



Third Pole Environment Workshop held in Beijing

The Third Pole Environment (TPE) Workshop was held in Beijing from 14 to 16 August 2009, attracting about 70 scientific and technical staff from 15 countries. During the workshop, 20 participating scientists reported on their latest research achievements. All participants were deeply involved in the discussions and generously shared their insights on the scientific significance of the TPE workshop, key scientific issues, and the organisation of, and future planning for, the sustainable progress of the TPE initiative and related subjects.

Five key scientific issues were identified for the TPE study, namely, 1) What and how have environmental and ecological changes occurred at different time scales in the past? 2) What are the characteristics of water and energy cycles and what are their components? What is their relationship to the Indian monsoon? 3) How will ecosystems change under global warming, especially at high elevation? 4) How will glacial retreat and changes in mass balance affect water and energy cycles and their components? What are the environmental impacts? 5) What are the consequences of anthropogenic activity in the region and how can they be dealt with?

In relation to the final goal of the workshop – to deepen human understanding of the TPE – participants suggested involving various organisations, academic institutions, and interest groups to conduct a multidisciplinary study of water-ice-air-ecology-human interactions in the region. Although the project would be long term, in the near future the focus would be on joint expeditions to transects in the Third Pole region, the establishment of observation stations and a data sharing platform, summer schools for young scientists from participating countries, and the formation of a science committee consisting of scientists from a broad range of countries and academic backgrounds. A TPE general office was also envisioned to coordinate and implement programmes, host annual workshops and summer schools for young scientists, conduct regular maintenance of the TPE website, deal with correspondence, and publish regular newsletters. During the initiation stage, all participants agreed to locate the general office at the Beijing campus of the Institute of Theoretical Physics (ITP).

At the end of the workshop, Prof YAO Tandong, Lonnie Thompson, and Volker Mosbrugger were nominated by the participants to organise the TPE science committee. Future TPE workshops were also discussed, including one in Kathmandu, Nepal, in 2010 and one in New Delhi, India, in 2011.



The first International Training Course on Participatory Integrated Watershed Management held at ICIMOD

The International Centre for Integrated Mountain Development (ICIMOD) held the first International Training Course on Participatory Integrated Watershed Management (PIWM) from 5 to 15 October 2009 at the Godavari Training and Demonstration Centre in Kathmandu, Nepal. There were 20 participants from 12 countries, including Afghanistan, Bhutan, and Myanmar. Dr FAN Jihui from the Institute of Mountain Hazards and Environment, Chinese Academy of Sciences (CAS), was invited to participate.

The purpose of the training course was to enhance the conceptual and practical knowledge of participants in participatory integrated watershed management. Participants were expected to learn how to identify appropriate strategies to address sustainability issues in participatory integrated watershed management, and how to analyse and prepare community-based integrated watershed management plans.

The course was run over 11 days and was structured around the following modules.

Module 1: Introduction to participatory integrated watershed management. Analysis of the role, importance, and issues of participatory watershed management and familiarisation with conservation technologies and strategies.

Module 2: Familiarisation with the processes and issues involved in working with communities in participatory integrated watershed management.

Module 3: Introduction to integrated watershed management planning with communities. Basic knowledge of different tools for community-based integrated watershed management planning.

Module 4: Introduction to the enabling framework for participatory integrated watershed management, including the policy environment, local governance, and payment for ecosystem services.

The course used a participatory training approach throughout. Classroom lectures were complemented by field visits and group exercises.

The 40th ICIMOD Board Meeting held in Chengdu

The 40th ICIMOD Board Meeting was held in Chengdu from 16 to 20 November 2009. A series of meetings were held in conjunction with the Board Meeting, including the 16th Programme Advisory Committee (PAC) Meeting, the 20th ICIMOD Support Group (ISG) Meeting, and Centre's Day. Delegates reported on and



discussed the implementation of ICIMOD projects in China. The Bureau of International Cooperation, CAS, Chinese Committee on ICIMOD (CNICIMOD), and ICIMOD jointly organised a symposium 'Concerning Mountains and Supporting Future'. Five presentations were made introducing current research work being conducted on mountains, as well as ICIMOD's development strategy. Dr Schild, Director General of ICIMOD, expressed his thanks for the projects designed by CAS which are to be carried out in the HKH region.

On the assignment of Prof DING Zhongli, President of CNICIMOD and Vice President of CAS, Dr YAO Tandong, Vice President of CNICIMOD, was appointed the Chair of the Board Meeting. Mr XIANG Zhiyong, Deputy Secretary General of the Chengdu Government, presented at the opening ceremony and gave an opening address. Prof. DING gave a speech at the farewell dinner and had a broad conversation with the meeting participants.



Conference of the Chinese Committee on International Centre for Integrated Mountain Development held in Chengdu

The Conference of the Chinese Committee on International Centre for Integrated Mountain Development (CNICIMOD) was held in Chengdu on 18 November 2009. During the conference, participants discussed and approved the organisational structure, personnel, constitution, and articles of association of CNICIMOD, and discussed follow-up work to be undertaken by the Committee. About 30 people attended the conference including Dr YAO Tandong, Vice President of CNICIMOD, Dr DENG Wei, Secretary General of CNICIMOD, Mr WANG Zhenyu, Director of International Organization Division of the Bureau of International Cooperation, CAS, Dr ZHANG Linxiu, Independent Board Member of ICIMOD, and Dr OUYANG Hua, Programme Manager of Integrated Water and Hazard Management (IWHM), ICIMOD, as well as committee members and representatives from other member units. Dr DENG Wei presided over the conference.

Prof HU Pinghua, Head of the Secretariat of CNICIMOD, reported on the work in progress since the establishment of CNICIMOD. The report covered the organisation of CNICIMOD, relevant meetings and activities, information gathering and advertising, youth training and communication among the talents, and cooperation projects, among other things. CNICIMOD has moved from conducting simple tasks, like communicating with and assisting ICIMOD, to coordinating with and organising relevant member units to promote and support scientific research and regional sustainable development programmes for adaptation to climate change.

Dr DENG Wei briefed participants in detail on the draft proposal for the articles of association of CNICIMOD, which stress its guidance function, and the feasibility of these regulations. When confirming the member units and committee members, qualified scientific research entities and personnel who have built a sound relationship with ICIMOD will be considered, as well as relevant government departments and competent authorities. The proposal highlights that the membership structure of CNICIMOD should facilitate its role as



a platform for connecting scientific research entities engaged in mountain research and management, government organisations, and the academic community, as well as for promoting the development of mountain science.

Mr WANG Zhenyu noted that CNICIMOD aims to coordinate research experts and staff in relative fields; facilitate international cooperation with ICIMOD; and enhance the functioning and influence of ICIMOD in China. Additionally, CNICIMOD will greatly promote the study of mountains in China and expand foreign exchange and cooperation by making use of the ICIMOD platform effectively.

