



Research

Kick off Meeting of NSFC-ICIMOD Project “Mechanism and Environmental Effects on Water Quality Change in the Koshi River Basin” Held in Chengdu

Kick off meeting of NSFC-ICIMOD Project “Mechanism and Environmental Effects on Water Quality Change in the Koshi River Basin” was held in Chengdu during 15-16, April, 2018, with Chinese Principal Investigator (PI) Prof. Zhang Fan from Institute of Tibetan Plateau Research, CAS and ICIMOD PI Dr. Aditi Mukherji. Over 20 Scientists and students participated in this meeting including 5 experts for advice and suggestions consultation.

Prof. Zhang Fan presented in detail on project background, objectives, research contents and plan, budget and expecting outcomes and

achievements. Dr. Aditi Mukherji emphasized the importance of water resources in Koshi River and introduced the research plan on water resource development and management. Project members presented respectively on Persistent Organic Pollutants (POPs) distribution and risk assessment in HKH regions, dissolved organic carbon emissions from rivers caused by melting of frozen soil, glacier melting promoting mercury circulation in high altitude areas of Qinghai Tibet Plateau, temporal and spatial variation of sediment transport in the upper and middle reaches of the Yarlung Zangbo River, improved method for estimating the sediment transport of the Yarlung Zangbo River, impacts of climate change on water resources and water disasters in Koshi River Basin, etc.. Consulting experts questioned and discussed these presentations and offered

Academic Presentation from
Zhang Fan's Team



Group Photo of Zhang Fan's Team



some advice and suggestions for better implementation of this project.

This project is involved in the second round of NSFC-ICIMOD Joint Programme list. NSFC has successfully funded 20 NSFC-ICIMOD projects in total since 2016 for the purpose of combining Chinese Scientists to ICIMOD scientists as well as scientists from ICIMOD member countries for joint researches in HKH regions.

Researches Progress on POPs and PAHs Transport in Nepalese Cities

Source http://www.itpcas.ac.cn/kycg/yjcg/201806/t20180601_5020506.html

Persistent Organic Pollutants (POPs) with persistence, toxicity and semi volatilization, can be transported to any part of the world through long distance atmospheric transmission. POPs and Polycyclic Aromatic Hydrocarbons(PAHs)from emissions of South Asian region have been found in environmental mediums in the Qinghai Tibet Plateau which is considered as the Third Pole of the Earth. To make clear of the impacts of

POPs and PAHs from Nepal on the Qinghai Tibet Plateau, Prof. Wang Xiaoping from Institute of Tibetan Plateau Research, CAS, together with her PhD student BalramPokhrel conducted a series of researches on POPs and PAHs distribution modes in soil and atmosphere with three samples of Kathmandu, Pokhara and Hetauda, clarified the direction and flux of soil-air exchange by means of fugacity model, calculated the transmission distance of POPs by feature transport model, and concluded that the Himalayan and Qinghai Tibet Plateau regions would be the key receptors of the Nepal POPs.

According to the research outcomes, emissions and distributions of POPs and PAHs in atmosphere and soil show difference by different land types in Kathmandu, Pokhara and Hetauda (Figure A, Paper1). The main organochlorine pesticides(OCPs) in atmosphere are DDTs and HCHs (Figure B, Paper1) and the regions of vegetable planting and sale are the main source regions for DDTs and HCHs(Figure C, paper 1). High concentration PAHs are mainly from places of religion (incense burning), brick kiln (coal burning) and busy markets (Paper 2). In terms of soil, soil with high concentration OCPs is mainly from Kathmandu and Pokhara markets

