Seminar on Soil and Water Conservation and Dryland Agriculture for Developing Countries

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<tr><td>Name</td><td colspan="5">Seminar on Soil and Water Conservation and Dryland Agriculture for Developing Countries</td></tr>
<tr><td>Organizer</td><td colspan="5">Yangling International Exchange Center for
Agricultural High-Tech Industries Demonstration Zone</td></tr>
<tr><td>Time</td><td colspan="2">May 9th, 2024 to May 22nd, 2024</td><td colspan="2">Language for Learning</td><td>English</td></tr>
<tr><td>Invited Countries</td><td colspan="5">Developing countries</td></tr>
<tr><td>Number of Participants</td><td colspan="5">20</td></tr>
<tr><td rowspan="4">Requirements for the Participants</td><td>Age</td><td colspan="4">Under 45 for officials at or under director’s level;
under 50 for officials at director general’s level.</td></tr>
<tr><td>Health</td><td colspan="4">In good health with health certificate issued by the local public hospitals; without diseases with which entry to China is disallowed by China’s laws and regulations; without severe chronic diseases such as serious high blood pressure, cardiovascular/cerebrovascular diseases and diabetes; without metal diseases or epidemic diseases that are likely to cause serious threat to public health; not in the process of recovering after a major operation or in the process of acute diseases; not seriously disabled or pregnant.</td></tr>
<tr><td>Language</td><td colspan="4">Participants should be capable of listening, speaking, reading and writing in English that can meet the requirements of the class.</td></tr>
<tr><td>others</td><td colspan="4">Family members or friends shall not follow.</td></tr>
<tr><td>Host City</td><td colspan="2">Yangling Demonstration Zone, Shaanxi Province</td><td>Local Temperature</td><td colspan="2">Spring: 14°C-26°C</td></tr>
<tr><td>Cities to visit</td><td colspan="2">Beijing City
X
;</td><td>Local Temperature</td><td colspan="2">Beijing City 16°C-26°C
Xi'an City 14°C-26°C</td></tr>
<tr><td>Notes</td><td colspan="5">1. Please prepare your valid passport and visa in advance; 2. If you are unable to depart on time due to special circumstances, or if your flight is delayed when connecting, please contact the program contact person to inform the latest flight status in order to arrange for pick-up; 3. In principle, personal changes to international tickets are not allowed; if you really need to do so, please contact the Business Office for ticket change procedures. If personal change is made to the air tickets without consent, the resulting costs and responsibilities will be borne by the individual. 4. Please check if you need to re-handle your baggage check-in when you transfer to another flight. After picking up your baggage, please wait patiently at the international arrival exit (or domestic arrival exit) and the staff will pick you up with the pick-up sign with the name of the organizer. If you wait for more than 15 minutes, you can communicate with the program contact person by phone; 5. If you need to register with the airline in case of lost checked luggage, please call the program contact person to confirm the luggage delivery address before filling out the registration form; 6. Please pay attention to the weather of the destinations and bring appropriate clothing; prepare light footwear to facilitate visits and investigations; attend the important activities of the Seminar in formal wear or national costume; 7. Please bring a small amount of common medicines as necessary.</td></tr>
<tr><td rowspan="2">Contact of the Organizer</td><td colspan="2">Contact Person(s)</td><td colspan="3">Ms. Li Na</td></tr>
<tr><td colspan="2">Telephone</td><td colspan="3">0086-29-87036061(Li Na)</td></tr>
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About the Organizer	Yangling Demonstration Zone is the first national-level agricultural high-tech industrial demonstration zone established in China in 1997. In 2011, the Ministry of Commerce established the "China Arid Farming Technology Aid Training Base" in Yangling, undertaking training programs for developing countries. Yangling Demonstration Zone is one of the areas in China with the richest innovation elements in agricultural science and technology, talents, and resources. It houses over 110 provincial and ministerial-level agricultural research institutions and platforms, such as the Institute of Soil and Water Conservation of the Chinese Academy of Sciences and the Institute of Water-Saving Agriculture in Arid Areas of China. More than 70 disciplines, including agriculture, forestry, and water, are concentrated here, along with over 7,000 agricultural science and technology talents. It is also the Modern Agriculture International Cooperation Center of the "Belt and Road" Initiative supported by the State Council. Conducting international exchanges and cooperation in the field of agriculture is one of the important national missions undertaken by Yangling. Since 2005, Yangling has hosted more than 160 training sessions for various foreign aid training programs, with over 4,600 participants from more than 130 countries attending training programs in Yangling. Relying on rich scientific