Third Issue

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38th ICIMOD Board Meeting Held in Kathmandu

The 38th ICIMOD Board Meeting was held in Dhulikhel near Kathmandu, Nepal from 26 to 28 December 2007. Dr Deng Wei, Secretary General of CNICIMOD, Dr Zhang Linxiu, Independent Board Member of ICIMOD, and Prof. Hu Pinghua, Head of Secretariat of CNICIMOD attended the meeting. The Board of Governors approved the new Strategic Framework and fi veyear Medium Term Action Plan for 2008-2012 at the meeting. The new strategy foresees three strategic programmes – Integrated Water and Hazard Management, Environmental Change and Ecosystem Services, and Sustainable Livelihoods and Poverty Reduction. These programmes will be supported by a strong knowledge management group and specialists in gender, equity, governance, and economics, working together on programmes designed to help people adapt to climate change and improve their livelihoods, while protecting the environment.

Dr Deng Wei briefl y introduced the ICIMOD 2007 Country Report for China at the meeting and clarifi ed the standpoint of China on collaboration with ICIMOD.

During the meeting, delegates from China visited the ICIMOD Demonstration and Training Centre at Godavari. They also had a productive discussion and exchange on inviting visiting scholars and on academic exchange and collaboration.

38th ICIMOD Board Meeting held in Kathmandu, Nepal

Proseminar on Development Strategy for Mountain Sciences Held in Chengdu

A Proseminar on the development strategy of mountain sciences was convened in Chengdu from 17 to 18 January 2008 with the theme of ‘Sustaining the Future by Scanning Mountains, Leading the Future by Cognising Mountains’. The seminar was hosted by the Bureau of Sciences and Technology for Resources and Environment and organised by the Chengdu Institute of Mountain Hazards and Environment (IMHE) of the Chinese Academy of Sciences (CAS). More than 20 Chinese experts and scholars from research institutes, universities, and government departments were invited to the seminar, including academicians Prof. Qin Dahe, Cheng Guodong, and Prof. Cui Zhijiu.

The Proseminar on Development Strategy of Chinese Mountain Sciences in Chengdu, China

Prof. Feng Renguo, Vice Director of the Bureau of Sciences and Technology for Resources and Environment, made an important address. Prof. Renguo indicated that, with the increasing attention on ecology and the mountains, the demand for mountain research has became urgent. As one of the important institutes for mountain research, IMHE has played an important role in key national projects and accumulated abundant experience. The seminar discussed the need for a general framework for scientific mountain research and the development of mountain sciences.

"It is a pageant of mountain sciences and a new inception of scientific mountain research", ssid Dr Deng Wei, Director of IMHE in an enthusiastic speech. He also expressed his sincere thanks to CAS, the National Natural Science Foundation of China, State Forestry dministration, People's Daily Xinhua News Agency, and Science Times for their participation and support.

Based on discussions at the seminar, it is expected that a framework for scientific ountain research in China will be developed, which will include a development strategy for the mountain sciences. It should have a broad and farreaching impact and will play an important role in scientific development and national strategic decisions in relation to sustainable development.

Qinghai-Tibetan Plateau – Environmental Change, Impact, and Regional Development Strategy

With its rich and varied natural landscapes and unique cultural and historical legacy, the Qinghai-Tibet Plateau, known as the 'roof the world', is the focus of worldwide attention. It is important to protect the ethnic heritage, traditional culture, and natural environment of the Plateau when promoting economic growth in the region, so as to achieve a balance between human development and the environment.

The 315th Session of the Xiangshan Science Conference was convened in Beijing from 4 to 6 December 2007, under the theme 'Environmental Change, Impact, and Regional Development Strategy'. More than 40 Chinese experts and scholars from research institutes, niversities, and government departments were invited to discuss such issues as environmental changes and their impact on the Qinghai-Tibet Plateau; strategic objectives, approaches, and countermeasures for sustainable development; and balancing development and the environment.

