

**United Nations Department of Economic and Social Affairs (UN DESA)
Division for Sustainable Development Goals**

Concept Note

**Online African Regional Capacity Building Workshop on Juncao Technology ¹ and its
Support to Achieve Sustainable Agriculture and the SDGs**

27 May 2021, 2:00 pm – 4:00 pm EAT

Organized by the Division for Sustainable Development Goals of UN DESA in collaboration with the National Engineering Research Centre for Juncao Technology of the Fujian Agriculture and Forestry University (FAFU) of China

Background

In Africa, 65 per cent of its population live in rural areas and engage in small-scale farming. However, low agricultural productivity has not contributed to significant reductions in poverty and hunger. In sub-Saharan Africa, 41.2 percent of its population lived on less than \$1.90 a day in 2017 and over 70 percent of the poor lived in rural areas. Sub-Saharan Africa is also the only major region where the number of the extreme poor increased prior to the outbreak of the COVID-19 pandemic, from 418 million in 2015 to 432 million in 2017, and poverty will continue to be heavily concentrated in rural areas. Employment in agriculture accounts for 55 percent of employment in sub-Saharan Africa. Crop yields in sub-Saharan Africa have barely doubled over the past four decades. In contrast, crop yields tripled in South Asia and increased by six-fold in East Asia. Low crop productivity and unequal access to productive assets and inputs such as land, high-yielding crop varieties, fertilizer and credit also continue to constrain the ability of Africa's family farmers and smallholder farmers to participate in markets and benefit from agro-value chains. Situations of conflict, ongoing climate change, and disasters such as droughts, floods and locust invasions have also exacerbated the food and nutrition security situation in parts of sub-Saharan Africa. This situation has been further worsened by the COVID-19 pandemic which has disrupted agricultural activities and food systems. Yet, the COVID-19 pandemic continues to take a toll on African lives and has pushed up to 40 million people into extreme poverty. Women, youth, low-skill workers,

¹ Juncao technology has been developed by the National Engineering Research Centre for Juncao Technology of the Fujian Agriculture and Forestry University (FAFU) of China. The technology has a multi-faceted approach of cultivating mushroom and fungi for food and medicinal purposes while at the same time addressing soil erosion for maintaining the volume of arable land and also supporting livestock feed development.



and those in the informal sector remain most affected by lack of access to social protection and income opportunities.²

In its recent resolutions on ‘Agriculture development, food security and nutrition (A/RES/75/235) and ‘Agricultural Technology for Sustainable Development’ (A/RES/74/215), the General Assembly expressed concern that the current pace and scope of implementation of Sustainable Development Goal 2, is unlikely to promote the transformational change needed and that its targets will not be achieved in many parts of the world, and called for additional efforts to support the transformational change that is needed.

Further, the 2030 Agenda, the second High-level United Nations Conference on South-South Cooperation and its outcome document (A/RES/73/291), and General Assembly (A/RES/75/235) recognize “the important role that South-South and triangular cooperation play in fostering partnerships among developing countries that lead to the end of poverty and hunger and to the achievement of food security and improved nutrition, as well as the promotion of sustainable agriculture.” The General Assembly (A/RES/75/230) also “...encourages the international community to enhance international cooperation and to devote resources to developing rural and urban areas and sustainable agriculture and fisheries and to supporting smallholder farmers, especially women farmers, herders and fishers in developing countries, particularly in the least developed countries.”

These challenges are complex and multidimensional, requiring innovative, home-grown, sustainable, replicable, and scalable solutions. To help support global efforts to promote appropriate agricultural technologies and practices that contribute to the achievement of food security and the eradication of poverty, the National Engineering Research Centre for Juncao Technology of the Fujian Agriculture and Forestry University (FAFU) of China developed Juncao technology (jun meaning fungi, cao meaning grass). This technology, which is being transferred to developing countries through South-South and Triangular cooperation and upon request, allows farmers in developing countries to grow several types of nutritious mushrooms from dried, chopped grasses without cutting down trees and damaging the environment. Such an environmental-friendly technology can help small-scale farmers and farming communities to develop a low-cost, commercial-scale mushroom cultivation industry that can provide sustainable livelihoods for thousands.

In addition, the technology can also be used for producing cattle feed, methane gas, minimize soil erosion, and combat desertification. The strong adaptability and rapid growth of the Juncao grass, well-developed root system, and tall plants accelerate desertification control and reduce costs. In the long run, agribusiness entities, such as cooperatives and micro-, small and medium-sized enterprises (MSMEs) that constitute a substantial part of the industry could be valuable conduits that integrate the Juncao products within value chains at the national and regional level.

² <https://www.worldbank.org/en/news/factsheet/2020/06/02/world-banks-response-to-covid-19-coronavirus-in-africa>

Hence, the mobilization of capacity building and the transfer of environmentally sound technologies to developing countries such as the Juncao technology contribute to achieving the 2030 Agenda for Sustainable Development and the SDGs. DESA, in partnership with FAFU will continue to work with the government and institutions towards ensuring that poor rural women and unemployed youth have sustainable livelihoods and decent employment through support to capacity-building efforts aimed at promoting agriculture. When successfully implemented, the Juncao technology will address poverty, employment, and environmental concerns in rural areas.

Objective

This capacity building workshop aims to enhance knowledge and strengthen national capacities of developing countries to improve their policies and programmes supporting sustainable agriculture and environment through the transfer of Juncao technology to eradicate poverty, and promote productive activities, income generation, and entrepreneurship especially among the poor, smallholder farmers, women, youth and to contribute to the achievement of the Sustainable Development Goals. 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 (SDGs).

Participants

The participants will include target beneficiaries of countries in the African region, including policy makers, 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, the United Nations, African Union and its Great Green Wall for the Sahara and the Sahel Initiative.

Expected Outcome

At the conclusion of the Capacity Building Workshop, it is anticipated that the participants will:

- Have acquired 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.
- Be able to participate in ongoing and planned international, regional and national initiatives to advance the achievement of the 2030 Agenda and the SDGs.
- Be able to forge networks and be part of a community of practice to support one another in reaching the implementation of Juncao technology and sustainable agriculture.

Language

English, French, and Chinese.

Contacts

Ms. Ang Chen
Sustainable Development Officer
Division for Sustainable Development Goals
Department of Economic and Social Affairs
United Nations
New York, NY 10017
Email: chena@un.org

Dr. LIN Dongmei
Vice Director of National Engineering Research Center of Juncao Technology
Fujian Agriculture and Forestry University
Fuzhou, Fujian, P.R.China
Email: 982245079@qq.com

Ms. Ruoshi Geng
National Strategies and Capacity Building Branch
Division for Sustainable Development Goals
Department of Economic and Social Affairs
United Nations
New York, NY 10017 USA
E-mail: ruoshi.geng@un.org