than 20 experts and scholars from at home and abroad. The experts agreed that the launch of "Asian International Rivers Forum" is necessary and urgent. During the seminar they discussed the theme, operation and management mechanisms of the forum, initiated a consultation on international cooperation about transboundary water resources management, and a transboundary ecological compensation mechanism.

Experts Come Together to Find Climate Change Adaptation Solutions beyond Boundaries in the Hindu Kush Himalayas

ICIMOD, in partnership with the Government of Nepal's Ministry of Science, Technology, and Environment, held its 2014 flagship conference 'Mountain People Adapting to Change: Solutions Beyond Boundaries Bridging Science, Policy, and Practice' from 9-12

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November in Kathmandu, Nepal. The event brought together over 300 climate scientists, adaptation policy makers, and practitioners with the goal of finding more holistic approaches to adaptation that can bridge the gaps between professional viewpoints and go beyond political, sectoral, and national boundaries.

The event, attended by speakers and delegates representing more than 23 countries, featured 19 panel sessions designed to maximize participatory discussion through use of innovative formats such as dialogue cafés and interactive panels. The inauguration and opening high-level leadership panel on 9 November included policymakers from Bangladesh, Bhutan, India, Nepal, and Pakistan, as well as a video statement from the UNFCCC.

Each of the next three days was devoted to one aspect of adaptation strategy. Sessions on 10 November revolved around a range of issues in adaptation science. ICIMOD also launched the Regional Database System (RDS), an open-access web-based portal that will be a central data repository for the HKH region. The third day of the conference centered on adaptation policy. A number of organizations displayed their innovative work on adaptation in the region, and young professionals made poster presentations. The final day of the conference focused on adaptation practice. In the closing session, the high-level panel discussion focused on how mountain issues can be placed on the global agenda. Panelists and participants reflected on the central themes of the conference, and voiced their personal or organizational commitment to promote action on climate change adaptation in the region.

Prof. Dong Suocheng from IGSNRR made a presentation titled "The connotation of

smart climate change adaptation strategy", Prof. Liu Suxia from IGSNRR made a presentation titled "The scale issue on applying global and regional climate background in HKH areas".

Postdoctor Symposium on Adaptation to Climate Change in the Lancang-Mekong Basin in Yunnan

On December 1-3, 2014, a Symposium of Post-Doctoral Research Programme on Adaptation to Climate Change in the Lancang-Mekong Basin (PRoACC) was jointly held by Institute of International Rivers and Eco-security, Yunnan University and UNESCO-International Institute for Infrastructural Hydraulic Environmental Engineering (UNESCO-IHE) in Yunnan.

Speaking at the ceremony, Dr. Jaap Evers, Programme Manager of UNESCO-IHE emphasized the importance of PRoACC and listed four topics as follows, Managing sediments and nutrients across scales and climate change adaptation, Transboundary cooperation for sustainable water management and climate change adaptation, Urbanizing areas in the Mekong delta and climate change adaptation, and Enhancing the adaptive capacity and livelihoods of poor people to cope with climate change.

During the symposium, Prof. He Daming, Director of Institute of International Rivers and Eco-security, Yunnan University made a presentation titled "Climate-hydrological Change and Data Obstacles in the Upper Mekong (Lancang) River Basin". Prof. Ni Guangheng from Tsinghua University

Postdoctor Symposium on Adaptation to Climate Change in the Lancang-Mekong Basin in Yunnan



made a presentation titled "Knowledge Exchange on International Water". Prof. Cao jie from Yunnan University and Nguyen HuongThuyPhan from Mekong River Commission also expressed their views at the meeting. Finally, Prof. Meine Pieter van Dijk from UNESCO-IHE made a presentation titled "Climate Change Policies and Behavior of Farmer in Southern China" and put forward some targeted suggestions. Then participants went on a heated discussion.

The post-doctoral fellowship programme on Climate Change Adaptation in the Mekong River basin is part of the UNESCO-IHE Partnership Research Fund (UPaRF) that was established in April 2008, which aims to strengthen research output of the institute in collaboration with its partner institutes. The overarching objective is to investigate the many challenges of adapting to climate change from the different water-related perspectives of the different core groups of the institute.

The 5th TPE workshop brings TPE study to a new height

During December 8-9, 2014, the 5th Third Pole Environment (TPE) workshop was successfully held in Berlin, Germany. This workshop consisted of 7 themed sessions, including 1) Interactions between the Third Pole and the Asian monsoon, 2) Past climate and environmental changes, 3) Status of the cryosphere, 4) Status of rivers and lakes, 5) Geoecosystems and anthropogenic activities, 6) Impacts of recent climatic changes and adaptations to a changing Third Pole, and 7) Geodynamics and Geohazards. Each session invited 5-7 outstanding scientists to introduce their latest research achievements, or give an overview of the international understanding of the subject.