and educational resources such as Northwest A&F University, Xi'an Jiaotong University, Chang'an University, the Institute of Soil and Water Conservation of the Chinese Academy of Sciences, and the National Beef Cattle Improvement Center within the province, Yangling has developed ten core training themes, including agricultural economic management, facility agriculture, water-saving irrigation, soil and water conservation, animal husbandry, e-commerce, public infrastructure construction, governance capacity building, and poverty reduction cooperation. It has established a complete curriculum system and training materials for series such as water-saving, soil and water conservation, and facility agriculture. It has also set up more than 20 practical training bases in various fields such as economic orchards, animal husbandry, facility agriculture, and crop planting, providing support for on-site teaching, visits, and inspections related to training activities. Since 2005, Yangling has been hosting projects related to soil and water conservation and water-saving irrigation. It has accumulated over 40 training sessions in this field, training more than 800 people. Centered around themes such as small watershed management, crop water demand, water conservancy facilities construction, water resources regulation, desertification control, rainwater utilization, and water-saving irrigation, it has established a complete curriculum system and compiled two sets of training materials. It has formed a professional team of more than 40 experts from universities and research institutions such as Northwest A&F University, China Agricultural University, Chinese Academy of Agricultural Sciences, and the Institute of Soil and Water Conservation of the Chinese Academy of Sciences. With more than 20 specialized teaching and inspection points established, including the artificial rainfall hall of the Institute of Soil and Water Conservation of the Chinese Academy of Sciences, the Key Laboratory of Small Watershed Management in the Loess Plateau of Northwest A&F University, the Institute of Water-Saving Agriculture in Arid Areas, the National Water-Saving Engineering Center, and the Baoji Gorge and Ansai Experimental Stations, it has laid a solid foundation for conducting such training.	

Seminar Content	1. Main Training Courses and Contents (1) Overview of International Soil Erosion and Conservation: This section introduces the current status and challenges of global soil erosion and conservation, including the causes, hazards, and remediation measures of soil erosion. It also includes examples of typical demonstration models to illustrate soil and water conservation ecological restoration models and technologies. (2) Overview of International Dryland Agriculture and Progress in Water-saving Technologies: This section presents the current status, challenges, and trends in global dryland agriculture development. It also illustrates water-saving strategies, technologies, research, and technological development in dryland agriculture using typical examples. (3) Major Measures and Promotion of Soil and Water Loss Control in China: This section introduces the main causes and hazards of soil and water loss, the current situation of soil and water loss control in China, effective measures, promotion of measures, and achievements. (4) Soil Moisture Movement and Moisture Content Determination: This section explains the movement of liquid and gaseous water in soil, their main movement modes, basic parameters of soil moisture movement, and major methods of soil moisture content determination. (5) Theory and Technology of Soil Moisture Regulation and Efficient Utilization: This section introduces the theory and technology of soil moisture regulation in dryland and irrigated agriculture, including techniques such as soil permeability enhancement, soil water retention enhancement, mulching, irrigation regulation, and techniques to improve soil moisture effectiveness. (6) Basic Principles and Model Construction of Soil Erosion Forecasting: This section introduces the process and calculation methods of runoff formation, internationally mature and widely used water erosion forecasting models, wind erosion forecasting models, and soil and water assessment tools models that can predict runoff, erosion, and pollutant transport. (7) Case Studies of Soil Erosion Forecasting Models: This section combines the characteristics of erosion environments in China to introduce the application and evaluation of water erosion forecasting models, wind erosion forecasting models, and soil and water assessment tool models. (8) Nutrient Management in Drylands: This section discusses the control of micronutrients in drylands, as well as the management of irrigation, fertilizers, pesticides, and other nutrients. (9) Theory and Practical Techniques for Desertification Control: Using China's northwest region as an example, this section mainly introduces the concept, causes, manifestations, and impacts of desertification, strategies and measures for desertification control, and soil and water conservation engineering measures. (10) Theory and Techniques for Transformation and Utilization of Saline-alkali Land: This section introduces the distribution and causes of saline-alkali land, basic principles, improvement measures, and effects of land improvement and development policies, and typical cases of saline-alkali land resources development and utilization. 