Concerning other issues like the member units, mode of cooperation, content, and mechanisms of CNICIMOD, the basic framework of CNICIMOD, its members, and articles of association were confirmed through full discussion after considering suggestions.

All the participants believed that the future work of CNICIMOD should be based on the national conditions of the state, concern about the vigorous development of mountainous areas relating to the revival of the

Chinese Nation, improving CNICIMOD's capacity for scientific research, the dissemination of technical information, decision-making consultation, and others, as well as informing and influencing society through the dissemination of popular science. Dr OUYANG Hua put forward some important suggestions about the international exchange of young scientists and technical personnel and about helping CNICIMOD to act as a communication platform to facilitate international and national cooperation to promote the results of China's development and scientific and technical strengths and expand China's influence in the world. With respect to academic exchange, Dr ZHANG Yili from the Institute of Geographic Sciences and Natural Resources Research (IGSNRR) suggested that CNICIMOD could work with other associations and institutes to hold annual academic meetings so as to expand the communication range of personnel engaged in research in mountainous areas. Mr LIN Zuoding, Deputy Director of the Hydrographic Office, Ministry of Water Resources, made suggestions about holding specific academic symposiums or forums to encourage experts, the general public, and the state to attach more importance to the development of mountainous areas.

Dr YAO Tandong mentioned that CNICIMOD should focus on the promotion of regional cooperation, innovative cooperation mechanisms, building integrated research capacity, and the expansion of China's international academic influence.

The conference finished with a friendly and animated discussion, and was deemed a great success. The conference made significant progress, and this will accelerate the development of CNICIMOD and strengthen its cooperation with ICIMOD in relevant fields.

CNICIMOD publicises International Mountain Day

International Mountain Day is an opportunity to create awareness about the importance of mountains to life, highlight the opportunities and constraints in mountain development, and build partnerships that will bring about positive change in the world's mountains and highlands.

December 11th was designated as 'International Mountain Day' by the UN General Assembly in 2003. This was a result of the success of the UN International Year of Mountains in 2002 which increased global awareness of the importance of mountains, stimulated the establishment of national committees in 78 countries, and strengthened alliances through promoting the creation of the International Partnership for Sustainable Development in Mountain Regions, known as the 'Mountain Partnership (World Summit on Sustainable Development in Johannesburg, 2 September 2002). The UN Food and Agriculture Organization (FAO) is the designated lead coordinating agency for International Mountain Day and is mandated to lead its observance.

A different theme relevant to sustainable mountain development is chosen for International Mountain Day every year. The theme for 2009 was 'Disaster Risk Management in Mountains'; it aims to raise awareness about the high number of natural hazards in mountain areas and the vulnerability of mountain communities. The theme draws attention to sustainable agricultural, pastoral, and forestry practices as key elements of risk reduction, as well as the need to develop integrated strategies and policies at the national level.

Mountains are hazardous places. Many mountain communities live with the threat of earthquakes, volcanic eruptions, avalanches, landslides, and floods. The factors that cause people to live in these vulnerable situations include ties of kinship and community, a culturally different notion of risk, and, last but not least, poverty.

CNICIMOD publicised and celebrated this special event with a display of posters on this year's theme in the lobby of Chengdu Institute of Mountain Hazards and Environment, CAS, and distribution of publications reflecting research work conducted on mountain hazard management and climate change adaptation in the Hindu Kush-Himalayan region. Researchers and graduate students showed great interest in mountain issues and took away almost all the publications prepared. CNICIMOD was very encouraged by the level of interest shown and felt that the publicity for the event was very effective.

Workshop on International Cooperation Key Project of CAS held at IMHE

On 16 to 19 January 2010, CNICIMOD held a Workshop on International Cooperation Key Project of CAS at the Chengdu Institute of Mountain Hazards and Environment (IMHE). The main objective was to discuss how to enhance collaboration with international partners



in the implementation of the project and how to keep the project running smoothly.

Dr DENG Wei, director of IMHE, CAS, gave welcome remarks, after which Dr LIU Linshan gave a presentation on the background and implementation plans of the project. Dr OUYANG Hua and Dr Arun Shrestha from ICIMOD reported on relevant work being conducted on the Koshi River. Dr Balmukunda Regmi and Dr Narendra Raj Khanal from Tribhuvan University, Nepal, introduced relevant research activities being conducted in Nepal. Other participants introduced their work and plans. After that, an animated discussion took place and a consensus was reached on the approach.

The project started in 2009 with the title 'Research on Geo-surface Processes and Adaptation to Climate Change in Himalayan Region', and is progressing smoothly.

Joint annual review of the Post-Wenchuan Earthquake Early Recovery and Disaster Risk Management Programme held in Chengdu

A joint annual review of the Post-Wenchuan Earthquake Early Recovery and Disaster Risk Management Programme was held in Chengdu from 26 to 27 January 2010. The meeting was hosted by the United Nations Development Programme (UNDP). More than 40 representatives from the Ministry of Commerce of China, the State Council Leading Group Office on Poverty Alleviation and Development, Ministry of Water Resources of China (MWR), Ministry of Civil Affairs of China, Ministry of Housing and Urban-Rural Development of China (MOHURD), Ministry of Environment Protection of China, Ministry of Science and Technology of China, the All-China Women's Federation, China Law Society, China Institute of Water Resources and Hydropower Research (IWHR), Water Resources Department of Sichuan Province, the Beichuan Government, Royal Norwegian Embassy in China, and



Royal Embassy of Saudi Arabia in China attended the meeting.

Dr Subinay Nandy from UNDP, China, presided over the meeting and gave the opening address. Dr Nandy introduced the Post-Wenchuan Earthquake Early Recovery and Disaster Risk Management Programme and gave an overview of the progress made by the programme. He expressed a wish for further cooperation with the Chinese Government, and also hoped the

programme could provide guidance in post-earthquake recovery and disaster risk management in the future.

Mr PANG Jinwu from the MWR reported on the current progress in research on reconstruction work after the earthquake, especially the work done on the safety of hydraulic structures. He also introduced the strategy and plans for the next stage of the project. Dr Gunnvor Berge from the Royal Norwegian Embassy in China expressed her appreciation of the achievements made during the previous stage of the project research. Then experts responsible for the project reported on the annual review of the progress of the research.

Mr HU Xiao, Director-General of Earthquake Engineering Research Center, IWHR, gave a detailed introduction on the implementation of the project, the benefits for the people in the disaster area, and on results sharing and exchange on an international level.

All responsible agencies then held an in-depth discussion on the implementation of follow-up projects. Representatives from different organisations expressed their high regard for the work done by IWHR.

