

# Connecting Youth with Sustainable Agriculture through Off-Grid Integrated Farming Hub in 6 districts of Tanzania.

## Purpose and Objectives

### **Purpose: Specify how the CO intends to use the TRAC2 funds**

The Tanzania Country Office intends to use the TRAC2 funds to bring specific solutions to complex farm-related problems to youth farmers at their doorsteps, by setting up a sustainable, Off-Grid fully Integrated Farming Hub, with a complete ecosystem of smart farm technologies.

The purpose is to provide innovative technologies to youth farmers and youth agro-based SMEs to improve productivity and profitability of their economic undertakings. This will be done through use of Off-Grid Integrated Farming Hub (IFH) solution. The solution will include but will not be limited to renewable power systems, internet connectivity, storage device micro-drip irrigation systems, water pumps and organic manure recycled from food waste.

This integrated approach will address all three critical aspects of sustainable development (economic, environmental and social) through encouraging the best possible conditions for the optimum crop growth and making the best possible use of available inputs while observing good agricultural practices and conserving the environment.

The salient features of the Off-Grid Integrated Farming Hub (IFH) include innovation in farming for maximizing production through optimal use of local resources, effective recycling of farm & food waste for productive purposes, community-led local systems for water conservation, organic farming, and developing a judicious mix of income-generating activities through mixed crops. The IFH will build youth capacities and encourage them to adopt productive, remunerative, eco-friendly and self-sustaining integrated farming systems. WFP has piloted in Tanzania the concept of 'Farm from the Box' technology (<https://innovation.wfp.org/project/farm-box>). However, their approach is limited in-terms of scope and focus. Whereas they focus on refugees only, but UNDP will use an integrated approach employing innovative technological solutions and will focus on six districts with large number of youth instead, and that this goes hand in hand with the support we provide to the Ministry of Agriculture (MoA) for the ASDP II implementation.

## Objectives;

The objectives of the proposed interventions are to;

1. Enable youth to engage in sustainable agriculture through Off-Grid IFH Hub while supporting strategic partnership, collaboration, linkages to markets and finance.
2. Promote and drive an innovative concept that will enable sustainable management of food waste into organic fertilizers through the bio fertilizers and bio booster technology.

## Rationale

Tanzania is an agriculture-based economy with agriculture contributing nearly 29 per cent to the country's Gross Domestic Product (GDP).

Tanzania Development Vision 2015 and the Five-Year Development Plan II envision Tanzania to be a middle-income country by 2025. The contribution of agriculture to realization of this vision is seen to be substantial and to this end, Tanzania is rolling out the Agriculture Sector Development Programme phase

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II (ASDP II). It is acknowledged that Tanzania's economic growth and industrialization will be agro-base and therefore, a robust agriculture sector will be a key requirement for attaining the long term social and economic development goals and vision of the nation.

However, as mentioned, over the last ten years, the agriculture sector has registered a lower rate of growth, estimated at 4.2 per cent as against planned annual rate of 6 per cent, which was considered essential to propel the economy growth of 8 per cent per annum.

Lack of interest and/or disengagement of youth in agriculture due poor inputs, lack of infrastructure, mechanization, agro skills and know how, low farm gate prices and markets (local and abroad) are some of the reasons behind the decreasing agriculture growth rate.

UNDP is currently working with the Ministry of Agriculture to supporting the ASDP II implementation. The ASDP II has four components towards higher productivity, commercialization level and increase smallholder farmer income for improved livelihood and guarantee food and nutrition security. The Programme four major components are; (i) Sustainable Water and Land Use Management which aims at expanding sustainable water and land use management for crops, livestock and fisheries; (ii) Enhanced Agricultural Productivity and Profitability which will focus on increasing productivity, for some priority commodities; (iii) Commercialization and Value Addition which will focus on improved and expanded marketing, value addition promoted by a thriving competitive private sector and effective farmer organizations; and (iv) Sector Enablers, Coordination and Monitoring & Evaluation which will strengthen institutions, create enabling conditions and provide coordination framework. The main objective of ASDP II is to transform the agricultural sector (Crops, livestock & fisheries) towards higher productivity, commercialization level and increase smallholder farmer income for improved livelihood and guarantee food and nutrition security. The envisaged project for which TRAC 2 is being applied for will complement the implementation of the ASDP II, specifically by contributing to the Components (ii) and (iii). This will be done through employing the IFB solution with a complete ecosystem of smart farm technologies in six districts, namely, Bunda, Same, Moshi Rural, Siha, Arumeru, Busega. Young entrepreneurs from the mentioned districts in groups of 5 to 10 members will team up to come up with innovative ideas.

This approach is unique because it is mostly intended to drive young people into getting more interested in agribusiness. Ideally, main crops include but are not limited to green salad, garlic, carrots and also tomatoes, water melons, cucumbers, green beans and sweet peppers etc.

This integrated sustainable farming will localize agribusiness production and cut off dependency on rain-fed agriculture which too often limits growing seasons and limit incomes to youth. By introducing a complete ecosystem i.e. greenhouses and open field production, we will extend the growing season and better support different kinds of crops throughout the year, thereby increasing production and incomes.

This project will break poverty trap by providing appropriate technologies and training (sustainable farming practices, technology use and maintenance and farming as an enterprise) that can help the resilience of youth, increase and stabilize their farm productivity, increase the availability of healthy nutritious crops, provide low costing agricultural commodities and through increased production, boost the income levels, while stimulating economic growth of these youth. All crops will be grown purely

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organically, no GMO, no steroids, no chemicals, no growth hormones, making sure we supply healthy and fresh crops to the market in a consistent, timely and affordable manner.

