



INTERNATIONAL STUDY TOUR ON “PROMOTING JUNCAO TECHNOLOGY FOR RESILIENT FOOD SYSTEMS, POVERTY ERADICATION AND CLIMATE ADAPTATION IN CHINA”

**Division for Sustainable Development Goals of the Department of Economic and Social Affairs ▪
National Engineering Research Centre of Juncao Technology of Fujian Agriculture and Forestry
University of China**

August 18-21, 2026

Inner Mongolia Autonomous Region, Ningxia Hui Autonomous Region, China

1. Purpose

The year 2026 marks the 40th anniversary of the invention of Juncao technology, a groundbreaking innovation developed in 1986 by Prof. Lin Zhanxi of Fujian Agriculture and Forestry University (FAFU). Over the past four decades, Juncao technology has evolved into an important model of South-South cooperation, sustainable agriculture, ecological restoration and rural development, benefiting communities across Asia, Africa, the Pacific, Latin America and the Caribbean.

Originally developed as a scientific solution to the global “fungi-forest conflict,” Juncao technology enables the cultivation of edible and medicinal mushrooms using herbaceous grasses instead of wood logs, thereby reducing deforestation and promoting environmentally sustainable production systems. Beyond mushroom cultivation, technology has expanded into multiple applications including livestock feed production, soil and water conservation, saline-alkali land rehabilitation, methane production, desertification control, climate adaptation, and ecological restoration.

The international study tour is convened in the broader context of the implementation of the 2030 Agenda for Sustainable Development and the Sustainable Development Goals (SDGs), particularly goals related to poverty eradication, food security, employment generation, climate resilience, environmental protection, and sustainable livelihoods. It also contributes to the objectives of the Global Development Initiative and the Pact for the Future by promoting science, technology and innovation through South-South and triangular cooperation.

Since 2017, UNDESA, through the United Nations Peace and Development Trust Fund and in partnership with the National Engineering Research Centre for Juncao Technology at FAFU, has supported the transfer of Juncao technology to developing countries through capacity-building workshops, policy dialogues, demonstration projects, and technical training programmes. During the first and second phases of the project, thousands of policymakers, researchers, technicians and farmers participated in training and demonstration activities across Africa, Asia-Pacific, Latin America and the Caribbean.

To address some of these challenges, especially closing the technological gap in agriculture and



boosting the contribution of agriculture to ending extreme poverty and hunger, and to shared prosperity, UNDESA and FAFU are promoting the transfer of Juncao technology to developing countries. In 2017, DESA launched a project on Juncao Technology under the framework of the 2030 Agenda for Sustainable Development Sub-Fund. The project focused on raising awareness of the potential of the technology at global, regional, and national levels.

During the first and second phase of the Project, more than 11,200 participants including policymakers, technicians, and small-scale farmers have been trained. The technology has been successfully transferred to several developing countries in African, Asia-Pacific, Latin American and Caribbean countries, including Albania, Cambodia, the Democratic Republic of Congo, the Central African Republic, Cook Islands, Eritrea, Fiji, Ghana, Kenya, Laos, Lesotho, Madagascar, Mozambique, Namibia, Nigeria, Papua New Guinea, Philippines, Rwanda, South Africa, Sri Lanka, Sudan, Surinam, South Sudan, Thailand, Tonga and Zimbabwe. Ethiopia, Jamaica, Nepal are currently considering implementing the Juncao technology in their countries.

This specialized International Study Tour offers high-level stakeholders direct field exposure to Juncao's frontier applications in arid, semi-arid, and ecologically vulnerable zones. The tour is organized in the broader context of the 2030 Agenda for Sustainable Development, focusing on closing the technological gap in agriculture, accelerating poverty reduction, and scaling up climate resilience through South-South and triangular cooperation.

II. Objectives and Methodology

The international symposium and study tour provides an opportunity to equip policymakers, experts along the agri-value chain to learn more about the benefits of Juncao technology as well as enhance the capacities of these groups with the requisite know-how to transfer Juncao technology in their respective countries, adapting it to their specific circumstances. Hence, the study tour aims to enhance knowledge and strengthen national capacities of participating countries to improve their policies and programmes supporting sustainable agriculture and protecting the environment through the transfer of Juncao technology. In the context of the 2030 Agenda for Sustainable Development, the workshop will highlight the benefits of South-South and Triangular Cooperation as a means of enhancing access to science, technology, and innovation, knowledge sharing as well as capacity building and to effectively contribute to the achievement of the Sustainable Development Goals.

III. Participants

The participants will include target beneficiaries of countries, including high-level policy makers, environment, climate change, agriculture, food and nutrition experts, entrepreneurs, experts from the National Engineering Research Centre for Juncao Technology of the Fujian Agriculture and Forestry University (FAFU) of the People's Republic of China, and the United Nations.

IV. Expected outcome of the Study Tour



- Have gained enhanced understanding of the achievements and global impact of Juncao technology over the past 40 years, particularly its contribution to poverty reduction, food security, ecological restoration, climate resilience and sustainable development.
- Have exchanged experiences, good practices and policy perspectives on the application of Juncao technology through South-South and triangular cooperation, including its role in supporting the implementation of the 2030 Agenda for Sustainable Development and the SDGs.
- Have strengthened partnerships and networks among governments, United Nations agencies, research institutions, development partners, entrepreneurs and practitioners working in sustainable agriculture and rural development.
- Have been exposed to and learnt about the Juncao industry in Fujian Province, China, especially its contribution to poverty eradication, employment creation, and environmental protection.
- Have acquired enhanced capability and a better understanding of the requirements for successful implementation of Juncao technology and its utility to support the realization of sustainable agriculture and the implementation of the SDGs.

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