Prof. Yao Tandong from the CAS Institute of Tibetan Plateau Research and Profs Fan Jie and Gu Shuzhong from the CAS Institute of Geographic Sciences and Natural Resources Research presented reports on the 'Environmental Changes of the Qinghai-Tibet Plateau in Modern Times' and 'Regional Development Strategy for the Qinghai-Tibetan Plateau', respectively. The executive chairs of the conference were:

* Prof. Sun Honglie from the CAS Institute of Geographic Sciences and Natural Resources Research
* Prof. Ding Yihui from the National Climate Centre
* Prof. Duo Jie from the Tibet Bureau of Geology and Minerals Prospecting and Development
* Prof. Zheng Du from the CAS Institute of Geographic Sciences and Natural Resources Research

Glacier Thinning in the Qilianshan Mountains

Results from the programme 'Investigation of Glacial Resources and Change in China' show that glaciers within a survey area of 20,000 square kilometres have shrunk by 7.4% compared to when the area was fi rst surveyed in the 1950s to 1980s. The glaciers upstream from Yilihe, the Zhungeer basin, and Yarlongtsangpo (Brahmaputra) shrank the most at 18%, while in Qilianshan, Animaqingshan, and Lancangjiang (Mekong) the shrinkage was about 10%.

The thickness of some glaciers had decreased markedly, while in other areas they had not decreased. For example, the altitude of the ice surface of No. 12 glacier in Laohugou, Qilian Mountains decreased by 20-25 metres and the terminal of No. 5 glacier in Yanglonghe retreated by 260 metres. Using radar measurements it was ascertained that since 1984, glacier 7-1 had thinned by 19.6 metres on average, and retreated 50 metres at its terminal.

"The variation in glaciers is a result of global climate change", suggested Prof. Ding Yongjian, Vice Director of the Cold and Arid Regions Environment and Engineering Research Institute, CAS. The impact of global climate change is all encompassing covering issues related to both natural sciences and social sciences. Strengthening study of this issue will support understanding of and adaptation to global climate change.

Yunnan Launches Biodiversity Conservation Action

On 21 February 2008, the Yunnan Provincial Government kicked off an ambitious conservation action programme entitled 'Charming Three Rivers, Colourful Yunnan' to protect the rich biodiversity of Northwest Yunnan. At the launch, 3000 people from government agencies and the general public gathered at the World Heritage Park Square in Lijiang City. On the occasion, Qin Guangrong, the Provincial Governor, granted programme flags to the authorities from the five prefectures of Baoshan, Dali, Lijiang, Nujiang, and Diqing.

The ceremony of unveiling the monument of Lijiang Pronouncement on Biodiversity Conservation in Northwest Yunnan

At present, biodiversity in Northwest Yunnan is being threatened by the region' s growing developmental needs, the invasion of exotic species, and the loss of rare and endangered species. The action programme will target these threats and enable local authorities to establish an integrated conservation plan, legitimise relevant regulations, enforce such regulations, and formulate payment mechanisms for ecosystem services. Based on resource endowments and the carrying capacity of the environment, it is recommended that all relevant governments conduct ecological function planning and supervise conservation and development activities in different regions. The strategy of the conservation action programme is to enhance the role of local government and multi-stakeholder participation (such as NGOs, volunteers, and the general public, from both home and abroad).

The Provincial Governor, Qin Guangrong, emphasised that the programme sent a positive signal to the international community. Following the usual international practice, Yunnan will provide a practical example of how to build a modern ecological civilisation to China and the world. The attending experts and scholars expressed their great appreciation of the Yunnan Provincial Government for its enforcement of biodiversity conservation in Northwest Yunnan. They contended that these activities are not only critical to Yunnan, but, as an innovative example of environmental conservation and the construction of an ecological civilisation, will benefi t the whole of mankind.

During the opening ceremony on the 21st of February, a monument on the Lijiang Pronouncement on Biodiversity Conservation in Northwest Yunnan was unveiled. The Pronouncement indicates that Yunnan will abide by international conventions and national policies to conserve its biodiversity, balance environmental protection and development needs, and change development patterns to mitigate existing threats to biodiversity in Northwest Yunnan. Other efforts will be made to develop conservation plans, optimise policies, and implement enforcement and monitoring systems. In the coming years Yunnan will speed up the conservation of both key ecological zones and biomes.

Technical Exchange Conference on Monitoring Landslide Disasters in Chongqing

A Technical Exchange Conference on Monitoring Landslide Disasters was recently hosted by the Chinese Academy of Sciences (CAS) and the Chongqing Municipal Government. More than 80 leaders and experts from CAS and local government, as well as institutes of design and construction, attended the conference.