The second Japan-China Symposium on Measures Against Sediment Disasters Caused by Earthquakes

The second Japan-China Symposium on Measures Against Sediment Disasters Caused by Earthquakes was held in Tokyo, Japan, on 2 February 2010. The Chengdu Institute of Mountain Hazards and Environment (IMHE), CAS, attended the meeting as representatives of China. Dr OU Guoqiang made a presentation on 'Counter measures for Sediment-related Disasters Induced by Wenchuan Earthquake'. Professor FAN Jianrong made a presentation on 'Investigation and Monitoring Method for Disasters Induced by Wenchuan Earthquake Based on Remote Sensing'.

After the '5.12' Wenchuan Earthquake, the IMHE and Japan Society of Erosion Control Engineering signed a five-year collaborative plan on measures to deal with sediment disasters caused by earthquakes. The main objective of the Symposium was to discuss how to enhance collaboration in the implementation of the project and how to keep the project running smoothly.

During the meeting, representatives visited the Hyogo Earthquake Engineering Research Center of the National Research Institute for Earth Science and Disaster Prevention, Disaster Reduction and Human Renovation Institution and Civil Engineering Research Laboratory. Representatives also discussed the 3-D Full-Scale Earthquake Testing Facility, Quick Acquirement of Dammed Lake Disaster, Dam-break Model Test, Post-earthquake Reconstruction, and other topics of mutual interest.



UNESCO to be engaged in Third Pole Environment project

UNESCO/SCOPE (Scientific Committee on Problems of the Environment) has expressed interest in being involved in the Third Pole Environment (TPE) project initiated by leading scientist Dr YAO Tandong of the Institute of Tibetan Plateau Research, CAS, and plan to jointly push forward the project. On 9 February, UNESCO/SCOPE invited Prof YAO Tandong to introduce the TPE at the Third Pole Environment Meeting at UNESCO headquarters in Paris.

Prof LV Yonglong, Director of the Bureau of International Cooperation, CAS, and Chairman of SCOPE, Dr HUANG Tianhua, Representative of the Permanent Delegation of China to UNESCO, and Prof MA Yaoming, Vice-Director of the Institute of Tibetan Plateau Research, CAS, attended the meeting. The meeting attracted a number of division directors and programme secretaries from the natural science divisions of UNESCO. Among them were Dr Natarajan Ishwaran,

Director of the Division of Ecological and Earth Sciences and Secretary of the Man and Biosphere Programme, Dr Shahbaz Khan, Chief of the Water and Sustainable Development Section in the Division of Water Sciences, Dr Siegfried Demuth, Chief of the Hydrological Processes and Climate Section in the Division of Water Sciences, Dr J Alberto Tejada-Guibert, Director A.I. of the Division of Water Sciences and Secretary of the International Hydrological Programme, and Dr Robert Missotten, Chief of the Global Earth Observations Section and Secretary of the International Geoscience Programme in the Division of Ecological and Earth Sciences. Mrs Véronique Plocq Fichelet, the Executive Director of SCOPE, also attended the meeting.

During the meeting, Prof YAO Tandong presented the TPE project to UNESCO staff, elaborating on scientific questions, implementation approaches, organisation, and the first TPE workshop in Beijing. Dr Sarah Gaines, Assistant Programme Specialist in the Division of Ecological and Earth Sciences of UNESCO, and Dr Anil Mishra, Programme Specialist in the Division of Water Sciences, also took turns to report on the work that UNESCO is doing on the Third Pole.



A mutual understanding was reached that study of the Third Pole environment is of common interest and global significance and should be promoted by UNESCO/SCOPE on an international scale, although concrete approaches and management require further discussion.

The Prime Minister of Nepal calls for an alliance of mountain countries at a meeting of ministers during COP15

The International Centre for Integrated Mountain Development (ICIMOD) and the Center for International Climate and Environmental Research (CICERO) held a joint side event on the occasion of the UNFCCC COP15 conference on 16th December on 'Facing the Challenges: Climate Change in the Greater Himalayas'. The event brought together high level dignitaries from the Hindu Kush-Himalayan countries to discuss and elaborate on the formidable challenges facing this unique and vulnerable, but vitally important, region, and ended with a call by the Prime Minister of Nepal for an alliance of mountain countries to enhance cooperation and ensure better representation of mountains in the UNFCCC process. Guests of honour included the Prime Minister of Nepal, Mr Madhav Kumar Nepal; the Minister of Agriculture and Forestry of Bhutan, Dr Pema Gyamtsho; the Minister of Forest and Soil Conservation of Nepal, Mr Deepak Bohara; the Minister of Environment of Afghanistan and Director General National Environmental Protection Agency, Mr Mustafha Zaher; the Executive Director of the Global Change Impact Studies Centre, Pakistan, Dr Arshad Muhammad Khan; and the Minister of Environment and Development of Norway, Mr Erik Solheim. Several other important dignitaries from the region also participated, including a number of Members of Parliament from India and Nepal. The Director General of ICIMOD, Dr Andreas Schild, and the Director General of CICERO, Dr. Pål Prestrud, presented the case of the Himalayas, highlighting the importance of adaptation within the region and the dire consequences of not addressing climate change.

The purpose of the side event was to allow the governments of the Hindu Kush-Himalayan region to present the situation of their countries on climate change, and to explain the priorities of their country in relation to adaptation. The delegations had only three minutes allocated in the main plenary, thus the ICIMOD-CICERO event provided an ideal platform for them to put their case to the public at COP 15. In contrast with the caucuses for Africa and the small island states, there was no advocacy for or representation of the interests of the mountain countries. The attention of the international community should be drawn to the adaptation challenges faced by mountain populations and ecosystems.

The Prime Minister of Nepal regretted that the mountain agenda was not more prominent in the COP15 negotiations. The mountains and the issues related to them are understated in the UNFCCC texts. The Prime Minister launched the idea of an alliance of the mountain countries to enhance cooperation and improve representation in the UNFCCC process. He also announced the intention of the Government of Nepal to host a ministerial level conference on climate change in mountain countries in 2010, and invited the COP15 delegates from mountain countries to attend an informal meeting on the same day hosted by the Government of Nepal to start the process of initiating formation of an alliance of mountain governments.

The Ministers from Nepal and Bhutan made clear that global warming is causing glacial melting which in turn has negative impacts on water availability, agriculture, and livelihoods and is a threat to infrastructure development.

Pakistan drew attention to the high dependency of the whole agricultural production on irrigation fed by the Indus river system. The water of the Indus is drawn during spring, the peak season for irrigation from snow and glacier melt.

The Minister of Environment of Afghanistan described eloquently the loss of biodiversity (the gradual disappearance of the snow leopard and the Marco Polo sheep) and the negative consequences of glacier melt on the Amu Darya.

The Minister from Norway, a prominent donor country in the region, expressed solidarity with the governments from the Hindu Kush-Himalayan region that are facing the brunt of global warming. He showed the keen interest of his government to support research in the region and to expand cooperation with regional resource centres.

