Training Course on Soil-Water Conservation & Ecosystem Restoration

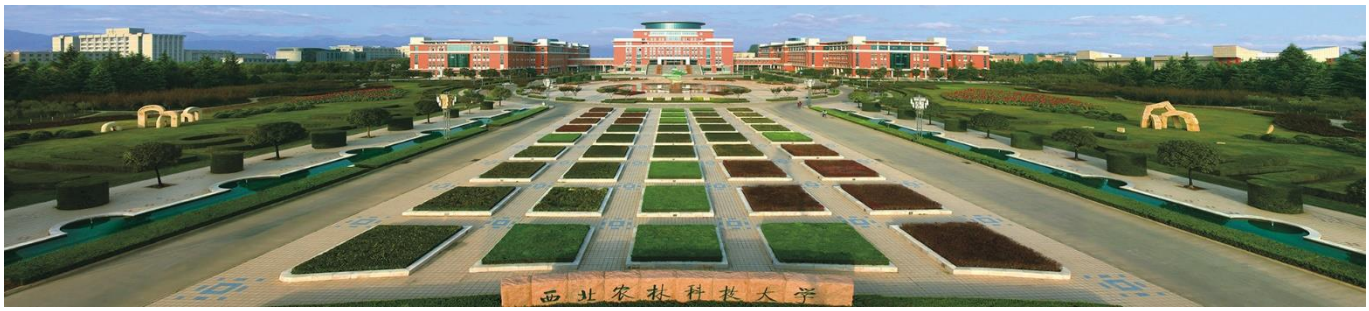
(September 11-29, 2018, Yangling, China)

Institute of Soil and Water Conservation

Chinese Academy of Sciences
Northwest A&F University

May 2018

Contact: Yaxian HU (training@ms.iswc.ac.cn)



Training Course on Soil-Water Conservation & Ecosystem Restoration

The "Training Course on Soil-Water Conservation & Ecological Restoration" is initiated by the Institute of Soil and Water Conservation, Chinese Academy of Sciences, and Northwest A&F University.

The training course is for advanced researchers and technicians from all the countries along the Silk Road and other relevant developing countries, with the aims to expand current collaboration and establish long-term partnership between China and all the relevant countries.

Hereby we warmly encourage you to come and join us, sharing your knowledge and experiences. With thorough exchanges and discussions, we can learn from each other and find a better way to jointly tackle the challenges currently faced by soil conservation and ecosystem restoration in your region and better prepared for future climate conditions.

Looking forward to seeing you here at Yangling!

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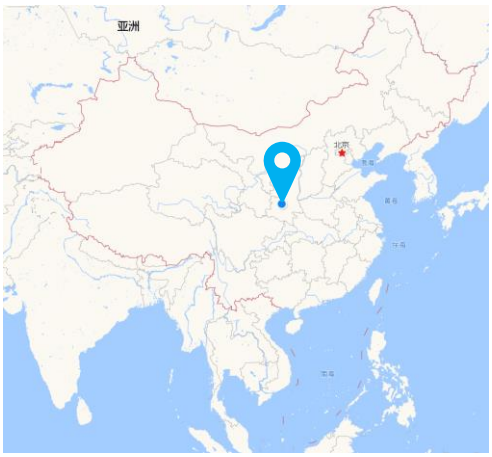
Institute of Soil and Water Conservation (ISWC)

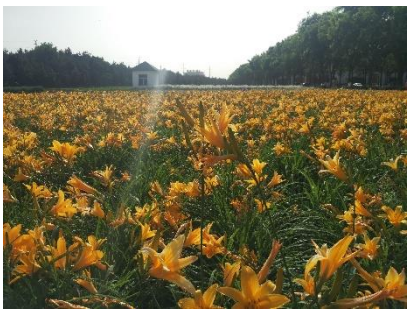
The Institute of Soil and Water Conservation (ISWC) is located at Yangling, Shannxi Province, the birthplace of ancient Chinese agricultural civilization. It was established in 1956 and is the first institute of Chinese Academy of Sciences in Northwest China. In 1999, ISWC merged with other 6 institutions at Yangling into Northwest A&F University. The institute has about 200 staffs, including 1 academician each of CAS and the CAE, and 1 academician of the International Academy of Science for Europe and 63 senior professional positions. The key research topics of ISWC are mainly based on soil erosion and dryland farming on the Loess Plateau, ranging from soil erosion process and prediction models in complex environment; water saving principles in dryland farming, development of soil-water conservation technique, ecological restoration and services.



Northwest A&F University

The Northwest A&F University is a key national comprehensive university directly under the administration of the Ministry of Education of China. As one of the leading universities in China, NWUAF is supported by Ministry of Education's “Project 985” and “Project 211”.