The CAS Disaster Prevention Mode brings together grassroots organisations, public managers, and professionals, and uses information technology not only to improve disaster mitigation measures, but also to accumulate original data for the study of geohazards. This system has been applied in Wanzhou prefecture of Chongqing and will be applied in the whole of Chongqing City. The application of this approach will solve practical problems in relation to geohazards in Three Gorge areas, provide technical support, and be useful to governments in decision making.

Achievements in Scientific Research Win Sichuan Science and Technology Prize

At an awards ceremony hosted by the Sichuan Science and Technology Bureau, two achievements of IMHE were nominated for awards. The 'Comprehensive Development of Characteristic Biological Resources of Panxi, Sichuan Province and its Demonstration' won second prize and the 'Research and Application of the Heredity Multiplicity of Auricularia polytricha and Breeding of its Improved Species' was awarded third prize.

As one of the 10th Five-year Programmes for science and technology development in China, the 'Comprehensive Development of Characteristic Biological Resources of Panxi, Sichuan Province and its Demonstration' focuses on the rich biological resources of Panxi, Sichuan Province and their applications. It also pays close attention to some major problems, such as the deterioration of the biological environment, the degradation and rapid decrease of wild biological species, and the extinction of precious wild species due to excessive exploitation. In the six years of research, some notable achievements were made including: the development of a programme on the characteristic biology in Panxi Region; the collection, planting, and demonstration of characteristic vegetable resources in Panxi Region; the comprehensive development and demonstration of characteristic fungi in Panxi Region; the advancement of major technology in developing characteristic biological resources in Panxi Region; the formulation of two modes of industrialisation for development of characteristic biology in Panxi Region; the industrialisation of four programmes (industrialised development of Dama Shige rose, extraction of otto, and extraction of rare ripe lute; ndustrialised development of characteristic fruit; the building of an ecology pattern; and the research and application of new species of edible fungi). Up to 2007, more than 1300 million Yuan was generated for the region by the programme.

The 'Research and Application of Heredity Multiplicity of Auricularia polytricha and Breeding of its Improved Species' is a systematic

Breeding of improved species of Auricularia polytricha

research programme involving the collection of different species of Auricularia polytricha and the breeding of improved species, as well as the analysis of its genetic milieu and gricultural evaluation. Through demonstration and technology training, four improved fungi, developed through breeding and experimental optimal selection, have been planted in a large area of Sichuan, Lushan County in Henan, Shandong, Anhui, and other provinces, yielding considerable economic returns. More than 100 million bags of fungi were planted from 2000 to 2006, producing benefits of over 100 million Yuan.

Consultation Workshop on Experimental Technology of Debris Flow Observation in Dongchuan

The Fourth International Conference on Debris-Flow Hazards Mitigation: Mechanics, Prediction, and Assessment was held from 10 to 13 September 2007. Conference participants and participants of the post-conference field trip from 14 to 16 September all considered the CAS Dongchuan Debris Flow Observation and Research Station (DDFORS) at Jiangjia Ravine in the Xiaojiang Watershed to be the optimal field research station for debris flow observation as it has the longest observation history and the best research facilities in the world. International scholars suggested that the DDFORS should be strengthened, the integrated system of debris flow observation and experimental technology perfected, and DDFORS established as an international debris flow observation and research centre significant in the development of debris flow research and international approaches to mitigation of mountain hazards. A proposal was made for the construction of observation facilities at DDFORS at the suggestion of international scholars.

A consultation workshop was held by the Key Laboratory of Mountain Hazards and Surface Process, Chinese Academy of Sciences, and DDFORS on 14 and 15 January 2008 at Dongchuan, Yunnan. Eight experts from the Chinese Academy of Sciences and various universities were invited to the workshop; Professor Dingcheng Huang, the Vice Director of the academic committee of the Key Laboratory of Mountain Hazards and Surface Process, presided. The experts investigated the debris flow formation area at Jiangjia Ravine, debris fl ow in Xiaojiang Watershed and the observation facilities at DDFORS. They then had a thorough and detailed discussion with staff of DDFORS about the construction proposal and the existing observation facilities at DDFORS. Professor Deng Wei, the Director of the Institute of Mountain Hazards and Environment, made an important address. Professor Peng Cui, the Director of the Key Laboratory of Mountain Hazards and Surface Process, described the benchmarks of the subject, the national demand, the main scientific problem, the main content of the observations, and the concept of the field observation system.