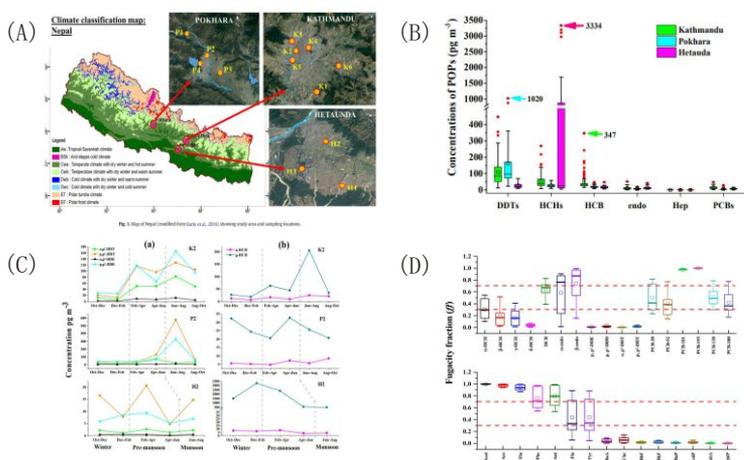


Figure A: Sampling Sites;

Figure B: POPs Concentrations in Kathmandu, Pokhara and Hetauda;

Figure C: DDT (L side) and HCH (R side) trends by seasons in vegetable planting areas (K2, P2, H2) of Nepal;

Figure D: The fugacity quotient of POPs (TOP) and PAH (DOWN) in gas and soil exchange process in Kathmandu and Pokhara.

- Paper1 link <https://www.atmos-chem-phys.net/18/1325/2018/>
- Paper2 link <https://www.sciencedirect.com/science/article/pii/S0048969717326803>
- Paper3 link <https://www.ncbi.nlm.nih.gov/pubmed/27032636>
- Paper4 link <https://www.sciencedirect.com/science/article/pii/S004565351830136X>

while soil severely polluted by PAHs is mainly from regions of tourism, religion and business (Paper 3). A Research on POPs and PAHs exchange process between atmosphere and soil in Nepal by fugacity model shows that the fugacity quotient of HCB, endosulfan and small molecules is more than 0.5, while the fugacity of DDT and macromolecule PAHs is less than 0.3, which indicates that the urban soil of Nepal is not only the "second source" of HCB, endosulfan and micromolecule PAHs but also the "sink" of DDTs and macromolecule PAHs (Figure D, Paper4). A series of researches above have clarified the distribution of POPs and PAHs in Nepal cities and the soil atmosphere exchange process. Considering the lack of POPs concentration data of Nepal, it is impossible to determine whether POPs in tropical climates can be transmitted to Himalaya region, however, this research just solved this problem and have made it easier to analyze the impact of Nepal's emissions transport on Himalaya region and Qinghai-Tibetan Plateau. The research conclusion is that the transport distances of HCB and α -HCH are more than 1,000 km (Table 1, Paper1), so the Himalayan and Qinghai Tibet Plateau regions would be the key receptors of the Nepal POPs which offers a new proof for the fact that POPs of South Asia have transported to The Third Pole.

This research is supported by CAS, NSFC and The Third Pole Plan.

	This study (km)				Previous studies				
	Kathmandu	Pokhara	Hetauda	average	*Global (a)	*Global (b)	East & south china seas**	Indian Ocean**	South Atlantic**
HCB	11836	9834	9984	10551	10600	144304	13306	345	907
α -HCH	9346	7536	6250	7710	17946	22307	3629	605	484
γ -HCH	6016	4387	4035	4812	9732	22572	3024	544	363
p, p' - DDT	1269	956	776	1000	1045	1462	1331	774	

*Shen et al., 2005 (a : estimation by TaPL3 model; b: estimation by ELPOS)

** Gioia et al., 2012

Table 1 Transport Distance of Characteristics in Kathmandu, Pokhara and Hetauda



ICIMOD-CNICIMOD Annual Meeting

Cooperation and Communication

ICIMOD-CNICIMOD Annual Meeting Held in Chengdu

ICIMOD-CNICIMOD Annual Meeting was held in Chengdu on 27 March, 2018 with bilateral participants of Director of Strategic Cooperation of ICIMOD Mr. Basanta Shrestha, Scientist of ICIMOD Prof. Long Ruijun, ICIMOD Specialist Ms. Naina Shakya, Director of CNICIMOD Secretariat Prof. Wu Yanhong and Secretaries of CNICIMOD Ms. Liu Qin and Ms. Liu Anni.