2.Visit and Investigation (1) It is proposed to arrange for the trainees to visit the State Key Laboratory of Soil Erosion and Dryland Farming on the Loess Plateau at the Institute of Soil and Water Conservation, Chinese Academy of Sciences and Ministry of Water Resources. This visit aims to provide insights into ecological construction on the Loess Plateau, decision-making on Yellow River management, and related technologies in dryland agriculture. This visit will help the trainees better understand the knowledge learned in the classroom. (2) It is proposed to arrange for the trainees to visit the China Institute of Water-saving Agriculture in Arid Areas to learn about research and applications of technologies such as crop water demand regulation, water-saving cultivation, and management of soil and water resources. (3) It is proposed to arrange for the trainees to visit the Smart Agriculture Demonstration Park in Yangling to inspect integrated irrigation equipment for water and fertilizer and smart agricultural control systems. 3. Cultural Experience It is proposed to arrange for the trainees to visit the Great Wall, the Terracotta Warriors and Horses, and the Xi'an Museum for on-site inspections, to experience Chinese traditional culture

	and art. 4. Introduction of Main Lecturers (1) Li Rui: Honorary Chairman of the World Association of Soil and Water Conservation, Senior Researcher at the Institute of Soil and Water Conservation, Chinese Academy of Sciences and Ministry of Water Resources, Secondary Professor at Northwest A&F University, Ph.D. Supervisor, Chief Scientist of the National "973" Project, Member of the Overall Expert Group of National Key Research and Development Program Projects, and President of the World Association of Soil and Water Conservation. He has long been engaged in research on soil and water conservation planning, land resources survey and evaluation, dynamic remote sensing monitoring and evaluation of regional soil erosion, and has undertaken over 30 national major basic research projects (973 projects), national science and technology projects, international cooperation projects, etc. He has published more than 130 papers and edited or contributed to 15 monographs. (2) Liu Guobin: Researcher and Ph.D. Supervisor at the Institute of Soil and Water Conservation, Northwest A&F University, and the Institute of Soil and Water Conservation, Chinese Academy of Sciences and Ministry of Water Resources. He is also the Deputy Director of the Ecological Restoration Professional Committee of the Chinese Society of Soil and Water Conservation. His main research direction is soil and water conservation and ecological restoration research. (3) Zhang Fucang: Professor at the College of Water Resources and Architectural Engineering, Northwest A&F University, and Deputy Director of the Key Laboratory of Crop Efficient Water Use of the Ministry of Agriculture and Rural Affairs. He is also the Director of the Crop Water Requirement and Regulation Institute at the Institute of Water-Saving Agriculture in Arid Areas. His main research interests include theories and technologies of water-saving irrigation, water and fertilizer regulation in farmland, and environmental effects. (4) Zheng Fenli: Researcher and Ph.D. Supervisor at the Institute of Soil and Water Conservation, Chinese Academy of Sciences and Ministry of Water Resources, and Director of the Sino-US Joint Research Center for Soil and Water Conservation and Environmental Protection. Her main research areas include soil erosion and soil and water conservation, climate change and eco-hydrology. (5) Wang Zhaohui: Professor and Ph.D. Supervisor at the College of Resources and Environment, Northwest A&F University, and Director of the China Society of Plant Nutrition and Fertilizer. He is also a member of the editorial board of the "Acta Pedologica Sinica" of the Chinese Society of Soil Science. His research focuses on crop nutrition regulation and water and fertilizer management in arid areas. (6) Wang Fei: Researcher and Deputy Director at the Institute of Soil and Water Conservation, Chinese Academy of Sciences and Ministry of Water Resources. His main research areas include environmental monitoring and impact assessment of soil and water conservation, integrated basin management and regional sustainable development, desertification assessment and governance, and environmental impact assessment and adaptation strategies for climate change. He has published 37 research papers in journals such as the "Journal of Soil and Water Conservation" and "Journal of Hydraulic Engineering." To facilitate the exchange with Chinese experts, please prepare the exchange materials related to the training topics in your country, such as: ① Introduce the main methods and experiences of soil and water conservation and dryland agriculture in our country, as well as the problems and challenges faced; ② The basis and demands of cooperation with Chinese agriculture.