The experts believe that DDFORS has the ability to develop itself into an international platform for entire-process debris flow observation. They discussed in depth the observation technology for dynamic landform processes, including the formation, movement, accumulation, and sand transportation of debris flow. Valuable suggestions were put forward, and concrete plans for the newest observation technology and methods of debris flow formation, movement, and accumulation were made. The tracer technique, which can be used to observe the speed of debris flow and the movement track of grain, was also discussed in detail at the workshop.

This workshop will help to perfect the integrated field observation scheme for full-process debris fl ow based on Jiangjia Ravine, and promote the construction and development of DDFORS.

Consultation Workshop on Experimental Technology of Debris Flow Observation in Dongchuan

A Milestone for Agricultural Scientific Collaboration between IMHE and Yunnan Province

Mountain areas account for 90% of the mountainous province of Yunnan. To facilitate scientific collaboration and support agricultural modernisation, a conversazione on scientific collaboration was held in Kunming on 24 December 2007 between IMHE and the Agricultural Academy of Yunnan Province. Dr Deng Wei, Director IMHE; the principals of the Divisions of Scientific Cooperation of IMHE; Mr Huang Xingqi and Dai Luyuan, Director and Vice Director of the Agricultural Academy of Yunnan Province; and some relevant principals attended the meeting. Mr Dai Luyuan presided. At the meeting, the parties discussed how to cooperate and how to complement each other' s work and subject areas, as well as how to develop experts.

At the meeting, an agreement on overall scientific collaboration was signed. The parties agreed to cooperate on mountain agriculture, management of degraded ecosystems, and the application of modern agricultural technology by establishing field observation and research bases, jointly applying key programmes from national and local governments, cultivating experts, and setting up sharing mechanisms for scientific resources.

Ceremony of signing an agreement on scientific cooperation between IMHE and the Agricultural Academy of Yunnan Province in Kunming

A Symposium on Scientific Cooperation between IMHE and Tibetan Municipality

A Symposium on scientific cooperation between the Tibetan Municipality and IMHE was held in Chengdu on 26 December 2007. The Symposium was organised jointly by the Science and Technology Bureau of Tibet Municipality, the Bureau of Academy-Locality Cooperation, Chengdu Branch, and IMHE. Mr Ma Shengjie and Mr Jiang Danping, Director and Vice Director of the Science and Technology Bureau of Tibet Municipality, Mr Sun Dianyi, Vice Director of the Bureau of Academy-Locality Cooperation, Ms Zhang Yihong, Head of Scientific Cooperation Division of Chengdu Branch, and Dr Deng Wei and Dr Cheng Genwei, Director and Vice Director of IMHE attended the meeting. Prof. Guan Xiaogang, Vice Director of the Institute, presided.

Dr Deng Wei gave an ebullient speech expressing his thanks and welcoming all leaders and participants. He stressed that supporting Tibetan development with the help of science and technology is a signifi cant part of the work of the Academy-Locality of CAS and pointed out that the Tibetan Municipality is the main region covered by the Institute. We must fulfil the agreement with the Academy-Locality signed by President Lu Yongxiang and the leaders of the Tibetan Municipality and facilitate cooperation in relation to science and technology. Dr Cheng Genwei gave an overview of the status and the strategic mission for the next ten years. Prof. Chen Xuehua described the collaborative work carried out by the institute and suggested some key programmes aimed at eco-security and livelihoods for local people, as well as capacity building in relation to conservation of the environment.

Mr Ma Sheng Jie and Mr Jiang Danping praised the effective work of IMHE in the Tibetan Municipality and its distinguished contribution to the prevention of mountain hazards and the conservation of the environment. They pledged their support for IMHE in using science and technology in developing the social-economy of Tibet.

Mr Sun Dianyi pointed out that the orientation of IMHE accords with the country' s requirements with a definite aim. Only by aiming at the country' s requirement, can the Institute of CAS play the role of a national team. He stressed that CAS has been recognising the work of the Locality-Academy and wished that IMHE would play a more important role as a bridge in cooperation with the Locality-Academy.