It was clear that the governments in the region were also able to identify ways to reduce climate vulnerability

in their countries by climate proofing development endeavours. But the means to do so are limited, as acknowledged collectively. All delegations recognised a deficit of specific knowledge and information. They emphasised the need for regional cooperation in the exchange of data, common learning, and enhancing adaptation in a transboundary approach. They commended the role of ICIMOD as a regional facilitator and supporter.

Prof. Ding Zhongli highlights climate change: An international responsibility system must be based on principles of fairness

Prof DING Zhongli, Vice-President and academician of CAS, addressed the Copenhagen Press Center on 16 December 2009. The main points are summarised in the following.

One of the important and challenging issues at the Copenhagen conference is the long-term goal of emission reduction and the allocation of emission rights in the future. The first and foremost to be noted is that the stipulated target of CO₂ concentration is sure to frame the estimated amount of CO₂ emissions from fossil energy utilisation and cement production. Emission reduction and the allocation of emission rights are in fact aspects of the same thing, on which I would like to say something based on my research.

Proposals by the Intergovernmental Panel on Climate Change (IPCC), Group of Eight (G8), and Organisation for Economic Co-operation and Development (OECD) are less than fair. We are mainly referring to the Fourth Evaluation Report of the IPCC and to the proposals of the G8 nations and the United Nations Development Programme (UNDP) under negotiation. What would

happen if the allocation of emission rights was determined in accordance with these proposals? The analysis is as follows.

In accordance with three proposals by the IPCC, G8, and OECD, the per capita emission rights of developed countries for the period from 2006 to 2050 are 2.3~5.4 times more than those of the developing countries. This is unfair because it ignores the great difference in emissions in the past – by a factor of 7.54; lacks consideration of the wide difference in emission loads in the future; ignores the fact that the emission peak period for developed countries (2010) and for developing countries (2020) is too close; and does not take into account the enormous difference in base-year emission loads (4.8 times in 1990, and 4.4 times in 2005).

Who should be given priority in terms of long-term emission rights?

Who should be given priority in terms of long-term emission rights is the next question. We hold that policy support should definitely be provided to developing countries, not only because of emission problems in the past, but also because of the inevitable emissions by developing countries during their development for urbanisation, industrialisation, infrastructure construction, and welfare promotion. Compared to this, large proportions of the emissions of developed countries are of an extravagant nature. Therefore, I come to this understanding: that these three proposals, if accepted as the international protocol, will constitute a rare and unfair treaty in human history, and will widen the gap between the rich and the poor.

The trap designed by developed countries

We have discovered a great trap in these proposals for emission reduction, involving such elements as the hypersensitivity of temperature to CO₂ concentration, a threshold value of 2 degrees centigrade, a goal of 450

ppmv concentration, an emission space of about 800 billion tons of CO₂, the fact that the developed countries take the lead in reducing emissions, gaining 44 per cent emission space for less than 1.5 per cent of the world's population, while the developing countries who don't have medium-term goals only possess a small amount of emission space after 2020. The developing countries who haven't realised this problem have been stressing the medium-term goal of 40 per cent emission reduction by developed countries. As a matter of fact, developed countries will leave very limited emission space for developing countries, even if they realise their medium-term goal.

What we should highlight is a complete international responsibility system based on the principles of justness and fairness to control the increase in concentration of CO₂. The proposals of the IPCC, G8, and OECD are not established on these principles, and should not serve as the foundation for negotiations on the issue of long-term emission reduction.

The US shouldn't 'bind' China on the establishment of a long-term goal for emission reduction

The past emission load and current emission load of China and the US are not comparable: 1) between 1900 and 2005, the emission load per capita of the US was 20 times more than that of China; 2) the recorded emission load of the US is more than 5 times that of China; and 3) the current per capita emission load of the US is 4 times more than that of China.

Only after the establishment of a higher goal for emission reduction will the US be justified in 'binding' China. It is known that the goal proposed by the US is 17 per cent less emission load in 2020 than in 2005, and 83 per cent less emission load in 2050 than in 2005. The test carried out by us shows that the per capita CO₂ emissions of the US are 150 tons between 2006 to 2050, provided that the result is calculated



in accordance with its population in 2005. The concentration of CO₂ in the air would reach 600 ppmv in 2050 if all the countries worldwide emit CO₂ like the US. It is sure that the future per capita emissions of China will be far less than 150 tons. Thus, the US would be in an extremely passive position if China carries out the 'anti-binding' tactics and comes up with the goal that China will spare no efforts to control the future per capita emission within the range of 70 per cent of that of the US in the same period. Personally, I believe that China has the ability to realise this goal. Therefore, the developed countries should come up with a higher goal for long-term emission reduction instead of 'binding' developing countries such as China. Otherwise, they will put themselves into difficulties of their own doing.

Developed countries shouldn't deny their impact on climate change

Firstly, it is dangerous to suggest that these countries will take a negative attitude towards a series of important principles such as the principle of 'common but differentiated responsibility' and 'the polluter pays' principle.

Secondly, developed countries shouldn't deny their impact on climate change, as the high level of emissions, part of which was caused by their forefathers, is mainly attributive to people who are alive today.

Thirdly, the increase in concentration of CO₂ is inherited and the said inheritance has a close relationship with the establishment of a country's infrastructure and improvement of its welfare.

Furthermore, the negative impact of developed countries on climate change has caused a loss equivalent to USD 5,000 billion dollars. In the future, emission rights will become a scarce commodity under the premise of strict control of the increase of concentration of CO₂. In that way, developed countries are actually denying their debt, equivalent to USD 5,000 billion dollars, if they deny their impact on climate change.

Finally, developing countries must stick to discussing the issue of the negative impact on climate change caused by developed countries.

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



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第三极环境（TPE）国际学术研讨会在京顺利召开

2009年8月14-16日，来自第三极及周边地区（印度、尼泊尔、巴基斯坦、塔吉克斯坦、日本、中国）和西方发达国家（美国、加拿大、德国、意大利、瑞典、荷兰和挪威）等15个国家共计70位科学家汇集北京召开了主题为“第三极环境 Third Pole Environment (TPE)”国际学术研讨会，本次研讨会是由中国科学院支持，青藏所姚檀栋院士组织和发起。

会上各国科学家们交流了国际上第三极环境最新研究进展（共有20位外籍学者作了专题学术报告），讨论开展第三极环境国际计划（TPE）的科学意义、关键科学问题及其未来研究目标和内容，并提议通过了TPE项目的执行计划、阐明了TPE项目的管理和组织机构。

经过讨论，会议提出了当前TPE项目急需解决的五大关键科学问题：1）过去不同时间尺度上第三极地区曾发生了哪些重大生态环境变化事件，是怎样变化的？2）第三极地区的能水循环及其组成部分