The two parties firstly summarized the events of last half year and then specifically discussed the topics of CNICIMOD new round leader nomination, ICIMOD recruitment, private sector partnership in China, 49th ICIMOD Board Meeting, what ICIMOD could do in The Belt & Road, CNICIMOD database construction, etc., and at the end of the meeting, 2018 annual plan was approved.

Mr. Basanta Shrestha and Prof. Wu Yanhong delivered a summary speech respectively and they both emphasized the importance of CNICIMOD-ICIMOD Partnership and promised to strengthen the friendship in the coming future.

2017 International Mountain Day Workshop Held in Chengdu

In order to celebrate the International Mountain Day (IMD), a workshop organized by CNICIMOD was held in Chengdu on 11 December, 2017 with the theme of 2017 IMD “Mountains under pressure: climate, hunger, migration”. Scientists from Sichuan University, Southwest Jiaotong University, Kunming Institute of Botany, CAS, Institute of Tibetan Plateau Research, CAS, Institute of Mountain Hazards and Environment, CAS(IMHE), Institute of Geology, China Earthquake Administration made presentations at the workshop and chief leaders of Chengdu office, Kunming office and Tibet office of CNICIMOD as well as Dr. Dong Qi from Bureau of International Cooperation CAS, Deputy Secretary General of CNICIMOD Secretariat Prof. Yang Yongping and DG of IMHE Prof. WenAnbang attended this workshop.

On behalf of IMHE, Wen Anbang delivered a welcome speech. He emphasized the importance of “The Rural Revitalization Strategy” proposed by President Xi Jinping, briefed the IMHE’s achievements and introduced the relationship between CNICIMOD and IMHE. He warmly welcomed all the scientists in and abroad to IMHE for scientific cooperation.

On behalf of CNICIMOD, Yang Yongping delivered a welcome speech. He reviewed the

background of CNICIMOD’s establishment, specifically introduced NSFC-ICIMOD Joint Programme and emphasized the importance relationship between IMD and SDGs. He clarified the mission of China’s mountainous scientists should be collecting mountain researches with The Belt & Road to make great contributions to “The Global Governance”.

On behalf of Bureau of International Cooperation CAS, Dong Qi also delivered a welcome speech. He suggested that natural science and social science should be combined to solve the problems related to natural resources, environment, ecology, religion and peoples in complicated mountain systems; also we should make full use of ICIMOD to boost the S&T cooperation between China and South Asian countries.

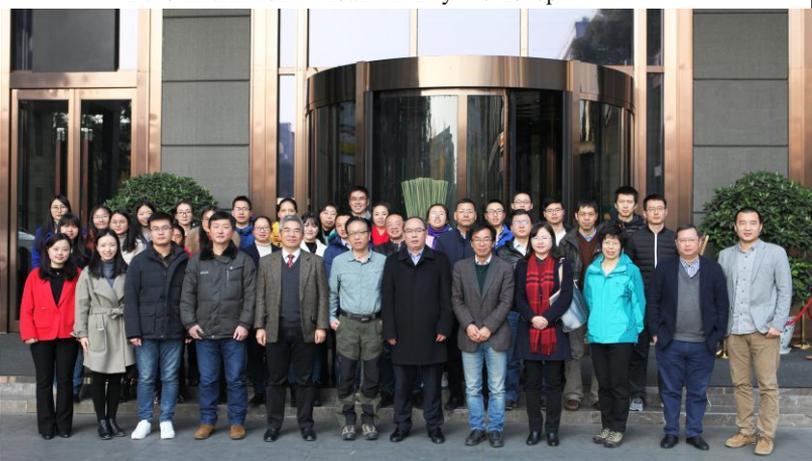
11 academic presentations have been made by scientists majoring in mountain poverty alleviation, biodiversity, mountain ecosystem, climate change, geo-hazards, mountain livelihood, land use etc., in which 6 presentations were supported by NSFC-ICIMOD Joint Programme. All the participants joined in the discussions and fully communicated with each other on mountainous hot topics.