Symposium on scientifi c cooperation between Tibetan Municipality and IMHE held in Chengdu

Rural Survey into Impacts of Agricultural Tax Elimination on Public Goods Investment to Start in Sichuan Province

The Chinese Academy of Sciences is funding a survey into the 'Impact of Agricultural Tax Elimination on Public Goods Investment' in Sichuan Province. Previous studies have found that, at the community level, investment in public goods and services has been shared not only by various central and local governments, but also by communities themselves. However, the recent rural fiscal reforms and, in particular, the elimination of agricultural taxes in 2006, have had a significant impact on public goods investment and poses new challenges in relation to the financing of public goods and services at the community level. Thus, the overall objective of this project is to analyse the impacts of agricultural tax elimination on rural villages' fiscal health, as well as on how villages manage and allocate their resources between the provision of public goods and services and other activities. Eventually, it is expected that the project will provide some empirical evidence on how rural public policies should be formulated in order to maintain integrated development.

The study will be conducted using data from a large national representative sample survey, applying both econometric and statistical analysis tools to test empirically how the elimination of agricultural taxes have impacted on village revenue sources; the allocation of resources, especially on investment in public goods and services; community level resource mobilisation; and implications for the future financing of community goods and services.

The Sichuan rural survey is part of a large national survey. The survey

will be carried out jointly by the Center for Chinese Agricultural Policy and the CAS Institute of Mountain Hazards and Environment.

Visiting residents in rural countryside

Gongga Mountain Alpine Ecosystem Observation and Experimental Station

Built in 1987, the Gongga Mountain Alpine Ecosystem Observation and Experimental Station of the Chinese Academy of Sciences (CAS), is one of the few alpine ecological stations in the world. It entered the Chinese Ecosystem Research Network (CERN) in 1990 and became one of the national key field scientific experimental stations in 1999. Gongga Mountain Station entered the Observation Network of Atmosphere Background of CAS in 2004 and formally became the national key field scientific observation and research station for the Ministry of Science and Technology in 2006.

Mt Gongga (29.30-30.30° N, 101.50-102.25° E) is located on the south-eastern fringe of the Qinghai-Tibetan Plateau and forms a transitional belt between the Sichuan basin and the Qinghai-Tibetan Plateau. Stretching from south to north, Mt Gongga covers an area of 10,000 sq.km; the actual peak is 7556 masl, towering over the Hengduan Mountains. Geomorphically, the area is typically one of high mountains and deep gorges with an intact vertical zonality that spans subtropical to frigid. The area has an obvious transitional climate, abundant biodiversity, a complicated floristic composition, various vertical forest ecosystems, and a primary ecological environment, as well as wide-ranging modern glaciers at low elevations and traces of ancient glaciers. The climate is warm and humid, strongly impacted by the southwest monsoon. The mean annual temperature declines from 11° C to -1° C along the elevation gradient. The mean annual rainfall increases with elevation from approximately 1300 mm per year to over 3000 mm per year. The vertical gradient of the Gongga Mountains is typically representative of the southeast Tibetan Plateau. Tectonic movement has been very strong since the Quaternary period; the remnants of glaciation are preserved intact. There are large glaciofluvial deposits of multiple types. The Mt Gongga area is a museum of geoscience and biology and an ideal research place for ecological environmental research on the eastern edge of the Qinghai-Tibetan Plateau.

The Gongga Mountain Station' s core research areas are the interaction between alpine natural ecosystems and human activities; the productivity of alpine ecosystems and their environmental effect; the effect of the Qinghai-Tibetan Plateau uplift and the glacier ebb and flow on alpine ecosystems; the monitoring of mountain environment dynamics; and forecasting of regional environmental evolvement trends. The main scientific objectives of the station are to nderstand the environmental effect of the Qinghai-Tibetan Plateau, to understand the formation mechanisms of forest productivity in southwest China, to explore the response of alpine ecosystems to global climate change, and to enrich and develop the discipline content and theoretical basis of montane-environmentology so as to study the interaction process between the cryosphere-biosphere-human activities, to provide a scientific basis and experimental data for the rational use of mountain resources, to protect the mountain environment, and to explore the relationship between the Qinghai-Tibetan Plateau and global climate change.

Gongga Mountain Observation and Experimental Station of Alpine Ecosystem, CAS

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

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