

Newsletter

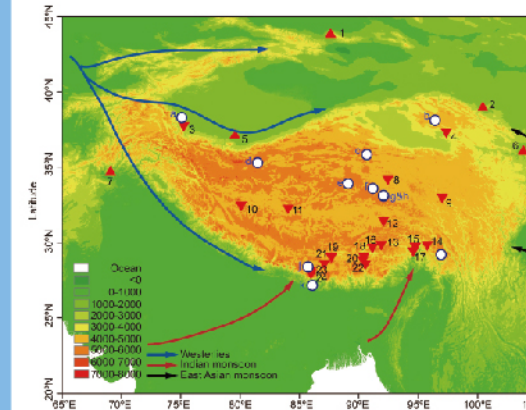
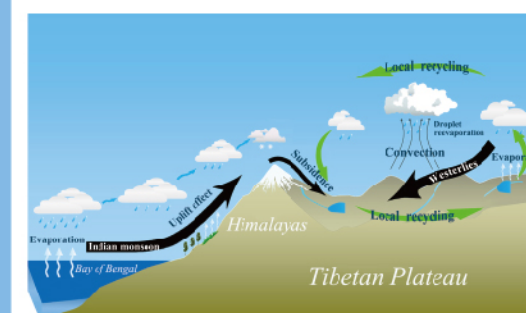
www.itpcas.ac.cn

Newsletter 21

December, 2013



Institute of Tibetan Plateau Research,
Chinese Academy of Sciences



Address:

No. 16 Lincui Road, Chaoyang District,
Beijing 100101, China

Phone: +86-10-84097081

Fax: +86-10-84097079

Web: <http://www.itpcas.ac.cn>

E-mail: itpcas@itpcas.ac.cn



Contents

NEWS

Annual meeting held for NSFC-funded key program "Multi-phase transformation of water in the Third Pole earth system and its impacts" / 1

ITP Prof. YANG Kun wins National Science Fund for Distinguished Young Scholars / 1

ITP scientist awarded NSFC Excellent Young Scientists fund / 1

Meeting held to summarize major achievements in the "Strategic Priority Research Program (B)" of the Chinese Academy of Sciences / 1

SCIENTIFIC ACTIVITIES

ITP scientists published paper in Reviews of Geophysics / 2

PNAS reports phenological study on the Tibetan Plateau by ITP scientists / 2

Sino-US joint expedition to Zangsergangri Glacier on the Qangtang Plateau / 3

TPE-sponsored sessions successfully held at 2013 AGU Fall Meeting / 4

ITP's Creative Research Group makes a successful debut at 2013 AGU Fall Meeting / 4

INTERNATIONAL COOPERATION

International Symposium on Changes in Glaciers and Ice Sheets held at ITP / 5

TPE joined hands with TiP in holding Summer School in Switzerland / 5

The second HKT-ISTP joint conference held in Tuebingen, Germany / 6

American geophysicist conducts academic exchanges at ITP / 7

TPE delegate attends UNESCO high-level panel session / 8

TIBETAN PLATEAU OBSERVATION AND RESEARCH PLATFORM (TORP) ACTIVITIES

Assessment Report of Tibetan Plateau Eco-environment Changes discussed at ITP / 8

NAMORS welcomes IGS delegates / 8

DFG officials visit NAMORS / 9

Newsletter Editorial Board:

Chief Editor: Tandong Yao
Associate Editor: Yaoming Ma
Responsible Editors: Xiaoxin Yang,
Zhi Liu, Meri E. Joswiak, Daniel R.
Joswiak



NEWS

► Annual meeting held for NSFC-funded key program "Multi-phase transformation of water in the Third Pole earth system and its impacts"

The annual meeting for NSFC-funded key program "Multi-phase transformation of water in the Third Pole earth system and its impacts" (program no. 41190080) was held at ITP on August 27-28, 2013. Officials from the National Natural Science Foundation of China (NSFC) and Chinese Academy of Sciences (CAS), and professors of participating institutions, were present. The meeting was spearheaded by Prof. YAO Tandong, PI of the program. Profs. Deliang Chen from the University of Gothenburg, Sweden, XIA Jun from Wuhan University and GAO Yanhong from Cold and Arid Regions Environmental and Engineering Research Institute (CAREERI) were invited to give reports at the meeting.