Yang Yongping made a summary. He emphasized the significance of organizing academic activities on IMD and suggest it be designed as annual workshop every IMD. It would be of great sense for China to deeply

Prof. Wang Zhuo from Sichuan University presented on IMD 2017



2017 International Mountain Day Workshop





SDG Session

develop S & T cooperation with neighboring countries the key point of which was to turn “knowledge” into “solutions”. Therefore, a role of think tank should be taken into account when a NSFC-ICIMOD Joint Programme was conducted and only by this way the Belt & Road Initiative could be implemented smoothly and substantially.

CNICIMOD Delegates Attended International Conference on Resilient Hindu Kush Himalaya: Developing Solutions towards a Sustainable Future for Asia

CNICIMOD Prof. Wu Yanhong and Ms. LiuAnni attended International Conference on Resilient Hindu Kush Himalaya: Developing Solutions towards a Sustainable Future for Asia during 2-7,2017 which was jointly organized by ICIMOD and

Ministry of Population and Environment, Government of Nepal.

Focusing on the Sustainable Development Goals (SDGs), experts and governors on global mountain sustainable development got together to discuss the solutions to improve adaptation abilities in HKH regions, with main themes and topics of climate change, disaster risk control, water, food, energy security and sustainable ecosystem, poverty alleviation and social & gender equality, mountain livelihood; they also discussed feasible approaches to set up potential mechanism and methods in many aspects like regional cooperation, policy & organization, market & business plan, knowledge & technical network etc.

At the Deepening Regional Cooperation Session, Wu Yanhong shared his opinions on opportunities and challenges of HKH region

Group Photo of International Conference on Resilient Hindu Kush Himalaya



Prof. Wu Yanhong Presented at International Conference on Resilient Hindu Kush Himalaya



cooperation, factors and conditions for meaningful and valuable regional cooperation, and the roles of NGOs, private sectors and regional organizations in regional cooperation. Liu Anni shared regional cooperation experience of IMHE and CNICIMOD.

Wu Yanhong also joined in the dialogue of programme of climate change alleviation and adaptation in HKH region proposed by Green Climate Fund at the ICIMOD Regional Member Country Session co-organized by ICIMOD and Secretariat of the United Nations Framework Convention on Climate Change (UNFCCC).

Preparatory Meeting of 6th World Yak Conference Held in Chengdu

Preparatory Meeting of 6th World Yak Conference was held in Chengdu during 28-29 March, 2018, hosted by Tibet Treasure of Plateau Yak Dairy Co. (TPP), supported by ICIMOD, Lanzhou University, Qinghai Academy of animal husbandry and Veterinary Science, Tibet Dairy Association, and Tibet love yak society. To fully prepare the 6th World Yak Conference to be held in Xining, China, Participants from Spain, Nepal, Pakistan, France, Afghanistan and China joined in the meeting to discuss the implementation plan of the 6th World Yak

Preparatory Meeting of 6th World Yak Conference



Conference. CNICIMOD delegates were also invited to the meeting for helping ICIMOD with private sector partnership.

Yaks are mainly distributed in the plateau region of the South Asian countries. There are about 100 enterprises and research institutes engaged in the development of yak industry around the world but they rarely communicated with each other because of scattered distribution. In order to integrate the yak industry around the world, offer a platform for information sharing and dissemination, TTP and ICIMOD signed a MoU to jointly develop International Yak Industry Association and co-organized The World Yak Conference.

CNICIMOD joined in the work on building enabling environment for gender-responsive development

Invited by ICIMOD, CNICIMOD delegates including Vice Secretary General Yang Yongping, secretariat Director Wu Yanhong and secretary Liu Qin participated in a workshop on building enabling environment for gender-responsive development held in Kathmandu from 29 May to 1 June, 2018.

This workshop was sponsored by Swiss Agency for International Development, organized by ICIMOD, with the purpose to

Group Photo of Training Course on Gender Equality



implement Gender Equality. Two sessions titled “senior management promotes gender equality” and “gender theory, methodology and project deployment” were arranged for governors and experts from ICIMOD’s 8 member countries. CNICIMOD delegates made brief introduction on China’s gender status quo, analyzed the opportunities and challenges on China’s gender issues. Prof. Yang Yongping promised to further participate in the gender activities on behalf of China’s scientists.

