



Department of Economic and Social Affairs (DESA)

Division for Sustainable Development Goals

Draft Concept Note

Online Capacity Building Workshop

Applications of Juncao Technology ¹ and its Contribution to the Achievement of Sustainable Agriculture and the Sustainable Development Goals in Tanzania

4 March 2021, 2:00 pm -3:30 pm EAT

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

Background

The United Republic of Tanzania has recorded sustained strong income growth over the past decade and is positioning itself to become a middle-income country by 2025. The country has also made progress in increasing access to basic services and infrastructure, reducing child and maternal mortality, combating HIV and AIDS, malaria, universal primary education, and addressing gender equality. Despite these achievements, Tanzania, like many developing countries, still faces enormous development challenges that cut across the social, economic and environmental spheres of sustainable development. These challenges include lack of inclusive growth, high levels of poverty and unemployment and food insecurity. The proportion of people living on less than \$1.90 a day declined from 34.4 per cent in 2007 to 26.4 per cent in 2018.² However, the absolute number of poor people grew from 13 million in 2007, to 14 million during this period. Although most of the reduction in poverty was witnessed in rural areas, levels of poverty remain particularly high in rural areas. These challenges have been exacerbated by the COVID-19 pandemic, climate change and disasters like the recent locust invasions that ravaged East Africa.

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.

² <http://documents1.worldbank.org/curated/en/431111575939381087/pdf/Executive-Summary.pdf>

These challenges are complex and multidimensional, requiring innovative solutions that are home-grown, sustainable, replicable and scalable. Some of these solutions are also provided through South-South and Triangular cooperation as exemplified by the Juncao technology that was developed by FAFU and is implemented in over 100 developing countries, including in the United Republic of Tanzania where agriculture is the backbone of the economy, contributing about 30 percent of the gross domestic product. The sector also supports about 80 percent of rural livelihoods and produces close to 95 percent of the country's food requirements. Addressing food insecurity and malnutrition remains one of the country's most pressing challenges. The country's agriculture sector is vastly diverse (including the cultivation of crops, livestock production, forestry, and fisheries) and contributes significantly to national gross domestic product (GDP).³ Hence, the government recognizes agriculture as central to realizing its objectives of socioeconomic development, which are outlined in the Second Agriculture Sector Development Program (ASDP II).⁴

Further, small-scale farmers in the Republic of Tanzania, like in many developing countries encounter constant challenges with respect to growing agricultural produce, putting them at risk of not being able to obtain enough harvests to support their families' livelihoods. Lack of sufficient arable land to grow traditional agricultural crops, including in remote and mountainous areas, compounds the perennial problem of poverty and hunger in many developing countries.

In September 2015, Heads of State and Government adopted the 2030 Agenda for Sustainable Development and its Sustainable Development Goals.⁵ Further, Member States committed themselves to promote sustainable agriculture to ensure sustainable development with a view to lifting millions out of poverty. They also committed themselves to devote resources to supporting smallholder farmers, especially women farmers and herders in developing countries, particularly least developed countries.

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 had developed Juncao technology (jun meaning fungi, cao meaning grass). 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

³ FAO, The United Republic of Tanzania Resilience Strategy 2019-2022, paras v, 1

⁴ Mungunasi, Emmanuel A..2019. Tanzania Economic Update: Transforming Agriculture - Realizing the Potential of Agriculture for Inclusive Growth and Poverty Reduction (English). Tanzania economic update; issue no. 13 Washington, D.C.: World Bank Group.

⁵ UN, Transforming our world: the 2030 Agenda for sustainable development, Doc. #A/Res/70/1, 21 October 2015.

producing cattle feed, methane gas and also 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.⁶

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 through the transfer of Juncao technology in order to eradicate poverty, and promote productive activities, income generation and entrepreneurship especially among the poor, smallholder farmers, women, youth and to effectively 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 policymakers of government, local experts and other stakeholders, experts from the National Engineering Research Centre for Juncao Technology of the Fujian Agriculture and Forestry University (FAFU) of China, experts from the United Nations.

⁶ 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.

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 initiatives 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 USA
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