



**United Nations**

Department of  
Economic and  
Social Affairs



**MINAGRI**



## **AFRICAN REGIONAL WORKSHOP ON**

### **“APPLICATIONS OF JUNCAO TECHNOLOGY AND ITS CONTRIBUTION TO THE ACHIEVEMENT OF SUSTAINABLE AGRICULTURE AND THE SUSTAINABLE DEVELOPMENT GOALS IN AFRICA”**

▪ **Division for Sustainable Development Goals of DESA ▪ National Engineering Research  
Centre for Juncao Technology of the Fujian Agriculture and Forestry University  
(FAFU) of China ▪ Ministry of Agriculture and Animal Resources, Rwanda ▪ Rwanda  
Agriculture and Animal Resources Development Board (RAB).**

#### **Concept Note**

**21-24 February 2023**

**Kigali, Rwanda**

#### **1. Purpose of the workshop**

The capacity building workshop is convened in the context of UNDESA's mission to advise interested Governments on the ways and means of translating policy frameworks developed in UN conferences and summits into programmes at the regional level and, through technical assistance that helps build national capacities. Capacity building activities are also aimed at strengthening and maintaining the capabilities of states and societies to design and implement strategies that minimize the negative impacts of current social, economic and environmental crises and emerging challenges. As a cross-cutting entry point, capacity building activities promote the integration of the 2030 Agenda for Sustainable Development and the Sustainable Development Goals (SDGs) into national sustainable development planning frameworks, sharing lessons learned and good practices through workshops and related events.

The 2030 Agenda recognizes that capacity-building forms part of the means of implementation for the SDGs (paragraph 41). Each SDG contains targets relating to means of implementation, including capacity- building. Moreover, SDG 17, which covers means of implementation and the global partnership for sustainable development, contains target 17.9 which aims to: "Enhance international support for implementing effective and targeted capacity-building in developing countries to support national plans to implement all the sustainable development goals, including through North-South, South-South and triangular cooperation".

In that regard, UN DESA is collaborating with the National Engineering Research Centre for Juncao Technology of the Fujian Agriculture and Forestry University (FAFU) of the People's Republic of China, under the UN Peace and Development Trust Fund, on a project entitled *“Enhancing capacity of developing countries to achieve sustainable agriculture through the transfer of Juncao technology for alleviating poverty and promoting productive employment”*. This project is linked to issues that are important to developing countries, including eradication of poverty, reduction of hunger, use of renewable energy, promotion of employment, protection of the environment and



responsiveness to climate change. It fits the special conditions and needs of many developing countries in Asia, Africa, Latin America and the Caribbean and has the potential to help developing countries overcome development challenges and advance the implementation of the 2030 Agenda and the SDGs.

This technology, which is being transferred to developing countries through south-south 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 livelihood for thousands. In addition, the technology can also be used for producing cattle feed, methane gas and minimize soil erosion to combat desertification. In the long run, depending on local demand and the scale of production, it may also provide opportunities for exporting the mushrooms cultivated using the technology.

Hence, the mobilization of capacity building and the transfer of environmentally sound technologies to developing countries such as the Juncao technology contributes to achievement of the 2030 Agenda for Sustainable Development and the SDGs. DESA, in partnership with FAFU will continue to work with the Government 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 contribute to addressing poverty, employment and environmental concerns in rural areas.

The High-Level Political Forum on Sustainable Development (HLPF) that has the central role in overseeing follow up and review in implementing the Goals and targets at the global level has also underlined and reiterated the importance of supporting developing countries in their efforts to implement the SDGs and advance the implementation of the 2030 Agenda for Sustainable Development.<sup>1</sup>

## **II. 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.

---

<sup>1</sup> UN, Ministerial Declaration of the 2017 High-Level Political Forum on Sustainable Development, convened under the auspices of the Economic and Social Council on the theme eradicating poverty and promoting prosperity in a changing world, Doc. # E/2017/L.29-E/HLPF/2017/L.2, 14 July 2017.



Job losses from the pandemic as well as lockdown measures that disrupted trade and agricultural activities have exacerbated poverty and food insecurity, dashing hopes of achieving the Sustainable Development Goal of ending extreme poverty and hunger. Women, youth, low-skill workers, and those in the informal sector remain most affected by lack of access to social protection and income opportunities.<sup>2</sup>

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. Poverty and hunger are forecast to further increase in the world's most vulnerable economies, particularly in Africa, where the absolute number of people in poverty is anticipated to rise through 2023. The number of people living in extreme poverty globally is projected to decrease slightly to 876 million in 2022 but is expected to remain well above pre-pandemic levels. Yet, the COVID-19 pandemic continues to take a toll on African lives and has pushed up to 40 million people into extreme poverty.

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."

---

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



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.

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.

### **III. Objectives and Methodology**

This regional workshop provides an opportunity to equip policymakers, experts, and smallholder farmers in Africa 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 workshop 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.



#### **IV. 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, China-Rwanda Agriculture Technology Demonstration Center, and the United Nations.

#### **V. Expected outcome of the Capacity Building Workshop**

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

- 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.
- Be able to participate in ongoing and planned national Juncao activities to advance the Agenda and the SDGs' implementation.
- Be able to remain in a community of similar practitioners and experts to support one another in reaching the implementation of Juncao technology and sustainable agriculture.

#### **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](mailto: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](mailto:982245079@qq.com)

Ms. Hatungimana Mediatrice  
Scientist  
Agriculture and Animal Resources Development Board, Rwanda  
E-mail: [mediatrice.hatungimana@rab.gov.rw](mailto:mediatrice.hatungimana@rab.gov.rw)