有哪些特征，与印度季风有什么联系？3）全球变暖的背景下，第三极地区（特别在高海拔区域）的生态系统将发生怎样的变化？4）冰川退缩和冰川物质平衡将如何影响能水循环及其组成成分，它们对环境变化有哪些影响？5）如何应对与冰川-湖泊相互作用引发的危害？

会议确定了TPE项目的总体目标是，深化当前对第三极环境的理解，吸引相关研究结构和学术团队关注第三极地区“水—冰—气—生态系统—人类活动”之间的相互作用研究，揭示第三极环境变化过程、机制及其影响和对全球变化的响应，为提高人类对环境变化的适应能力、实现人与自然的和谐相处服务。科学目标是，从地球系统科学角度上揭示第三极大气圈、冰冻圈、水圈、生物圈和岩石圈之间的相互作用及其对全球的影响。主要研究内容包括五个方面：1）不同时空尺度上古环境的变化特征；2）第三极冰冻圈—水圈相互作用及相关的气候灾害；3）第三极能水循环；4）第三极地区的环境影响与生态系统的反馈；和 5）人类活动对第三极环境的影响。



会议确定了TPE项目的多项执行计划，重点是组织区域性多国联合考察断面、建立区域对比观测台站，组织以大学、研究所或野外台站为基础的青年人才暑期培训学校，并确定首要任务是组建由多个国家的科学家组成的学术委员会、设立TPE项目办公室。TPE学术委员会的主要职责是提出科学问题建议，阐明研究目标，评估研究方案，协调各国合作协议和任务。TPE项目办公室主要管理项目的执行，包括组织项目、召开国际研讨会和青年人才暑期培训学校，以及维护TPE网站、通讯联系和新闻发布。

本届学术会议最后提议由姚檀栋院士、美国Lonnie G. Thompson教授和德国Volker Mosbrugger教授联合协调、提名和组建TPE学术委员会，在中国科学院青藏高原研究所北京部设立TPE项目办公室。本届学术会议提议2010年和2011年TPE学术研讨会将分别在在尼泊尔加德满都和印度新德里举办。

TPE的启动体现了以我为主的国际青藏高原合作研究的新格局。

ICIMOD“第一届参与式流域综合管理国际培训班”在加德满都举行

2009年10月5-15日，国际山地综合发展中心（ICIMOD）在尼泊尔加德满都举办了第一届参与式流域综合管理国际培训班。

此次培训共有来自阿富汗、缅甸、不丹等12个国家，共计20名学员参加，旨在加强培训者参与式流域综合管理的概念和实用知识，熟练掌握应用各种参与式流域综合管理的方法及工具，并将此技术加以推广。

培训的内容主要包括介绍参与式流域综合管理的内容，分析参与式流域管理的角色、重要性和所面临的问题，使学员熟练掌握其保护技术与对策以及在参与式流域综合管理中社区工作所涉及到的过程和问题；其次，介绍社区参与式的流域综合管理计划，包括参与式流域综合管理的基本知识和不同的工具。此外，在培训中还

介绍了参与式流域综合治理有利的框架方面的内容，如政策，地方措施和生态补偿等。

山地所西藏高原生态环境与发展研究室范继辉助理研究员赴加德满都参加了此次培训。通过小组讨论、野外实践，参会人员相互交流心得体会，进一步明确了该领域的工作方向与方法。

国际山地中心第40届理事会在成都成功召开

国际山地综合发展中心（ICIMOD）第40届理事会会议于2009年11月16-20日在成都召开。

这是继1999年ICIMOD在成都召开第28届理事会后又一次选择成都作为一年一度的理事会会议举办地。会议由国际山地中心中国委员会（CNICIMOD）协办。来自ICIMOD成员国的国家理事、独立理事、国际资助团体和ICIMOD及其部门的负责人等50余名外国专家和官员到蓉参会。ICIMOD的中国合作伙伴代表及CNICIMOD成员单位代表近30人参加了会议。CNICIMOD副主席姚檀栋院士率团出席了会议，并在理事会会议上受中委会主席丁仲礼院士的委托，接任了下一年度理事会轮值主席。成都市人民政府副秘书长向志勇应邀到会并代表市政府致辞。中国科学院副院长，CNICIMOD主席丁仲礼院士出席了ICIMOD答谢晚宴并与来宾进行了广泛交流。

本次会议除理事会例行议程外，还进行了两天的中心日活动，主要针对ICIMOD与中国的合作进行了广泛的交流。参会



代表报告和讨论了ICIMOD在中国实施的项目开展情况。中国科学院国际合作局，CNICIMOD和ICIMOD联合举办了《关注山地 支撑未来》专题报告会，并以墙报的方式展示了中国在山区的环境保护和發展方面所做的部分工作。

在答谢晚宴上，ICIMOD主任Schild博士代表ICIMOD对中国在与ICIMOD合作中的积极作用表示赞赏，对中国科学院在兴都库什喜马拉雅（HKH）地区积极进行项目设计和实施表示欢迎和受到极大鼓舞；对中国委员会秘书处为这次会议所做的出色的组织工作表示了衷心的感谢，并向中国委员会赠送了象征中国和南亚地区传承文化源远流长的珍贵礼物。

会前还组织参加理事会的各国代表分别到四川红原和汶川映秀考察了牦牛和草种基地的项目实施及地震灾后重建情况。

国际山地综合发展中心中国委员会会议在成都举行

2009年11月18日，国际山地综合发展中心中国委员会（CNICIMOD）会议在成都举行，讨论通过了CNICIMOD的组织结构、人员组成和章程，并就下一步工作进行了深入探讨。CNICIMOD副主席姚檀栋院士、秘书长邓伟研究员、中科院国际合作局王振宇处长、国际山地综合发展中心（ICIMOD）独立理事张林秀研究员、ICIMOD水与灾害管理部门主任欧阳华研究员以及来自CNICIMOD各成员单位的委员、代表近三十人参加了会议。会议由邓伟秘书长主持。

会议首先听取了秘书处办公室胡平华主任对CNICIMOD成立以来工作进展的汇报。报告从CNICIMOD组织建设、相关会议活动、信息的收集和宣传、青年人才培养与交流、合作项目等方面进行了汇报。目前，CNICIMOD工作已从简单的与ICIMOD开展联系、协助等方面合作，转移到以ICIMOD为平台，联合与组织有关成员单位共同提升科研影响力、支撑力，适应



气候变化的区域可持续发展方面上来。

邓伟秘书长就建议草案进行了详细介绍。CNICIMOD章程建议草案从务实和开放的角度，强调了条例的指导性和可行性。CNICIMOD成员单位与委员的确定中，重点考虑了与ICIMOD有合作基础、具备条件的科研单位与人员，以及相关政府部门、主管单位。力求CNICIMOD的成员结构具有代表性，能以此为平台联系山地研究和管理领域的科研单位、政府机构和学术团体的研究力量，推动山地科学发展。