The meeting focused on issues of interdisciplinary research, especially on how to conduct comprehensive research of multi-phase transformation of water in atmosphere - glacier - lake - river. Members of different research groups discussed details of the division of tasks, data sharing, high-level model integration, comparative studies of different glacier melting models, lake evaporation model development, runoff simulation at different spatial scales, the degree of intensity of the Indian monsoon and moisture sources at larger-scales.

► ITP Prof. YANG Kun wins National Science Fund for Distinguished Young Scholars



Prof. YANG Kun of ITP is among those recently awarded the NSFC National Science Fund for Distinguished Young Scholars. The funding starts from January 2014 and will last for four years. With the new funding, Prof. Yang will focus

on studying the feedbacks of soil moisture to land-air interactions on the Tibetan Plateau, enhancing the performance of Tibetan Plateau climate models, and exploring impacts of the Tibetan Plateau land surface on China's climate.

► ITP scientist awarded NSFC Excellent Young Scientists fund



NSFC recently released the list of winners for Excellent Young Scientists Fund in 2013. ITP professor WANG Lei was granted a funding of 1,000,000 RMB for his application.

Dr. Wang is "Hundred Talents" award laureate and professor at ITP. His

research interests are mainly related to distributed land surface hydrological modeling (including the cold region hydrological processes) and integrated water resources management (flood prediction, drought monitoring and seasonal forecasts, reservoir optimization). He has published 28 papers in international journals such as *Journal of Geophysical Research*, *Water Resources Research*, *Journal of Hydrology*, *Journal of Hydrometeorology*, *Hydrology and Earth System Science*.

► Meeting held to summarize major achievements in the "Strategic Priority Research Program (B)" of the Chinese Academy of Sciences

From October 24-26, 2013, annual academic exchanges and communication were held at ITP for the "Strategic Priority Research Program (B)" of the CAS. The gathering was aimed at discussion of research achievements within the program in 2013, laying out next-year's research plan, and clarifying relevant policies in the implementation.

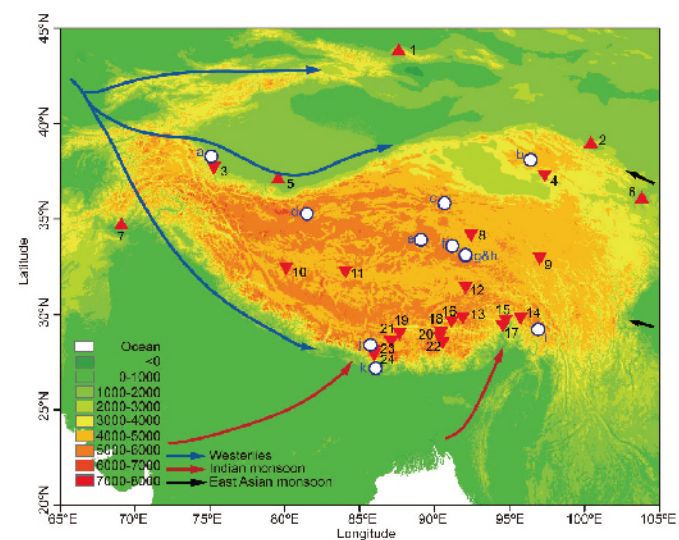
Annual summary of noteworthy breakthroughs in the program include the following aspects:

- 1) Timing, mode and process for the Indian-Eurasian continental collision

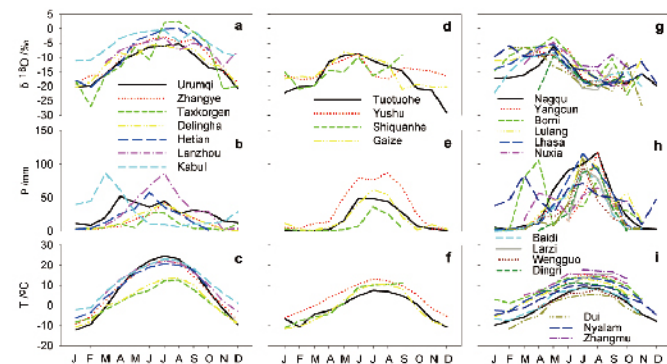
- 2) Lithospheric and geochemical evidence for the northward subduction of the Indian continental crust during Eocene, and ensuing thickening of the Plateau crust
- 3) Study of the Early Jurassic arc-magma rock belt and porphyry copper deposit in the southern Ganges
- 4) Paleo-elevation of the Zada basin
- 5) Timing of the Yangtze eastward river system formation and its tectonic and geomorphological significance
- 6) Reconstructing the evolution theory of our ape-like ancestors
- 7) Three atmospheric domains of the Tibetan Plateau revealed from precipitation stable isotopes and interaction of the westerlies and Indian Summer Monsoon influences
- 8) Evolution of the westerly-monsoon boundary on the Tibetan Plateau since Last Glacial Maximum
- 9) Effect of climate changes on phenology over the Tibetan Plateau.