International Workshop on Integrated Mountain Development in HKH Region under Global Change Held in Kathmandu

International Workshop on Integrated Mountain Development in HKH Region under Global Change, hosted by Sino-Nepal Joint Research Center on Geography, organized by Tribhuvan University (TU), co-sponsored by Institute of Mountain Hazards and Environment, CAS (IMHE), National Center for Science of France, Nepalese Academy of Sciences, Nepal Geographical Society, Institute of Geographic Sciences and Natural Resources Research, CAS (IGSNRR), Mountain Branch of Chinese Geographical Society, ICIMOD, and Sichuan Geographical Society, was held in Kathmandu from 21 to 25 April, 2018, with topics on effect of climate

Training Course on Gender Equality



Workshop on Integrated Mountain Development in HKH Region under Climate Change

change on mountain environment and its ecological response, mountain natural resources sustainable utilization and management, mountain natural environment and disaster management and control, mountain tourism, mountain livelihood coordination and sustainable development, and mountain development policies. Over 120 participants from Nepal, China, France, Japan and U.S. etc. attended this workshop.

Vice President of TU Prof. Tirth Raj Khaniya, Prof. Deng Wei from IMHE, Vice President of Nepalese Academy of Sciences Prof. Jibaraj Pokharel delivered a speech respectively at the opening ceremony. Keynote presentations were made by Prof. Jeff Kargel from University of Arizona, Prof. Teji Watanabe from Hokkaido University, Prof. Pitamber Sharma from ICIMOD and Prof. Fang Yiping from IMHE, respectively on mountain hazards, mountain tourism and sustainable development, mountainous city development, and mountain ecosystem and human activities coupling etc.. 49 oral presentations and 14 posters were arranged in four sessions with the subtopics on mountain climate, glaciers and hydrology, ecological response and adaptation, natural resources, environmental disaster, tourism and migration, policy research, and livelihood adaptation. NSFC-ICIMOD joint programme titled Cascading Adaptation of Rural Livelihood to Changing Environment in the

Koshi River Basin, with PI of Prof. Fang Yiping also joined in this academic communication.

Honorary Life Membership of Nepal Geographical Society awarded to CNICIMOD Member Prof. Deng Wei and Prof. Zhang Yili

Award Distribution Ceremony of Nepal Geographical Society was held in Kathmandu on 21 April 2018 for 6 distinguished scientists from China, Japan, U.S. and France for their outstanding contributions to education and researches of geography in Nepal. This is the first time foreign scientists got this honor and two Chinese scientists CNICIMOD Member Prof. Deng Wei and Prof. Zhang Yili got involved.

Prof. Deng Wei has devoted himself into South Asian geographic researches for dozens of years and conducted several research projects funded by Ministry of S&T of China and CAS. His book titled “Land cover change and its eco-environmental responses in Nepal” (English version) has been officially published by Springer. The Sino-Nepal Joint

Research Center on Geography lunched by his research team has been retitled as Mountain Branch of Kathmandu Science and Education Center with a long-term stable funding by CAS which was highly appraised by Chinese government and Nepalese government for his contributions on this international platform.

Prof. Zhang Yili, majoring in land use change and regional adaptation in plateau area, has accomplished several international projects like HKH Partnership, Koshi Basin Programme, CAS-NASA programme, etc. and has achieved tremendous progress on database construction, China-Nepal research network construction (boosting the cooperation between IGSNRR and TU with two rounds of MoU), academic exchange, joint publications etc., especially has made great contributions to bilateral young scientists cultivation and development.

Nepal Geographical Society was established in 196, aiming at developing geographical knowledge in Nepal and occupied a vital academic position in Nepal’s S&T field. Nepal Geographical Society officially got the membership of International Geographical Union (IGU) at 14th Council of IGU.