王振宇处长指出，成立CNICIMOD一方面是为更好地协调整合国内相关领域的研究力量，对口促进与ICIMOD的国际合作，提升我国在ICIMOD的作用和影响。另一方面是为更有效地利用ICIMOD的平台，以此推动国内山地研究，扩大对外交流与合作。

针对成员单位的组成、CNICIMOD的合作方式、内容、机制等方面具体问题，

与会成员展开了充分的讨论，提出了建设性建议，最后一致通过了CNICIMOD机构、人员组成和章程的基本框架。

会议全体成员还就CNICIMOD下一步工作进行了深入探讨，认为下一步工作要结合中国山地大国的国情，从山区振兴关乎中华民族的伟大复兴的高度，提升CNICIMOD在科学研究、科技信息传播、决策咨询等方面的科技支撑能力和科普宣传等方面的社会影响力。

ICIMOD水与灾害管理部门主任欧阳华研究员就加大青年科技人员对外交流，如何在国际合作、国内合作两个方面发挥好CNICIMOD平台作用，如何展示中国发展的成果和科技软实力、提升我国的国际影响等方面提出了重要的指导建议。中科院地理所张懿铨研究员建议，CNICIMOD可以联合相关学会的有关分会开展年度学术会议，扩大山地领域科技工作者的交流范围。水利部水文局副局长林祚顶建议针对山区问题召开专题学术讨论会，提升专家、公众、国家层面对山区发展问题的关注。

CNICIMOD副主席姚檀栋院士明确提出，CNICIMOD的工作要在促进区域合作方面多做努力，创新合作机制，加强综合研究能力建设，不断扩大国际学术影响力。

国际山地综合发展中心中国委员会会议在全体与会者热烈、友好、充满建设性的讨论中结束，会议顺利完成了既定议程，取得了圆满成功。此次会议取得的成果，将进一步推动CNICIMOD的组织建设，进一步加强我国与ICIMOD在相关领域的合作。

国际山地中心中委会秘书处开展国际山区日宣传活动

“国际山区日”作为联合国一个特殊的纪念日，它的发起可以追溯到1998年11月的联合国大会，在这次大会上，联合国将2002年定为“国际山地年”，以强调山地生态系统在提供诸如水资源、森林产品等物资，以及提供生物多样性的稀有物种保护区、碳和土壤营养物的储存地、旅

游场所等方面的重要作用。随后，在2002年即“国际山地年”，联合国大会指定从2003年起的每年12月11日为“国际山区日”，同时把联合国粮农组织指定为国际山区年的领导协调机构并被委任负责组织国际山区日的纪念活动。

为了突出全球山区生态系统的重要性，不断提升对山区社会独特需求的重视，每年的“国际山区日”都有一个鲜明的主题。2003年12月11日作为第一个“国际山区日”，以“山区：水源地”为主题，突显了山区作为“自然水塔”的重要地位；2004年以“和平：山区可持续发展的关键”为主题，强调了“和平”对山区可持续发展的重大意义；2005年以“旅游：减缓山区贫困”为主题，突出了“旅游”在减缓山区贫困中的重要作用；2006年以“为了更好的生活，经营管理好山区生物多样性”为主题，阐明了维护“山区生物多样性”与人们构建美好生活的生态关系；2007年“国际山区日”的主题被定为“应对变化：山区气候变化”；2008年“国际山区日”的主题被定为“山区食品安全”。

2009年的国际山区日主题是“山区灾害风险管理”，旨在提高人们对山区多发的自然危险和山地社区高度脆弱性的认识。国际山区日促使人们关注可持续农业、牧场和林业规范，将它们视为减少风险的主要内容和制定国家综合战略方针的必要措施。

山区是危险的地方。许多山地社区的生活受到地震、火山爆发、雪崩、滑坡和山洪、泥石流的威胁。人们选择在这种脆弱环境中生活的原因很多，涉及亲属和社会关系、文化上不同的风险概念，也包括贫困这一同等重要的因素。

为宣传“国际山区日”，国际山地中心中国委员会秘书处响应联合国粮农组织森林管理司的号召组织了宣展活动，制作了宣传活动主题展板，准备了相关资料，有关国际山地中心简介、灾害管理、气候变化、山区发展等方面以及中委会近两期简报等相关资料几乎全部发放完毕，显示出科研人员对山区的高度关注，达到了很好的宣传效果。

中科院国际合作重点项目工作研讨会在山地所召开

2010年1月17-18日，中科院国际合作重点项目《气候变化影响下喜马拉雅地区山地地表过程与区域适应对策前期研究》工作研讨会在成都山地所召开。尼泊尔特里布万大学(Tribhuvan University) Dr. Balmukunda Regmi教授、Dr. Khanal Narendra Raj教授，国际山地中心欧阳华博士，Dr. Arun Shrestha，以及项目组专家参加了会议。会议由项目主持人中科院地理所张懿铨研究员主持。

国际山地中心中国委员会秘书长、项目主持人邓伟研究员首先在研讨会上致辞，对来自国内外的专家们表示欢迎和感谢，并希望各位专家积极为项目的顺利开展交流信息和建议。刘林山博士介绍了项目的背景及进展情况。欧阳华博士和Arun博士介绍了国际山地中心专门为配合项目的开展启动了相应的项目，并制定了项目实施草案。Khanal Narendra Raj和Balmukunda Regmi博士介绍了尼泊尔方面在本项目选定的试点流域所做的研究工作和流域的背景情况。项目组上官冬辉博士介绍了研究区冰川变化调查情况，陈宁生研究员介绍了研究区冰湖与冰湖泥石流调查现状，江建平研究员介绍了研究区生物适应性研究进展。参会者还围绕双方合作的具体工作实施计划进行了详细讨论和修改，并对项目下一步具体工作计划安排达成了共识。

为期两天的工作交流会议达到了预期目的，为如期实施开展国际合作研究落实了合作伙伴，建立了联系，促进了项目工作进展。

UNDP汶川地震灾后恢复重建暨灾害风险管理项目年度总结大会在四川成都召开

2010年1月26-27日，UNDP 汶川地震灾后恢复重建暨灾害风险管理项目年度总结大会在四川成都召开。

本次会议由联合国开发计划署(UNDP)主办，来自项目合作单位的商务部国际经济技术交流中心、国务院扶贫办、水利部、民政部、住房与城乡建设部、环保部、科技部、全国妇联、中国法学会、中国水利水电科学研究院、四川省水利厅、北川县政府，以及项目支持单位的挪威驻华大使馆、沙特阿拉伯驻华大使馆、英国国际发展部共40余位代表参加了会议。