The NWAFU is the only education institution in China that is completely equipped with disciplines of agriculture, forestry, and water science. Currently, there are 23 colleges (departments, institutes) and Graduate School, covering disciplines of agriculture, science, engineering, economics, business, liberal arts, law, philosophy, history, medicine, education, arts, etc. The recruitment of undergraduate students has been initiated in 1934 and post-graduate students in 1941. During the past eight decades, more than 130,000 professional talents have stepped out of campus to work home and abroad, among whom 15 have become academicians of Chinese Academy of Sciences and Chinese Academy of Engineering. They have made outstanding contributions to the Northwest area and the whole China in the field of agriculture modernization, rural economic and social development.



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Training course program

Date	Day of week	Program	Lecturer
Sept. 11	Tuesday	Arrival and Registration	
Sept. 12	Wednesday	Opening ceremony & Reception dinner	
Sept. 13	Thursday	Attending the Global Soil Erosion Research Forum 2018	
Sept. 14	Friday	Attending the Global Soil Erosion Research Forum 2018	
Sept.15	Saturday	Visit the Old City of Xi'an	
Sept.16	Sunday	Visit the Terra Cotta Warrior	
Sept. 17	Monday	Course 1: Chinese Culture and Agricultural Development (and visit the campuses of Northwest A&F University)	LIU Mengjun
Sept. 18	Tuesday	Visit the Institute of Soil and Water Conservation, and the Research Center on Agricultural Development Strategy in the Semi-Arid of China	
Sept. 19	Wednesday	Course 2: Global Climate Change and Soil-Water Conservation	LI Rui
Sept. 20	Thursday	Course 3: Practices and Experiences of Soil and Water Conservation in China	LIU Guobin
Sept. 21	Friday	Course 4: Progresses and Trends in Dryland Farming	FENG Hao
Sept. 22	Saturday	Field Trip to Changwu Station: green catchment after ecological restoration	GUO Shengli
Sept. 23	Sunday	Field Trip to Ansai Station: practices and challenges of soil-water conservation	CHEN Yunming
Sept. 24	Monday	Course 5: Soil Erosion and Prediction Models	ZHENG Fenli
Sept. 25	Tuesday	Course 6: Policy and Achievements of Soil-Water Conservation in China	WANG Fei
Sept. 26	Wednesday	Course 7: Soil-Water Conservation and Ecological Services	AN Shaoshan
Sept. 27	Thursday	Course 8: Environmental Effects of Soil Erosion	HU Yaxian
Sept. 28	Friday	Group-up Discussions and Graduation Ceremony	
Sept. 29	Saturday	Departure	

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Training course lecturers

LI Rui, PhD., Professor, President of World Association of Soil and Water Conservation (WASWAC). He mainly focuses on 1) catchment-scale soil-water loss control; 2) acquisition of regional soil erosion factors from remote sensing images; 3) field investigation protocols of regional soil-water loss; 4) evaluation of regional soil-water conservation. So far, Prof. LI has participated as principle investigator (PI) in more than 30 national research projects and has published more than 120 peer-reviewed research articles. Prof. LI is also very experienced in lecturing international training courses such as "Soil-Water Conservation and Dryland Farming".

LIU Guobin, PhD., Professor, Director of the Institute of Soil and Water Conservation, Consultant of World Bank projects, and Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. Prof. LIU has dedicated decades to soil-water conservation and ecological restoration and received national award for his excellent achievements in soil-water control. In the past ten years, Prof. LIU has been invited to give international training courses of "Soil-Water Loss and Control in China" and "Soil-Water Conservation and Ecological Restoration on the Chinese Loess Plateau".

ZHENG Fenli, PhD., Professor, one of the National Projects of Millions of Talent. During the past few decades of research career, Prof. ZHENG has extensive international collaboration with the US, France and Austria over a number of international projects. So far, Prof. ZHENG has published more than 250 peer-reviewed articles. In the past ten years, she has been invited to give international training courses of "Soil Erosion Processes and Prediction Models".

FENG Hao, PhD., Professor, Deputy of the Institute of Soil and Water Conservation. He mainly focuses on efficient use of agricultural soil and water, agro-ecosystem modeling and precipitation recycling. Prof. FENG participated as principal investigator (PI) in a number of national and provincial research projects and has published more than 90 peer-reviewed papers and owns 8 patents. So far, he has supervised more than 20 graduates.

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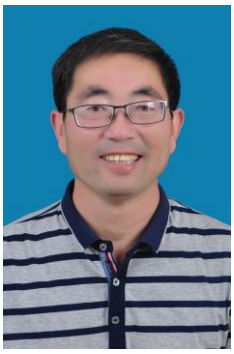
Training course lecturers

AN Shaoshan, PhD., Professor, Chief Officer of the Scientific and Technology Office, the Institute of Soil and Water Conservation. Prof. AN mainly focuses on evaluation of soil-water conservation, vegetation restoration and soil quality changes. Apart from personal awards on research achievements, Prof. AN also participates in different national or provincial research projects as principal investigator (PI). So far, Prof. AN has published more than 100 peer-reviewed articles.