SCIENTIFIC ACTIVITIES

► ITP scientists published paper in Reviews of Geophysics



A paper by ITP scientists entitled “A review of climatic controls on $\delta^{18}\text{O}$ in precipitation over the Tibetan Plateau: Observations and simulations” was published in the November issue of *Reviews of Geophysics*. The paper, reveals three modes of $\delta^{18}\text{O}$ in precipitation in the Tibetan Plateau as responses of the interaction between the Indian monsoon and the westerlies.



Seasonal patterns of observed precipitation $\delta^{18}\text{O}$, precipitation amount (P), and temperature (T) in different TP domains.

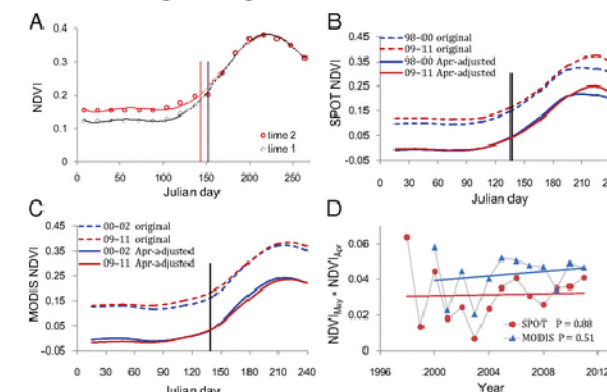
The paper uses oxygen stable isotope $\delta^{18}\text{O}$ data collected from more than 20 stations in the Tibetan Plateau (TP) over 10 years. The ($\delta^{18}\text{O}$) in precipitation is an integrated tracer of atmospheric processes worldwide. Since the 1990s, scientists have been making tremendous efforts in studying isotopic compositions of precipitation in the TP. The paper establishes a full-scale database of precipitation ($\delta^{18}\text{O}$) and uses state-of-the-art isotopic General Circulation Models (iGCMs) to evaluate the climatic controls of precipitation $\delta^{18}\text{O}$ over the TP. ITP researchers, led by Prof. Yao, conclude that the spatial and temporal patterns of precipitation $\delta^{18}\text{O}$ and their relationships with temperature and precipitation reveal three distinct domains, respectively associated with the influence of the westerlies (northern TP), Indian monsoon (southern TP), and transition in between. Precipitation $\delta^{18}\text{O}$ in the monsoon domain experiences an abrupt decrease in May and most depletion in August, attributable to the shifting moisture origin between Bay of Bengal (BOB) and southern Indian Ocean. High-resolution atmospheric models capture the spatial and temporal patterns of precipitation $\delta^{18}\text{O}$ and their relationships with moisture transport from the westerlies

and Indian monsoon. Only in the westerlies domain are atmospheric models able to represent the relationships between climate and precipitation $\delta^{18}\text{O}$. More significant temperature effect exists when either the westerlies or Indian monsoon is the sole dominant atmospheric process. The observed and simulated altitude- $\delta^{18}\text{O}$ relationships strongly depend on the season and the domain (Indian monsoon or westerlies). These results have crucial implications for the interpretation of paleoclimate records and for the application of atmospheric simulations to quantifying paleoclimate and paleo-elevation changes.

The paper can be accessed at
<http://onlinelibrary.wiley.com/doi/10.1002/rog.20023/abstract>

► PNAS reports phenological study on the Tibetan Plateau by ITP scientists

To identify the changes of green-up dates on the Tibetan Plateau during the last decade, ITP scientists SHEN Miaogen and his colleagues engaged tremendous efforts, for example, by using Normalized Difference Vegetation Index (NDVI) data derived from Moderate Resolution Imaging Spectroradiometer (MODIS) and Système Pour l'Observation de la Terre (SPOT). Their study found no evidence of continuously advanced green-up dates in the Tibetan Plateau over the last decade. This conclusion updated a previous study that revealed a continuous advance of the green-up dates during 1982-2011, which they thought was misled by “not correcting for the increased non-growing season NDVI”.