The workshop also invited participating

scientists to summarize the latest achievement and think about major challenges confronting the Third Pole environment research in the international academic community. Possible channels for interdisciplinary research of different subject were also briefly touched upon, so as to obtain a comprehensive understanding of the TPE.

Over 70 scientists from 13 nations, including China, Netherlands, Italy, U.K., Norway, Sweden and Swiss, attended the workshop.

This workshop was convened by three TPE co-Chairs, Prof. Yao Tandong, Lonnie G. Thompson and Volker Mosbrugger. It was jointly sponsored by the TPE program, the Sino-German Center and the DFG. The expected outcome from this workshop will be a peer-reviewed assessment book, summarizing current understanding of environment and geodynamics in the Third Pole region.

It was also proposed that the next workshop be held in Columbus, Ohio, USA.

For more information of the TPE workshop, including workshop agenda and some of the presentations, please visit the website at www.tpe.ac.cn.

TPE held Another Session at AGU Fall Meetin

During December 15-19, 2014, the Third Pole Environment (TPE) program held another session “Third Pole Environment under global changes” at the annual American Geophysical Union (AGU) fall meeting.

This session received over 40 high-quality abstracts, and consisted of two oral presentation sessions and three poster sessions. Eleven scientists from China, U.S.A, Germany, and U.K. were invited to give an oral presentation in the presentation session. Their topics ranged from paleoclimate and environment reconstruction from ice cores and lake sediment cores, to glacial mass balance in the Third Pole region, and from geology in East Asia to present day environment.

During the three poster sessions, about 40 scientists shared their research in the TPE session. They exchanged notes with over 20,000 scientists attending the AGU from all over the world, to promote the TPE concept and explore opportunities for further cooperation in the TPE study.

CAS-NASA Workshop Calls for Joint Glacier Research Using Earth Observations

The CAS-NASA “Workshop on the Use of Earth Observations to Address Glacier Change and Associated Hazards in the Hindu Kush Himalayas” was held from January 20 to 23 in Kathmandu, the capital of Nepal.

Against the background of the recent China-US Joint Announcement on Climate Change, the meeting was jointly sponsored by the Chinese Academy of Sciences (CAS) and the National Aeronautics and Space Administration (NASA), and co-organized by the CAS Institute of Remote Sensing and Digital Earth (RADI) and the Earth Science Division of NASA, with support from the

International Centre for Integrated Mountain Development (ICIMOD).

Themed on the use of Earth observations to address glacier change and associated hazards in the Hindu Kush Himalayan (HKH) region, it pooled together more than 40 renowned Chinese and US experts and scholars in the field of glaciers and snow cover from a variety of institutions of the two countries.

CAS President Bai Chunli and NASA Administrator Charles F. Bolden sent their congratulatory letters. Bai said in his letter, “I am pleased to welcome experts from both the US and China to get together in Nepal to discuss glacier change and associated hazards, and to explore means of using Earth observations to further enhance our scientific understanding about the Hindu Kush Himalayas”. Bolden said, “I am delighted that U.S. and Chinese scientists will be exchanging information for the first time on Earth-observation products for glacier characterization.”

RADI Director-General Guo Huadong and Michael Freilich, Director of NASA Earth Sciences Division, delivered keynote speeches at the opening session. In his talk, Guo provided an overview of Earth observation for climate change in the HKH region, and gave a brief account of the application of international satellites, focusing on China's satellites in particular. Freilich summarized in his talk key historical and ongoing NASA space-based measurements, as well as related research programs and modeling capacities in this region. The meeting featured three breakout sessions, covering glacier change and remote sensing of glaciers and snow, observations of hazards, and downstream effects on ecosystems and water resources. At the closing session, participants reached the consensus that

as the Himalayas are a typical region most sensitive to global change, it is urgently important to have a comprehensive understanding of the change pattern of the key elements in the region's Earth system, including glaciers, rainfall, landforms, aerosols, surface radiation, disaster vulnerability, and downstream ecosystems.

(Resource from Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences.)