会议由联合国开发计划署驻华代表处国别主任南书毕(Subinay Nandy)博士主持并致开幕词，南书毕博士首先简要介绍了汶川地震灾后恢复重建暨灾害风险管理项目设立的背景及项目实施一年多来取得的成果，特别介绍了由UNDP主导，中国政府多部门协作的项目合作关系及工作协调机制，对项目取得的成果和各方的努力表示肯定和感谢。南书毕博士表示，希望该项目取得的经验能够为中国的灾后重建和风险管理工作提供有益的经验 and 指导，也期待与中国政府各部门的进一步合作。



商务部中国国际经济技术交流中心副主任王伟黎女士在致辞中首先代表项目受益地区对联合国开发计划署及挪威、沙特、英国等项目资助国的援助和支持表示感谢，对各部委及其科研单位在项目实施过程中的工作和贡献表示高度赞扬和肯定。王伟黎副主任特别提到了中国水利水电科学研究院承担的“加强水电安全项目”成果，认为成果产出的强震监测规范是我国相关领域的第一部技术规范，对于指导抗震工作有重要意义。

水利部庞进武副总工代表项目政府合作机构致辞，庞进武副总工简要介绍了水利部在灾后重建尤其是水工建筑物抗震安全方面所做的工作及取得的进展，对中国水利水电科学研究院在该项目实施过程中发挥的作用及取得的成果表示肯定和感谢，并对项目的后续实施工作提出了要求和建议。庞进武副总工表示，希望项目各方所做的工作能够在灾后重建和风险管理中做出世界范围的贡献和影响。

“加强水电安全项目”资助方，挪威王国驻华大使馆参赞贝根沃（Gunnvor Berge）博士代表各项目资助国发表致辞。贝根沃博士表示，非常高兴地看到各项目的实施取得了预期的成果，这些成果对于指导未来的救灾和灾后重建工作具有积极的意义，尤其是在水利水电工程抗震安全方面，中国水利部门所做的工作令人赞赏。

随后，各项目的负责人分别向与会代表做项目年度回顾及成果汇报，受“加强水电安全项目”项目主任贾金生副院长的委托，项目国内首席专家，中国水利水电科学研究院工程抗震研究中心主任胡晓教授向参会代表详细介绍了项目进展、灾区群众项目受益情况以及项目成果国内国际间共享交流情况，特别介绍了国际权威专家对该项目的评价。

参会代表进行了提问和讨论。中国水利水电科学研究院作为实施机构对项目的管理和工作取得的成果得到与会代表的充分肯定。

第二届中日地震土砂灾害防治学术研讨会在日本东京召开

近日，由日本砂防学会、中科院成都山地所共同主办的“第2届中日地震土砂灾害防治学术研讨会”在日本东京成功召开。与会代表共计40余人，成都山地所欧国强研究员、范建容副研究员和黄江成博士生作为中方代表参加了本次会议。欧国强研究员和范建容副研究员分别作了题为“汶川地震土砂灾害对策研究”和“汶川地震次生灾害遥感调查与监测方法”的大会报告，受到与会专家的高度评价。

汶川“5·12”特大地震后，成都山地所和日本砂防学会签署了合作研究协议并制定了为期5年的中日地震土砂灾害防治合作研究计划，此次会议为合作研究框架下的第二次会议（第一次会议于2008年12月在成都召开），主要交流了合作研究进展情况和阶段性成果，同时深入讨论了今后的合作研究计划及其实施方案。



会议期间，部分与会代表应邀访问了防灾科学技术研究所兵庫耐震工学研究中心、人与防灾未来中心和建设技术研究所，并就大型三维震动实验、堰塞湖灾害信息快速获取、溃坝模型实验、灾后重建等问题进行了深入的讨论。

第三极环境（TPE）计划工作会议在联合国教科文组织总部召开

2010年2月9日，第三极环境（Third Pole Environment, TPE）工作会议在巴黎联合国教科文组织（UNESCO）总部召开。应 UNESCO/ 科学部和 ICSU/SCOPE 的邀请，中国科学院国际合作局吕永龙局长、中国科学院青藏高原研究所所长姚檀栋院士、副所长马耀明研究员及中国驻 UNESCO 使团副代表黄天华博士出席会议。UNESCO 方面参加会议的有生态和地球科学部门负责人 Natarajan Ishwaran 博士、水资源可持续发展与管理部负责人 Shahbaz Khan 博士、水文过程与气候部主任 Siegfried Demuth 教授、水科学部主任 J. Alberto Tejada-Guibert 博士和地球观测部主任 Robert Missotten 博士等，ICSU/SCOPE 方面的参加人是执行主任 Véronique Plocq Fichelet 女士，有关国家驻华使团的代表也参加了会议。

会上，姚檀栋所长从科学问题、实施方案、组织结构及第一次国际研讨会等方面向 UNESCO/SCOPE 官员及科学家们详细介绍了青藏所正在积极推动的国际研究计划—“第三极环境”（TPE）。UNESCO 的 Sarah Gaines 博士和 Anil Mishra 博士也介绍了目前该组织在第三极地区进行的工作。UNESCO 官员及科学家对我国主导的 TPE 计划给予了非常高的评价，双方同时就如何在 UNESCO 层面上顺利推动 TPE 计划展开了深入的探讨，并达成了共识。



尼泊尔总理在哥本哈根气候大会期间的一次部长级周边会议上呼吁建立山地国家联盟

国际山地综合发展中心（ICIMOD）和挪威国际气候与环境研究中心（CICERO）在哥本哈根气候大会期间于12月16日联合召开了一次主题为“面临挑战：大喜马拉雅地区气候变化”的部长级周边会议。会议聚集了来自兴都库什地区的重要嘉宾。会议讨论和阐明了独特、脆弱但又非常重要的地区所面临的紧要挑战。会议以尼泊尔总理大臣发出的倡议而结束：建立山区联盟以加强合作确保在联合国气候变化框架公约进程中有话语权。参会的嘉宾有：尼泊尔总理大臣 Mr. Madhav Kumar Nepal，不丹农业与林业部长 Dr. Pema Gyamtsho，尼泊尔林业和土地保护部长 Mr. Deepak Bohara，阿富汗环境部部长和环境保护办公室主任 Mr. Mustafha Zaher，巴基斯坦全球变化影响研究中心执行主任 Dr. Arshad Muhammad Khan，挪威环境与发展部部长 Mr. Erik Solheim，还有来自该区域的其他重要来宾，包括印度和尼泊尔的一些议员。国际山地中心主任 Dr. Andreas Schild 和国际气候与环境研究中心主任 Dr. Pal Prestrud 在会议上介绍了该地区的情况，强调该区域在应对气候变化方面的重要性和若不引起足够重视将产生的恶果。