For the Tibetan Plateau, where multi-sphere interactions occur yet continuous field observations are lacking, caution should be exercised against depending solely on satellite-derived phenology, the authors proposed in the recent *Proceedings of the National Academy of Sciences of the U.S.A (PNAS)*. “Greenness vegetation indices are easily contaminated by adverse meteorological conditions and other factors, such as background changes, in particular during the green-up times when the signal from vegetation is weak.”

More details of the study can be found online at
<http://www.pnas.org/content/110/26/E2329.full>

► Sino-US joint expedition to Zangsergangri Glacier on the Qangtang Plateau

From March 23 to June 20, 2013, Chinese scientists from ITP and CAREERI, collaborated with Prof. Lonnie Thompson from the Ohio State University on a joint field expedition to the Zangsergangri Glacier in the Qangtang Plateau, central Tibet. Apart from Prof. Thompson, participating foreign experts also included Dr. Paolo Gabrielli from the Byrd Polar Research Center at the Ohio State University, Prof. Keith Mountain from University of Louisville, and Prof. Vladimir Mikhalev from the Institute of Geography, Russian Academy of Sciences. The expedition aims to study glacial status under current climate change scenarios, to understand major influencing factors on glacial variations in the Third Pole region, and to retrieve ice cores from the region to shed light on climate changes in the past 2000 years.



Chinese scientists retrieving ice cores with an independently developed ice drill



During the expedition, Global Positioning System (GPS) measurements were taken at the glacial moraines, glacial mass balance was measured, and glacial thickness was determined using ground-penetrating radar. The expedition crew also succeeded in retrieving an ice core totaling 208m in length to the bedrock at 6,070 m elevation on the glacier. The ice core is considered the longest so far retrieved by an ice drill developed independently by Chinese scientists.



Scientists doing preliminary analysis of samples in the field

The joint expedition was supported by the NSFC, Strategic Priority Research Program (B) of the CAS, Third Pole Environment Program and U.S. National Science Foundation.

► TPE-sponsored sessions successfully held at 2013 AGU Fall Meeting

The annual American Geophysical Union (AGU) Fall Meeting was held December 9-13, 2013 in San Francisco. As part of the meeting, TPE sponsored two sessions entitled "Environmental and Eco-system Changes in the Third Pole and other Mountain Regions", which were convened by TPE Co-chairs YAO Tandong (Chinese Academy of Sciences), Lonnie Thompson (Ohio State University), and Volker Mosbrugger (Senckenberg Research Center for Nature Study), together with ITP scientist Prof. ZHANG Fan.

In addition to 25 poster presentations, the session also included oral presentations by renowned scientists from institutions of the US, Germany and China,

including: Two extreme climate events of the last 1000 years recorded in Himalayan and Andean ice cores (by Lonnie Thompson), Different glacier status with atmospheric circulations in Tibetan Plateau and surrounding regions (by YAO Tandong), Influences of the climate changes and pollutants over the Asian Monsoon/Tibetan Plateau region on transport of ice, aerosols and water vapor to the upper troposphere and lower stratosphere (by Rong Fu, University of Texas at Austin), Dynamical, thermodynamical thermodynamical and hydrological effects of the Third Pole (by Peter J. Webster, Georgia Institute of Technology), and Contemporary Asian high mountain glacier mass balance estimates from GRACE gravimetry (C.K. Shum, Ohio State University).

More information, including abstracts and full presentations, can be found on the TPE website at www.tpe.ac.cn.



► ITP's Creative Research Group makes a successful debut at 2013 AGU Fall Meeting

During the 2013 AGU Fall Meeting in December, ITP professors FANG Xiaomin and ZHAO Junmeng joined hands with Dr. Eric Kirby from Oregon State University, USA, and Prof. Rainer Kind from the Deutsches GeoForschungsZentrum German Research Centre for Geosciences in Potsdam, in calling upon a session entitled "Evolution of the Northern Tibetan Plateau: Lithospheric Geodynamics, Plateau Uplift and Links to Climate

Change." This session was sponsored by the ITP's Creative Research Group, led by Prof. FANG Xiaomin who focuses on climate-tectonic interactions over the northern Tibetan Plateau.