Symposium calls for Transboundary Cooperation in 'Transforming Mountain Forestry'

Under the guidance of the Indian Ministry of Environment, Forests and Climate Change, ICIMOD, in collaboration with Forest Research Institute (FRI), India, organized the ‘International Symposium on Transforming Mountain Forestry’ from 18-22 January 2015 at the Forest Research Institute, Dehradun, India. More than 300 delegates representing 16 countries, the mountain states of India, universities, various international organizations, as well as Indian members of parliament (MPs) participated in the symposium.

The main objective of this symposium is to identify sustainable forest management practices and policies that can address the changing conditions in the HKH and propose a way to meet the current challenges in the mountain forest sector

The 5th TPE workshop brings TPE study to a new height



CAS-NASA Workshop Calls for Joint Glacier Research Using Earth Observations



by addressing conservation and inclusive development simultaneously.

The five-day symposium included 26 plenary and parallel sessions on a wide range of issues related to mountain forestry. Some of the major issues covered were forest governance, transboundary cooperation, biodiversity conservation, forest fire, human-wildlife conflict, forest degradation, mountain forests and climate change, mountain forest management, and forest policies. T Prof. Wu Ning from CIB chaired one parallel session: Flow of Ecosystem Services and Incentive Mechanisms. Yan Zhaoli from CIB made a presentation titled "The forestry policy in HKH areas" in one parallel session of Mountain Forestry: Policy, Governance and institutions.

TPE Delegates Attended the First Himalaya-Third Pole Circle Meeting

During February 5-6, 2015, the first Himalaya-Third Pole Circle Meeting was held in Thimbu, Bhutan. It gathered over 50 participants, including Olafur Ragnar Grimsson, President of Iceland, Tshering Tobgay, Prime Minister of the Kingdom of Bhutan, secretary of National Environment Commission in the Royal Government of Bhutan, and scientists, program managers and other policy makers in the Third Pole region.

The concept of Himalaya-Third Pole circle was jointly proposed by the President of Iceland and TPE chair Yao Tandong during

the Arctic Circle meeting in 2013. It intended to serve as a platform for dialogues between scientists and policy makers focusing on this region.

Prof. Ma Yaoming, ITP Deputy Director and Dr. Wang Weicai of the TPE program office were invited to the meeting. Prof. Ma introduced the TPE program during the meeting, arousing wide attention among attendees. The ensuing discussions focused on political challenges confronted by the Third Pole region in adapting to climate changes, and potential role the Himalaya-Third Pole Circle could play in addressing those challenges.

Prof. Ma also sat down with Dr. David Molden, Director-General of ICIMOD, during the meeting to discuss possible collaboration between TPE and ICIMOD in regional environment monitoring and assessment.

Meetings

2014 International Mountain Day Celebration held in Chengdu

December 11th, 2014 is the twelfth International Mountain Day (IMD). This year, the theme for IMD is Mountain Farming, which focus on how family farming in mountain regions is undergoing rapid transformation due to population growth, economic globalization, urbanization and the migration of men and youth to urban areas.

In order to celebrate 2014IMD, create a platform to exchange research of mountain development in the Himalayan regions, and also summarize the last year's work and develop the work plan in future, Chinese Committee on International Centre for Integrated Mountain Development (CNICIMOD) organized a symposium on Development Strategies of Mountain Development in Himalayan regions in Chengdu, Sichuan province, China on December 10-12th, 2014. Around 30 experts from ICIMOD and domestic research institutes and universities attended the symposium.

Several presentations were given focusing on the international programme developed in China, such as the Himalayan Climate Change Adaptation Programme (HICAP) and Koshi River Basin Programme (KBP), after a full discussion, valuable suggestions were put forward. Prof. Deng Wei, Deputy Secretary General of CNICIMOD gave a report on "Scientific and Cooperation Development in South Asia regions based on China 'One Belt One Road' Policy" which broaden the vision of scientific cooperation in South Asia regions.

The 2014 Annual Meeting of CNICIMOD was held during the symposium. Representatives from Bureau of International Cooperation of National Natural Science Foundation of China, Bureau of International Cooperation of Chinese Academy of Sciences, ICIMOD and members of CNICIMOD attended the meeting.

Aiming to raise public awareness about how mountain agriculture, which is predominantly family farming, has been a model for sustainable development for centuries, CNICIMOD made nearly 30 posters for displaying and prepared publications for distributing that reflect research works conducted on mountain hazard management, climate change and mountain development.

A Consultation on KPWL Transboundary Conservation Initiative in Xinjiang

A Consultation on Karakorum - pamir - wakhan Transboundary Conservation Initiative was held in the Xinjiang autonomous region, China on March 12-13, 2015. Representatives from ICIMOD, Xinjiang Institute of Ecology and Geography (XIEG), Chinese Academy of Sciences, Forestry Department of Xinjiang autonomous region, Forestry Bureau of Kashi, Tashikuergan nature reserve, Tourist Bureau of Tashikuergan attended the meeting.