周边会议的目的是让 HKH 地区的政府能有机会阐明该地区在气候变化影响下的现状和各国应对气候变化的迫切需求。他们的代表在主会上仅有3分钟的发言时间，而这个周边会议为他们提供了一个在 COP15 会议期间向公众说明他们状况的理想平台。相对于专门为非洲和岛国举行的核心会议，山地国家的利益没能得到关注和陈述。国际社会的注意力应更多地关注山区人口和生态系统在气候变化中面临的挑战。

尼泊尔总理大臣遗憾地表示在 COP15 的会议谈判中关于山区议事日程并不显著，山区和关于山区的事务在联合国气候变化框架公约中没被很好地说明。他发起成立山地国家联盟的概念以加强合作改善

在联合国气候变化框架公约进程中的话语权。他还宣布尼泊尔政府有意在2010年举办山区国家应对气候变化的部长级会议，并邀请参加 COP15 会议的山区国家代表出席,同时由尼泊尔政府主持的非正式会议启动成立山区国家联盟的议程。

尼泊尔和不丹的部长们明确表示：全球变暖正在引起冰川融化从而对水的利用，农业、生计造成负面影响并对基础设施建设造成威胁。巴基斯坦强调其农业生产对印度河灌溉系统的依赖性。印度河来自雪和冰川的融水在春天灌溉高峰季节时被抽干。

阿富汗环境部长生动地描述了生物多样性的减少（雪豹和马可波罗山羊的逐渐消失）以及阿姆河冰川融化所带来的负面影响。

作为该地区重要的赞助国，挪威的部长表示将与面对全球变暖最前沿的HKH地区国家政府站在一起，他表示了他的政府有强烈的支持和扩大在该区域的合作愿望。

显然，HKH地区的政府可以竭力为减少气候变化所带来的影响做出努力，但正如大家所知，作用和方法都十分有限。所有的代表都意识到专业知识和信息的不足。他们强调急需互相学习，信息交流和加强跨境协作。他们高度评价了ICIMOD 在该区域起到的促进和支持作用。

丁仲礼谈气候变化：国际责任体系必须建立在公平正义之上

中国科学院副院长、中国科学院院士丁仲礼于当地时间12月16日11点在哥本哈根新闻中心发表演讲，要点如下：

这次哥本哈根会议一个非常重要，但也非常具有挑战性的议题是设定长期减排目标，并对今后排放权进行分配。首先要指出，在CO₂ 浓度目标确定以后，人类可以通过化石能源使用 and 水泥生产排放的CO₂ 总量就随之而定。因此，减排和排放权分配其实是一个事物的两个方面，在这里，我想结合我自己的研究工作，对这个问题提一点看法。

IPCC方案、G8方案、OECD方案有失公允

目前在谈判当中，主要参考的是IPCC第四次评估报告，此外还有G8方案、UNDP方案等。如果照这些方案进行分配的话，将会产生怎样的后果，下面分别进行分析。

根据IPCC方案、G8方案和 OECD 方案这3个方案，发达国家在 2006~2050年的人均排放权是发展中国家的2.3~5.4倍，因此这3个方案非常不公平，表现在：其一，不考虑过去排放的巨大差异（7.54倍）；其二，不考虑未来排放的巨大差异；其三，发达国家（2010年）和发展中国家（2020年）排放高峰年时间太近；其四，不考虑基准年排放量的巨大差别（1990年为4.8倍，2005年为4.4倍）。

长期排放权该向谁倾斜

接下来需认真讨论的问题是：在长期排放权分配上，到底是应该向发达国家倾斜，还是向发展中国家倾斜。我们认为，无疑应该向发展中国家倾斜。这不仅仅是因为历史排放的问题，还因为发展中国家在发展过程中不得不产生的排放（城市化、工业化、基础设施建设、生活水平提高）。而发达国家现在排放中的一大部分已经是奢侈排放，对这3个方案，我的结论是，如果这些方案成为国际协议的话，它们将成为人类历史上罕见的的不平等条约。因为这将把目前已经形成的巨大贫富差异固定化，在道德上是邪恶的。

解读发达国家设计的陷阱

我们发现，这些减排方案中设计了一个巨大的陷阱，具体构成是：第一，温度对大气CO₂浓度的高敏感性；第二，2度阈值；第三，450ppmv目标；第四，8000亿吨左右的CO₂排放空间；第五，发达国家率先减排，不足15%的人口获得约44%的排放空间；第六，发展中国家尽管没有中期目标，但2020年后余下少量的排放空间。

对这个陷阱，发展中国家其实看得并不清楚，比如说，它们一直强调的发达国家中期40%的减排方案。其实，发达国家即使达到这个目标，给发展中国家增加的排放空间也非常有限。

我们要强调的是，在控制大气 CO₂浓度增高问题上，需要一个完整的国际责任

体系，这个国际责任体系必须建立在公平正义的原则之上。而 IPCC 方案、G8方案、OECD 方案都没有体现这个原则，因此不应该作为长期减排的谈判基础。

美国在长期减排目标设定上不能“捆绑”中国

首先，中美历史排放和现实排放上有巨大不可比性。其一，1900~2005年，两国人均累计排放相差20倍；其二，历史排放总量，美国多5倍；其三，美国目前人均排放量是中国的4倍。

其次，如果硬要“捆绑”，美国只有提出更高的减排目标，才有资格进行捆绑。我们知道，美国提出的减排目标是2020年比2005年减排17%，2050年比2005年减排83%。对此，我们做了模拟，结果是以2005年不变人口计算，美国在2006~2050年间，人均排放量为150吨碳。假如全世界都像美国这样排放，2050年的大气CO₂浓度将达到600ppmv。可以肯定地说，中国在未来人均排放上肯定会大大小于150吨碳这个“美国目标”。因此，假如中国采取“反捆绑”战术，只要提出“中国在今后人均排放量上力争控制在美国同期排放的70%之内”，美国就会非常被动。而我个人相信，中国是有能力达到这个目标的。

所以我奉劝发达国家提出更高的长期减排目标，不要“捆绑”中国这样的发展中国家，并且相信这种“捆绑”最后只会“将自己的军”。



发达国家不能否认气候债

第一，危险的信号。表明这些国家将否定一系列重要的原则，比如“共同但有区别责任”原则和“谁污染，谁治理”原则。

第二，希望发达国家注意，它们的高排放固然有一部分是他们祖辈造成的，但主要是目前活着的人排放的。当代人总不能逃避自己的责任。

第三，CO₂浓度的增加是有继承性的，这个继承性和一个国家基础设施的建设、福利水平的提高密切相关。

第四，如果要算气候债，到2005年，发达国家至少已经欠了5万亿美元的债。今后在严格控制CO₂浓度增高的前提下，CO₂排放权将成为稀缺的商品，那么，发达国家否定气候债实际上就是否认了几万亿美元的债务。

因此，发展中国家一定要坚持住，在谈判中一定要把气候债作为一个严肃的话题。

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

Xu Jianchu



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