The session consisted of 14 oral presentations, including invited lectures by An Yin, professor at UCLA and a new AGU Fellow, Prof. WANG Chengshan, member of the Chinese Academy of Sciences, and Prof. Erwin Appel from the University of Tuebingen, Germany. In addition, there were 30 poster presentations. Presentations in both forms generally summarized recent international academic achievement in studying deep and shallow tectonic structures of the northern Tibetan Plateau, their possible interactions with and influences on the Plateau uplift and climate changes.

The session at AGU provided an excellent opportunity for the creative research group to demonstrate their achievements and exchange notes with colleagues from the international academic community. Presentations by the group members aroused wide international attention. Deeper communications with their international academic peers and more outcomes are expected from the research group in the coming years.

INTERNATIONAL COOPERATION

► International Symposium on Changes in Glaciers and Ice Sheets held at ITP

During July 28-August 2, 2013, an International Symposium on "Changes in Glaciers and Ice Sheets: observations, modelling and environmental interactions" was held at ITP in Beijing. Over 172 scientists from 22 countries registered in the symposium. Among the registered participants, about 73 were from outside China.

The symposium, called upon by the International Glaciological Society (IGS), was supported by ITP, the NSFC, CAREERI, and the TPE program.



In addition to oral presentations, the symposium also consisted of two poster sessions on the afternoons of July 30 and August 1. Symposium presentations and discussions revolved around the following themes: ice caps and glaciers on earth, application of remote sensing and other techniques in glacial mass balance study, assessment of ice status on the Third Pole, ice core paleoclimatology, glacial mass balance monitoring, glacier hydrology, and glacier-related hazards and their social impacts.

► TPE joined hands with TiP in holding Summer School in Switzerland

From August 11 to 19, 2013, the third international Summer School under the auspices of the Third Pole Environment (TPE) Program and the German TiP Program (Tibetan Plateau: Formation – Climate – Ecosystems) was held in the village of Grindelwald in the Bernese Alps. Thirty-one students were selected to attend the summer school, including 10 Chinese and 11 German students, in addition to ten students from the TPE program (Nepal, India, Pakistan, Tajikistan, Kazakhstan, Kyrgyzstan, and Iran). This summer school mainly dealt with different aspects of glaciers and glaciations as well as related aspects. It provided an ideal opportunity for young scholars to cultivate friendships and get more interested in their research subjects.



The summer school started with an icebreaker excursion to the valley of the Lower Grindelwald Glacier (G. Stauch, RWTH Aachen). This glacier has the lowest glacier terminus in the European Alps and is among the most extensively-monitored glaciers in the world. The position of glacial terminus has been recorded every year since 1879. Additionally, numerous glacial landforms are preserved in the valley. The excursion provided practical and fundamental knowledge for the following lectures.

On the second day Sven Lukas (Queen Mary University, London) provided a comprehensive overview on glacial geomorphology. Special emphasis was placed on the sedimentology of glacial sediments with numerous examples from the European Alps, Svalbard, Scotland and Norway. In a practical exercise the participants measured and described the clast shape of different small clasts from the surrounding area.

The following day Douglas I. Benn (University Centre, Svalbard) introduced several concepts in glaciology. Topics ranged from glacial mass balance and heat transfer to glacier thermal regime and glacial hazards. He also presented some of his research results from the glacier ice – glacier bed interaction from Svalbard as a special highlight.

On Day 4, LI Zhongqin, professor at CAREERI of CAS, gave a lecture about research programs at different Chinese glaciers. ITP technical staff QU Dongmei and Prof. ZHANG Fan introduced, respectively, ice core stable isotope measurement and the TPE program. Day 5 and

Day 6 witnessed lectures on dendrochronology by Achim Bräuning (University of Erlangen) and introduction to time series analysis by Manfred Muddelsee (Climate Risk Analysis, Hannover). Dr. Bräuning touched upon the subject from the basic wood anatomy and the dating of tree rings, and then explored possible interplays between tree rings and climate parameters. He also introduced some principles in tree ring sampling during a short field trip to nearby forest. Dr. Muddelsee explained the different parameters of palaeoclimate time series before elaborating on different analysis concepts and methods including persistence models, bootstrap intervals and regression analysis.



Field excursion during the training.