This meeting aims at discussing the status and problems of biodiversity protection and social economic development, especially the transboundary cooperation and the next direction. The scientific research plan in Tashikuergan nature reserve for the next four years was agreed upon during the meeting. Participants discussed the implementation and made preparation for finally determination of this plan.

Symposium calls for Transboundary Cooperation in 'Transforming Mountain Forestry'



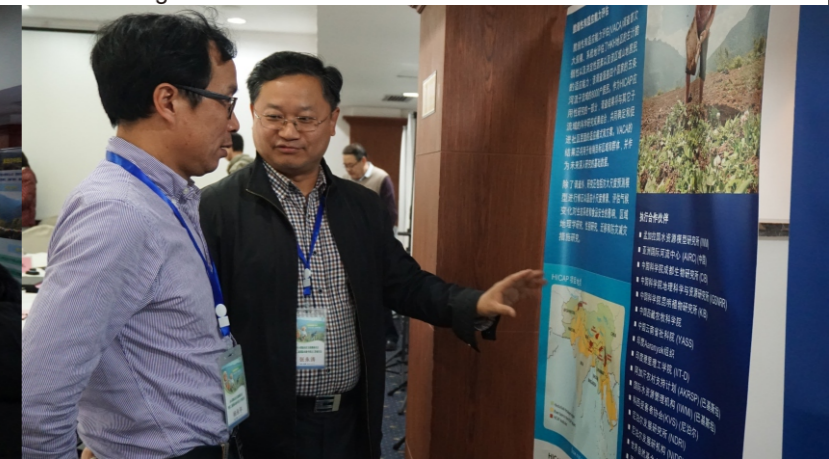
TPE Delegates Attended the First Himalaya-Third Pole Circle Meeting



2014 International Mountain Day Celebration held in Chengdu-1



2014 International Mountain Day Celebration held in Chengdu-2



Dr. Wu Ning and Dr. Yi Shaoliang from ICIMOD introduced the status of ICIMOD and KPWL project, as well as the projects have been implemented by now. Prof. Yang Weikang from XIEG introduced the Chinese conservation and development strategy. Prof. Liu Wenjiang also attended the meeting.

It's reported that the cooperation in Pamir area between China and Pakistan begins in 2003, in that year XIEG signed a memorandum of biodiversity research and conservation with World Wildlife Fund (WWF). After that, researcher of XIEG carried out twice surveys of animal and plant resources in Pakistan in the April of 2007 and August of 2010 respectively. XIEG held a symposium of Sino-Pakistan environment protection and sustainable development in the August of 2008, and formed a resolution of environment protection and sustainable development initiative in border region between China and Pakistan. From 2011 to 2014, ICIMOD organized several symposiums to promote such issues.

Focus

Seminar for Early Warning and Prevention Technology against Earthquake Secondary Disasters held in Chengdu

On October 24, 2014, an opening ceremony of "The First Seminar for Early Warning and Prevention Technology against Earthquake Secondary Disasters" was held in Chengdu. The seminar is

A Consultation on KPWL Transboundary Conservation Initiative in Xinjiang



supported by the Chinese Academy of Sciences and the Ministry of Human Resources and Social Security of China, jointly organized by Institute of Mountain Hazards and Environment (IMHE) and Sichuan Mountain Hazards Mitigation Engineering and Technology Research Center. Prof Liu Baojun, member of CAS, Prof Wang Gongxian from China Railway Northwest Institute, Prof Daniel B Abramson from Washington University and Prof Deng Wei, Director of IMHE attended the ceremony that was presided over by Dr Wang Quancai, Head of Sichuan Mountain Hazards Mitigation Engineering and Technology Research Center.

In his speech, Deng Wei pointed out that seismic secondary disasters to human life and property cannot be underestimated. Occurrence of earthquakes in Wenchuan and Lushan has gave us a profound experience and lesson, and capacity building of disaster prevention and mitigation is close related to people's livelihood security and national security. The seminar provides an important platform of high level for training and communication with a sound curriculum design that meet the needs of national mountain construction and development.

Right after the opening ceremony, Liu Baojun, Wang Gong-xiang gave lectures to participants on "the problems of water conservancy engineering considering of earthquake disaster", "large complex landslide and its prevention and control countermeasures" and carried out a well interaction and communication with them.

