

JUSTIFICATION FOR A NEED FOR JUNCAO TECHNOLOGY IN AFRICA, TANZANIA IN PARTICULAR

By

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The United republic of Tanzania (URT) is implementing Tanzania Development Vision 2025. The current efforts focus to promote industrialization for rapid economic growth. These efforts in one way or another create more pressure on the use of the available resources mainly land. So that agriculture and livestock production is intensified and contribute significantly to poverty alleviation and sustaining communities with minimum damage to the environment, Tanzania should adopt sustainable technologies such as JUNCAO. The following are some of the justifications.

JUNCAO and crop-agriculture: Forest land area (% of total land area) has changed from 60.0, 55.5, to 51.2 in 1997, 2007, and 2017 respectively. Across these respective years, agricultural land has increased from 38.0, 40.2 to 44.8. Although agricultural land is expanding, production per unit area is still low because there is limited use of agri-inputs. One of the reasons is that farmers are not able to purchase inorganic fertilizers, which are normally sold at a high price. Therefore, improving soil health by using JUNCAO grass and substrates can contribute to solve the problem and thus improve the productivity of land and products per unit area.

JUNCAO technology and food production: Mushrooms are rich in proteins and minerals. JUNCAO grass will form an alternative solution to naturally but limited livestock fodder to feed different kinds of animals kept in Tanzania. Therefore, this technology will contribute to stabilize food production and domestic food price and ensure livestock fodder availability.

JUNCAO and livestock sector in Tanzania: Tanzania's livestock sector is growing rapidly. For example,

- i. Cattle: (heads in brackets) 1961 (8,063,658), 2000 (16,713,000), 2010 (19,245,000) 2014 (25,800,000) heads;
- ii. Goats: 1961(4,462,000), 2000 (11,888,955), 2010 (136,000,000), and 2014 (167,000,000) heads.

With this rapid livestock production, growing JUNCAO grass can contribute to overcome livestock fodder shortage and also reduce conflicts between livestock and other land users.

JUNCAO and environmental protection: Degradation of land is alarming in Tanzania. For example, forests area has been shrinking per year because of crop agriculture, livestock grazing, and lack of alternative activities for income generation (million ha in brackets after year); in 1990 (55,920), 2005 (49,920), 2010 (47,920) and 2015 (46,432). This trend is caused by activities such as. Mushroom farming can contribute to function as an alternative source of income hence reducing over-reliance on forest resources. Indeed, using JUNCAO Technology to produce mushrooms in a small piece of land will function to avoid further encroachments to the forest and reserved lands.

JUNCAO technology and employment. This technology can be practiced in urban and rural areas, hence will contribute to creating job opportunities for unemployed people especially women and youths.

JUNCAO technology and poverty alleviation: JUNCAO technology comprises different packages of technologies, which address a wide range of problems in developing countries, it is possible that through it, poverty alleviation will be fully addressed. Mushroom growers will get income from mushroom production and marketing, while the livestock sector will benefit from JUNCAO grasses by improving the health of animals and by-products.

Since JUNCAO Technology is a combination of various packages. At some stage, it is not possible, to begin with, all the components at once. It is possible to opt for one or a few components. For example, in Tanzania, we consider that 2021 is a watershed for JUNCAO Technology. Never before have so many institutions, local government authorities, international organizations, and ministries shown interest in JUNCAO Technology in providing forage solutions. This surge of interest is driven, among other things that vast areas of natural rangelands have been taken over by cropping systems, private livestock and game ranches, nature reserves, and infrastructure. As a result of the encroachment, the total area and overall diversity and condition of the remaining rangelands have declined, and through fragmentation, their accessibility has become constrained. Tanzania is aware that the global demand for meat and dairy products will increase by 52 and 40 percent respectively by 2050, compared to 2012, under a "business as usual" scenario (FAO, 2016). Also, the adoption of JUNCAO grass in line with Tanzania Development Vision 2025 which specifies that, "By the year 2025, there shall be a livestock sector, which to a large extent shall be commercially run, modern and sustainable, using improved and highly productive livestock to ensure food security, improved income for the household and the nation while conserving the environment" (URT-LIVESTOCK RESEARCH AGENDA 2020-2025).

It a high time not to view the animals in isolation from the natural environment (FAO, 2016). All the beneficiaries agree that now, more than ever, support is needed rangelands by growing pasture for pastoralism to meet productivity and sustainability goals. Efforts are in place to promote the deployment of JUNCAO Technology to improve the livestock sector in Tanzania. Some exemplary measures include the establishment of JUNCAO grass nurseries at (i) Maswa District, (ii) the Sokoine University of Agriculture, and (iii) the farm of his excellency Jakaya Mrisho Kikwete, the former president of the United Republic of Tanzania. At the national level, the Ministry of Livestock and Fisheries has approved Juncao grass to be growing massively in Tanzania. As I am making this speech the Ministry is planning to produce 8, 750, 000 seedlings of JUNCAO grass which are expected to be distributed to farmers in 2021 and 2022 year. The country hopes that these initial efforts will attract more investors in forage production and restore degraded ecosystems.

On behalf of all other stakeholders, let me recognize the technical and administrative support received from UNDESA, FAFU, UNDP, and all other stakeholders. We are looking and welcoming other partners to work with the Government of Tanzania so that that we can leverage resources to deploy massively JUNCAO Technology in Tanzania.

Business as usual" should be a no longer option for a livestock production in Tanzania and Africa

The End

Thank you for listening