The summer school also included an excursion to the nearby Jungfrauoch and a barbeque during the finale. Afterwards, all participants were invited to participate in the 2013-HKT-ISTP Conference (28th Himalayan Karakorum Tibet Workshop and 6th International Symposium on Tibetan Plateau Joint Conference) in Tübingen, Germany, from August 22 to 24.

► The second HKT-ISTP joint conference held in Tuebingen, Germany

From August 22-24, 2013, the 2013-HKT-ISTP Conference was held in Tübingen, Germany. The conference was hosted by the University of Tübingen, and jointly sponsored by ITP and the China Society on

Tibet Plateau.

Prof. Bernd Engler, Rector of the University, and Mr. Boris Palmer, Mayor of Tübingen welcomed participants at the opening ceremony. In the following plenary session, Profs. Paul Kapp of the University of Arizona, YAO Tandong of ITP, Gerard Roe of Washington State University and Andreas Mulch of Senckenberg Research Institute and Natural History Museums gave presentations to address issues on, respectively, “The Cenozoic Subduction History of Greater Indian Lithosphere Beneath Tibet”, “Glacial variations in response to climate change on the Third Pole”, “The influence of Tibet on the Climate of Asia”, and “Stable Isotope Paleothermometry of the Tibetan-Himalayan System”.

The joint conference consisted of two sessions, where over 200 participants from 15 countries attended. Session 1 mainly addressed geodynamics, with discussions and presentations revolving around themes such as the Early & Pre-Collisional Plateau, India-Asia Collision, Lithosphere Structure & Seismology, Large-Scale Deformation, and Crustal Doming, Exhumation and Lateral Extrusion, etc. Session 2 centered on climate, hydrology, cryosphere and ecosystems, with presentations and discussions focusing on the following themes: Pleistocene Climate, Holocene Climate & Ecosystems, Lake Systems, Cryosphere & Hydrosphere, Landscape Evolution & Geomorphology and Atmosphere & Climate Modeling.

Public lectures were also given during the conference. Dr. Solmaz Mohadjer, Director of Emergency Education



Program at Teachers Without Borders gave a talk entitled “Lessons for Life - From advancements in Earth sciences to practical geohazards awareness through schools in Central and South Asia”, and Dr. David Molden, Director-General of ICIMOD, presented a talk entitled “Unravelling Himalayan Mysteries - The Role of Science and Cooperation”.

This was the second HKT-ISTP joint conference after the first HKT 24th-ISTP 5th joint in Beijing in 2009. The third joint conference is scheduled to be held in 2017.

► American geophysicist conducts academic exchanges at ITP

Dr. Zhigang Peng, winner of the NSF CAREER Award and Charles Richter Early Career Award by the Seismological Society of America, was invited by ITP Prof. BAI Ling to conduct academic exchanges at ITP on July 2, 2013. His arrival attracted numerous research staff from ITP as well as the Institute of Geology, China Earthquake Administration.

In his report entitled ‘Improved understanding of earthquake interaction from waveform matching technique’, Dr. Peng shared with the audience his study of the two cutting-edge topics in seismology: long-period tremors and icequakes. According to his introduction, tremors occurs at the deeper part of the Earth near the Moho, which is different from the conventional earthquake.

He showed tremors currently identified as mainly located along the Pacific plate boundaries and the large strike-slip faults like San Andreas, west coast of U.S., and proposed the activity of these tremors as closely correlated with interior physical features of the deep earth. He also took an example from the remotely triggered icequake in the Arctic glacial area following the 2010 Mw8.8 Chile earthquake, and showed that the occurrence of the icequake coincided with the arrival of the Rayleigh wave. Thus he indicated that the mechanism in triggering icequakes differs from that behind the ordinary triggered earthquakes. He then suggested that further study of





icequakes is important to improve our understanding of glacial mobility.

Prof. Peng is associate professor of the School of Earth and Atmospheric Sciences, Georgia Institute of Technology. He has an academic interest in the study of high resolution imaging of fault zone structures, temporal changes of earth's properties, earthquake source properties, spatio-temporal seismicity patterns, earthquake triggering, non-volcanic tremor and slow earthquakes, and seismological studies of the earth's interior. He currently also serves as the editor-in-chief of the Seismological Research Letters.