Prof. Upendra Man Mall
issuing certificate to Prof. Zhang Yili



Prof. Upendra Man Mall issuing certificate
to Prof. Deng Wei





Group Photo of Award Ceremony

TPE Session Successfully Held at EGU and AGU Meetings

From December 11-15, 2017 and April 8-13, 2018, the Third Pole Environment (TPE) program held two sessions respectively with one entitled “Third Pole Environment under Global Changes” at the annual American Geophysical Union (AGU) Fall Meeting in New Orleans and another entitled “The Third Pole Environment: hydrometeorological processes and ancient human activity” at the annual European Geophysical Union (EGU) Spring Meeting in Vienna .

The AGU session was convened by TPE Co-chairs, Prof. Yao Tandong, Prof. Lonnie Thompson and Prof. Volker Mosbrugger, together with Prof. Zhang Fan. The session

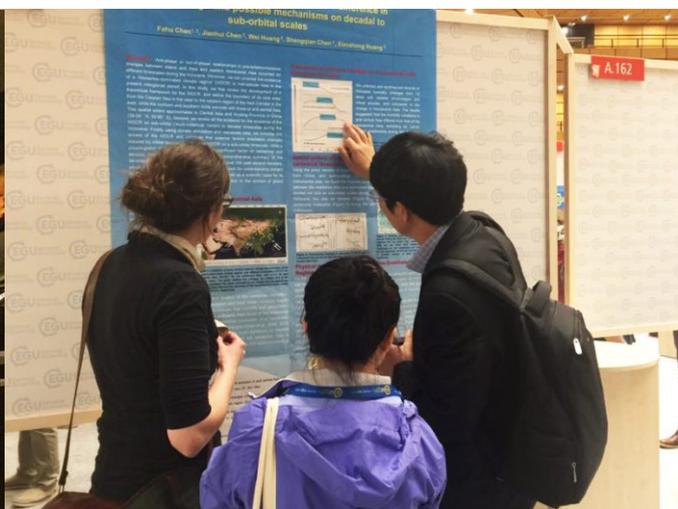
received 44 abstracts, and consisted of two oral presentation sessions and one poster session. In this session, Prof. Yongkang Xue from UCLA was invited to give a lecture on “Spring Soil Temperature Anomalies over Tibetan Plateau and Summer Droughts/Floods in East Asia”. Scientists from China, U.S., Norway, the Netherlands, Japan, France, Germany, Nepal and India joined the discussion throughout the session.

The EGU session was convened by Prof. Ma Yaoming and co-convened by Prof. Yao Tandong, Prof. Chen Fahu, Prof. Zhang Fan, Prof. Franco Salerno from National Research Council of Italy and Prof. Bob Su from University of Twente, with 12 oral presentations and 24 posters. Scientists from China, Italy, Austria, U.S., Netherlands and Nepal attended this session.

TPE Session at 2017AGU



TPE Session Posters



TPE sessions in EGU and AGU are crucial platforms for the TPE program to promote its voice worldwide.

Belt and Road Initiative

**2018 International Workshop for Young Scientists of the HKH
Session of the Second International Science Forum of National Science Organizations on the Belt and Road Initiative
(First Circular)
November 5-6, 2018 Beijing • CHINA**

Background

The Hindu Kush Himalayan (HKH) region extends 3,500 km over all or part of eight countries from Afghanistan in the west to Myanmar in the east. It is the source of ten large Asian river systems, the Amu Darya, Indus, Ganges, Brahmaputra (Yarlungtsanpo), Irrawaddy, Salween (Nu), Mekong (Lancang), Yangtze (Jinsha), Yellow River (Huanghe), and Tarim (Dayan), and provides water, ecosystem services, and the basis for livelihoods to a population of around 210.53 million people in the region. The basins of these rivers provide water to 1.3 billion people, a fifth of the world's population. The Himalayan range alone has the total snow and ice cover of 35,110 sq.km containing 3,735 cu.km of eternal snow and ice. Hills and mountains, particularly the Hindu Kush Himalaya mountain system, have always constituted places where adaptation, mitigation, and resilience are hallmarks of the people and the landscape they inhabit. Since time immemorial, the people of the Himalaya have maintained a rich cultural diversity, and have maintained food security and biogenetic diversity within the parameters of their own tradition.