The instructors for the seminar are all famous scientists in the fields of geological disaster prevention, monitoring, early warning, they are Dr Cui Peng, member of CAS from IMHE, Chen Zuyu, member of CAS from China Institute of Water Resources and Hydropower

Research (IWHR), Prof Fang Yingguang from South China University of Technology (SCUT), Prof Chen Zhenghan from Logistical Engineering University of P.L.A and Prof Liu Xilin from Sun Yat-sen University and so on. They not only have theoretical knowledge but also rich practical working experiences to deal with flash flood, debris flow, landslide, collapse disasters. After the seminar, participants will learn updated knowledge and technology about disaster early warning, disaster prevention and emergency handling, their management skills to deal with sudden disasters will be quickly improved. Every instructor's lecture will be recorded and then formed network courseware by IMHE. The coursewares will be shared on the network of national professional and technical personnel knowledge update project site of Ministry of Human Resources and Social Security of China for professional and technical personnel to engage in learning activities. Participants came from Sichuan, Xinjiang, Tibet, Hubei, Jiangxi, Zhejiang, Anhui, Chongqing, Fujian, Beijing and other 18 provinces, municipalities and autonomous regions distributing in the fields of 20 industries, involving land, traffic, water conservancy and hydropower, national power, city building, metallurgy, coal, oil, agriculture, national defense, energy, information and so on. All of them are professional and technical personnel with senior titles, engaging in the works of disaster prevention and mitigation. In five days of the seminar, participants will study geological disasters rapid perception and recognition, frontier theory and new method for disaster prevention and reduction, scientific risk aversion and disaster emergency management and treatment technology through lectures, video materials, academic exchanges and discussion.

It is reported, this seminar is a public welfare service, all instructors from other

cities must cover all expenses by themselves. Limitation of the seminar was planned 70, but in fact, participants reached 130. By the end of the seminar, participants will fill out the "satisfaction evaluation form of fine training course of CAS. Qualified participants will get the certificate of "The national certificate in professional knowledge update project master".

Paper source: China Science Daily

The South-South Cooperation on Climate Change Forum in Lima

The South-South Cooperation on Climate Change Forum (SSCCC Forum) took place in the interval of COP20 of UNFCCC in Lima, Peru, on December 8, 2014. The Forum brought together 6 ministers from China, Egypt, Gabon, Mongolia, Nepal and Seychelles, principals of UN agencies, UNEP, UNDP, UNFCCC, UNCCD, GEF, IPCC, SC and SDC, senior representatives of development agencies and international organizations, leaders of science and business communities, as well as practitioners from around the world.

The SSCCC Forum aims to raise awareness of the role of South-South Cooperation, identify opportunities and challenges for South-South Cooperation, discuss and agree upon a number of enabling conditions for promoting South-South Cooperation, such as political, financial and institutional settings. The Forum is a unique opportunity for participants to engage in the ongoing climate talks and provide recommendations on a number innovative actions, policy setting, financing and institutional

development to enable rapid scaling up South-South Cooperation initiatives. The day event featured an Opening Ceremony and Ministerial Dialogue followed by high-level panels in plenary.

China described the establishment of a South-South Cooperation Fund and the doubling of its financial contribution to South-South cooperation. The UNFCCC Secretariat announced the creation of a window under the UNFCCC Trust Fund for South-South cooperation. Other participating panelists from such organizations as UNDP, UNEP and the GEF reiterated their commitment to supporting and enlarging South-South cooperation.

Speakers underlined the importance of scaling up existing South-South cooperation mechanisms in addition to establishing new ones for: joint research, capacity building and training; the documentation and sharing of experiences and lessons; and the creation of communities of practice. Some panelists also suggested that South-South cooperation should be built into

projects supported through multilateral and bilateral sources.

Mr. Xie Zhenhua, vice chairman of the National Development and Reform Commission (NDRS) expressed that China is willing to strengthen cooperation with different countries in jointly coping with climate change and improve collective response to climate challenges under the framework of South-South cooperation.

Achim Steiner, executive director of the United Nations Environment Program (UNEP), spoke highly of China's courage and leadership in bringing finance and technology transfer to the South-South cooperation mechanism to a new level.

The Forum is co-sponsored by the National Development and Reform Commission (NDRC) of China, UNEP, UNDP, and supported by SDC, WWF-China, UNEP-Tongji-IESD, UNFCCC and the Chinese Academy of Sciences. It is being organized in partnership by the UNEP-International Ecosystem Management Partnership (UNEP-IEMP), NDRC Climate Change Department and INTASAVE.

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

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