WANG Fei, PhD., Professor, Co-chair of DesertNet International (DNI), Consultant of Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. Prof. WANG mainly focuses on soil-water conservation monitoring and assessment, integrated management of catchment and regional sustainable development, desertification risks and control, climate change and policy making. Prof. WANG is specially experienced in international research projects from FAO, EU Framework, Horizon 2020, and between Holland government. In the past 10 years, Prof. WANG participated in 20 national or international research projects as principal investigator (PI) and has published more than 100 peer-reviewed articles.



LIU Mengjun, PhD., Associate Professor, teaching expert in crop cultivation and potato breeding. Apart from 15 peer-reviewed articles, Prof. MENG also published 5 books and participated in several provincial research projects. His extensive experiences in the past 10 years teaching “Chinese Culture and Agricultural Development” during different international training courses have won him one of the most liked teachers.

HU Yaxian, PhD., Associate Professor. During her doctoral and post-doc research period in Switzerland, HU mainly focuses on catchment-scale soil erosion and nutrient redistribution and has accumulated extensive experiences by participating international conferences. After joining the Institute of Soil and Water Conservation, she is also interested in soil physio-chemical patterns and soil microbial community changes under the peculiar climate and geomorphology conditions on the Chinese Loess Plateau. So far, HU has published more than 10 peer-reviewed papers in different international journals.

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Eligibility and Requirements

Attendees: approx. 20 positions

Language: English

Eligibility: male/female teachers or researchers in institutes or universities from all the countries along the "One Belt One Road" (other relevant developing countries are also welcome)

Requirements: qualified English skills in listening, speaking, reading and writing; Master or PhD degree in Ecology, Biology, Soil Science, Agriculture or Geography, etc.

Expenses covered by the project:
Registration fee
One round flight/train tickets
Local transportation
Accommodation
Food
Administrative expenses (printing, textbooks, supporting materials, tax, etc.)

Expenses <u>NOT</u> covered by the project:
Illness not caused by accident during the training course (e.g., dental treatment, glasses, or cosmetology, etc.)
Laundry
Haircutting
Telephone or fax
Personal souvenirs
Other cost that is not relevant to the training course

Registration form

Family name	Given Name	Passport NO.	Nationality	Gender	Age	Affiliation	Position	Contact info (email or tel.)	Photo

Send to: **training@ms.iswc.ac.cn** (EXCEL sheet also works)
Deadline: **June 30th, 2018**

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Research Facilities of ISWC

The ISWC has built 4 experimental stations in different climate and geo-featured regions on the Loess Plateau: Ansai station is specialized in monitoring on soil erosion plots with long and steep slopes, Changwu station is mainly responsible for long-term water and nutrients cycles on dryland farming, Guyuan station mostly focuses on local vegetation restoration and animal husbandry, and Shenmu station is located in the ecotone with water-wind erosion, primarily studying climate change and soil desertification.

Ansai station

Changwu station

Guyuan station

Shenmu station

To effectively simulate soil erosion processes, the ISWC built a huge Rainfall Simulation Lab (approx. 1,300 m^2), the second largest simulated rainfall lab in the world. There are also Facilities of Dryland Agriculture in the ISWC, equipped with adjustable light, sealed gas and self-controlled glass greenhouses of different sizes.

Rainfall Simulation Lab

Dryland Agriculture Simulation

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Nearby attractions

View from Yangling towards the Weihe River and the Qinling Mounts

Yangling is right beside the Weihe River, which is the largest tributary of the Yellow River. Besides, the Yangling town is only 80 km away from the historic city of Xi'an, which was the capital of 13 ancient Chinese dynasties. All them have left with Xi'an rich cultural relics. For instance, the most well-known pits of the Terra Cotta Warrior from the Qin Emperor (Qin Shi Huang, 259 BC – 210 BC), which is a form of funerary art buried with the emperor in 210–209 BCE and whose purpose was to protect the emperor in his afterlife. Estimates from 2007 were that the three pits containing the Terracotta Army held more than 8,000 soldiers, 130 chariots with 520 horses and 150 cavalry horses, the majority of which remained buried in the pits nearby Qin Shi Huang's mausoleum.

There are also other cultural landmarks such as the city wall of the Ming Dynasty, the Stele Forest, the two Wild Goose Pagodas and the Bell Tower. In the outskirt of the city, there are also ancient ruins from different dynasties, such as Han City, Tang City, Efang Palace, Weiyang Palace and Daming Palace and Huaqing Pond. In addition, since the region of Xi'an is located between the Loess Plateau and the Qinling Mountains, it also enjoys striking natural landscapes, such as the Mount Hua made of Granite with bright white color and the Qinling Mounts.

Xi'an City Wall

Huashan Mount

Big Wild Goose Pagoda

Bell Tower and Drum Tower

Terra Cotta Warrior

Qinling Mounts

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