Due to this trans-boundary interconnectedness of natural resources and its high relevance in regional stability and sustainable and inclusive growth, regional cooperation is imperative in the management and development of natural resources. In order to create opportunities for young scientists and scholars in the region to exchange their knowledge and experience and promote regional cooperation, the one day workshop organized by the University of Chinese Academy of Sciences (UCAS), and co-organized by Institute of Mountain Hazards and Environments, Chinese Academy of Sciences and the Himalayan University Consortium (HUC) will be a session of "Belt and Road Forum, CAS" on 5-6 November, 2018.

The Second International Science Forum of National Scientific Organizations on the Belt and Road Initiatives is to be held by Chinese Academy of Sciences (CAS) with "S&T cooperation and sustainable development for the Belt and Road Region" as the theme. The 2018 International Workshop for Young Scientists of the HKH is incorporated in the Session on capacity building, personal training and basic scientific research, with purpose to provide a platform for the young students, researchers and university and research institute administrators to exchange ideas for better collaborations.

Theme of Workshop

The workshop will be focused on climate change and sustainable development in HKH region. The major topics will include:

- Climate change
- Disaster risk reduction
- Biodiversity and stable ecosystem
- Water resources
- Livelihoods and poverty reduction
- Regional development
- Education and knowledge dissemination

Milestone

15 th August 2018	Deadline for abstract submission
1 st -5 th September 2018	Notice of abstract acceptance
15 th September 2018	Deadline for full paper submission
30 th September 2018	Deadline for registration
4 th November 2018	On-site registration
5 th - 6 th November 2018	Workshop & Activities

Venue

Yanqihu Campus, University of Chinese Academy of Sciences, Beijing, China

About the Workshop

This workshop aims at providing a unique opportunity for early career scholars in the HKH to interact with their peers in the Hindu Kush Himalayan region, share their research experience, and cultivate collegial partnership and lay foundation for future leadership in the region. Participants are PhD students, scientists and engineers mainly from countries in Resilient Hindu Kush Himalaya. Some scientists and outstanding PhD students will be invited for keynote presentation. We are expecting over 60 participants.

Paper submission and Registration

Participants are invited to submit papers on research and findings related to the theme of this workshop. Accepted papers will be published in the proceedings of "2018 International Workshop for Young Scientists of the HKH". A selection of outstanding papers will be recommended to Journal of Mountain Sciences (Impact Factor: 1.017) for publication.

The format can be found in the Appendix of this announcement.

Organizer Team**Hosted by:**

University of Chinese Academy of Sciences (UCAS)

Institute of Mountain Hazards and Environments, Chinese Academy of Sciences (IMHE)

Co-Organized by:

Bureau of International Co-operation
Chinese Academy of Sciences

International Centre for Integrated Mountain Development (ICIMOD)

Chinese Committee on International Centre for Integrated Mountain Development (CNICIMOD)

Co-Chair Person:

Professor Wang Yanfen, UCAS

Professor David Molden, ICIMOD

Organization Committee:

Chairman: Professor Wu Yanhong,
CNICIMOD & IMHE

Vice Chairman: Professor Chi Huyen Truong,
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Criteria Unification to Build the Belt and Road Initiative Action Plan (2018-2020) Issued in Beijing

Source: <https://www.yidaiyilu.gov.cn/>

“Criteria Unification to Build the Belt and Road Initiative Action Plan”(herein after called Action Plan) has been issued by Chinese government since January 2018 with the objective of a new page of international criteria development conducted by market, boosted by government, participated by all parties.

Criteria unification in 9 aspects has been clarified in the Action Plan, including Strategies, infrastructure construction, international energy production and equipment manufacturing, international trade, energy saving and environmental protection, humanity, health service, finance, ocean, with 9 specific actions like international standard exchange and mutual recognition action, China criteria international impact promotion action, etc., as well as several safeguard measures on policies, laws & rules, funding, evaluation and dissemination etc.

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

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