► TPE delegate attends UNESCO high-level panel session

On occasion of the high-level panel session of the UNESCO's International Hydrological Programme during November 5-20, 2013, Prof. ZHANG Fan of the TPE program attended the session and introduced

progress of the program. Entitled 'Impact of climate change on third pole water tower and flagship station monitoring network,' Prof. Zhang briefed the participants on the TPE research focus relating to hydrology, and construction of the TPE flagship stations in the data-scarce Third Pole region. Her presentation aroused wide interest among the International Hydrological Program (IHP) officials. After the session, she also discussed with Madam Gretchen Kalonji, Assistant Director-General for Natural Science in UNESCO about the latest progress of TPE in academic research and international cooperation.

The major theme of this high-level panel session was climate change impacts on water resources and adaptation policies in mountainous regions. Participants of this session were distinguished scientists, policy makers and administrators experienced with water resource management in mountainous regions under global climate change.

TIBETAN PLATEAU OBSERVATION AND RESEARCH PLATFORM (TORP) ACTIVITIES

► Assessment Report of Tibetan Plateau Eco-environment Changes discussed at ITP

On July 27, 2013, a workshop was held at ITP to discuss and prepare for the Assessment Report of Tibetan Plateau Eco-environment Changes (ARTPEC). The workshop gathered scientists in different fields from various institutions in China, including ITP, Chengdu Institute of Mountain Hazards and Environment, Institute of Geographical Science and Natural Resources Research, CAREERI, Institute of Remote Sensing and Digital Earth and China and Tibetology Research Center.

The workshop first heard the report by Prof. XU

Baiqing on some preliminary thoughts on the ARTPEC. Scientists at the workshop then offered some suggestions to improve the draft. Suggestion highlighted the need to enhance the scientific base, and to include from the social perspective some adaptation measures.

According to Prof. YAO Tandong, the PI, the ARTPEC is one of three major tasks discussed by CAS President Prof. BAI Chunli and Mr. Baima Chilin, Chairman of Tibet Autonomous Region, as a Tibetan innovation cluster program. In implementation, qualified scientists within CAS or other institutions will be chosen to oversee the composition of each chapter. Serial reports regarding Tibetan eco-environmental issues will be produced, consisting of a science report and an advisory

report. Once completed, those reports will provide strong scientific backing for Tibetan social and economic development and improvement of human wellbeing in the region.

► NAMORS welcomes IGS delegates

An IGS delegation was welcomed to the NAMORS in Tibet shortly after the International Symposium on Changes in Glaciers and Ice Sheets in Beijing in August, 2013. Consisting of Prof. Douglas MacAyeal, Prof. Robert Bindshadler and other experienced glaciologists, the delegation was shown around the station to familiarize themselves with monitoring and observation activities in the field.

Prof. KANG Shichang presented a talk during their visit, to introduce the scientific goals and activities conducted at the station. He focused on demonstrating the observation and monitoring activities done so far related to glacial monitoring in the region.

IGS scientists were greatly impressed by the academic expedition and monitoring activities carried out at the station. They expressed intense interest to promote academic exchanges and communications among international glaciologists, and bring together Third Pole Environment experts and those engaged in scientific research on the north and south poles of the Earth for a joint study of global changes.

► DFG officials visit NAMORS

On September 5, 2013, Prof. Drothea Wagner, Vice President of Deutch Forschungs Gemeinschaft (DFG), visited NAMORS, Tibet, China. She and her delegates were accompanied by ITP deputy director Prof. MA Yaoming, and ITP Profs. WU Guangjian and ZHANG Fan.

The visit included a presentation by Prof. Wu on the development of NAMORS and its role in Sino-German joint academic research. According to his introduction, the first joint Sino-German expedition to the Nam Co region dated back to 2005, when over 40 German

scientists came to investigate and sample in the region for a preliminary understanding of lake processes, modern biological distribution, responses of modern glaciers to climate changes, among other tasks. Another milestone was marked in the summer of 2008, when scientists from ITP and Friedrich Schiller University Jena, Germany, collaborated in retrieving lake cores from Lake Nam Co and started the systematic analyses of modern lake physiology and paleoclimatology. The following summer, scientists from ITP, Rwth Aachen University, Berlin Institute of Technology and Dresden University of Technology jointly conducted field expeditions to the region, thus initiating a continuous research and observation based at the station.



Prof. Wagner highly acknowledged the role NAMORS played in advancing Sino-German joint scientific research in Nam Co, and approved the close scientific collaborations between ITP and research institutions in Germany.