Additionally, this project will promote the bio-fertilizers and bio-booster technology to establish cost-effective and environmentally sustainable ways of diverting household food waste from landfills to the production of saleable products (organic fertilizer and plant booster).

## **Approach**

In collaboration with partners which will be identified once funding is allocated, UNDP will conduct “**Kijana na Kilimo Challenge**” (“**Youth in Agriculture Challenge**”) as a platform to gather compelling, innovative ideas from the youth groups, and the TRAC funded project will support demand driven agri-business ideas by youth groups in the 6 district Bunda, Same, Moshi Rural, Siha, Arumeru, Busega. Using this project, UNDP working with UNCDF will also test the blending finance instrument (Grants, equity– concessional loans to youth groups/SMEs) during implementation.

## **Alignment with facility objectives:**

The proposal speaks to TRAC 2 objectives as follows:

- Resources from the TRAC2 will help to 'seed' the development of the country programme in this area, through the development of the Off-Grid Integrated Farming Hub to provide innovative technologies to youth farmers and youth agro-based SMEs to improve productivity and profitability of their economic undertakings. Though this project is catalytic, it will be able to entice the youth (34% of Tanzania’s population qualifies as young) out of poverty through their participation in integrated farming and the smart technology. This will enable also the formulation of innovative ideas, that will in turn enable the establishment of systemic transitions and structural transformations in agricultural diversification, new technology and skills access, alignment, adoption as well as investment in new technologies, including those that help reduce emissions as critical for sustainable development.
- This project envisages to create a multi stakeholders’ partnership opportunity with the private sector, local government, and other development partners capacities and systems to deliver better results; the project will also link the initiative to research institutions which can both share researching findings and provide feedback on solutions and opportunities through the development of tools to leverage development opportunities and tackle challenges. The initial focus will be in 6 districts with large number of youth activities in agribusiness (i.e. Bunda, Same, Moshi Rural, Siha, Arumeru, Busega).
- The salient positive impacts include those that are related to Improved agricultural productivity (SDG 1) especially amongst smallholder farmers, those that will increase incomes in agricultural zones /farming areas (Goal 1), where much of the income is tied to farming, which creates opportunity for women and children to pursue education (Goal 4) boosting gender equality (Goal 5).
- This initiative will help UNDP to lead in demonstrating proof of concept for the increased use of technology to underpin innovative solutions for youth engagement in smart agribusiness.

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- This project aligns with TRAC 2 objective: “systematic utilization of innovation at-scale to provide substantial value addition to country level SDG efforts. Also, it is in line with national priorities (ASDP II) to continue and accelerate the economic transformation of Tanzania as it moves to Middle Income Status whilst reducing poverty rates, this project will promote growth which is inclusive, specifically pro-poor and provides opportunities for decent and productive employment, for women and youth.

## **Specify how the purpose aligns with the objectives of TRAC2**

1. Enhance productivity and diversify the product mix and linkages in industry and agriculture to be able to compete regionally and globally
2. **Linkage** to more than One SDG goals: SDG 2; SDG 7; SDG 9, SDG 12, SDG 17; Agenda 2063: Aspirations 7 and 2.
3. **Innovative:** the integrated farming technology tries to address the various elements from a systems perspective on critical issues that include poor yields, poor inputs, lack of infrastructure, climate change, mechanization, agro skills and know how, low farm gate prices and markets (local and abroad) and above all lack of interest and/or disengagement of youth in agriculture.

**Replicability & Scalability:** The proposed integrated farm solution is likely to be of interest to stakeholders in other regions and it will provide opportunities for adaptation and facilitate replication and scaling-up. ASDP II Components 2 and 3 respectively; Enhanced Agricultural Productivity and profitability and Commercialization and Value Addition (build competitive CVC).

<http://www.kilimo.go.tz/index.php/en/programmes/view/agricultural-sector-development-programme-asdp>

4. **Catalytic** with potential for resources mobilization especially from non-traditional donors: the initiative is expected to crowd-in resources and provide partnership opportunities with non-traditional partners like private sector, philanthropist and local governments.
5. **Impact on gender equality:** women and youth (female & male), who constitute a significant proportion of agribusiness in the informal sector, are likely to benefit. The initiative can also create direct opportunities for youth -led SMEs to benefit from enhanced opportunities.

## ***Alignment with regional priorities:***

Despite the relatively negative perceptions, the agricultural sector employs as much as 60% of Africa’s labour force, according to the Africa Economic Outlook Report 2013, published jointly by the African Development Bank, the Organisation for Economic Co-operation and Development and the UN Development Programme. Yet because of low productivity, the sector accounts for only 25% of the continent’s gross domestic product (GDP). Despite such grim statistics, the sector has huge potential.

This project aligns with regional priorities particularly on inclusive growth and sustainable development as this project will enhance livelihoods and inclusive employment of youth and women while promoting economic growth, boosting human development and reducing poverty and inequalities.

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This project will use South South/Triangular Cooperation to learn from other countries existing initiatives that have worked well and those have faced challenges. Countries within the region such as Kenya, Ethiopia and South Africa where there are various youth agricultural value chain initiatives, can provide good lessons to the IFH. <http://knowledge4food.net/eknlearning-kenya-towards-innovative-inclusive-horticulture-market/> <https://www.israel21c.org/sowing-seeds-of-success-on-ethiopian-farms/>

The project also will contribute to the achievement of the AU 2063 Agenda whose targets are to create of 25 million jobs and up-skill 50 million youth. Ultimately the project will also contribute to AU`s priority of realizing the demographic dividend.

## **Total amount requested:**

2019 – **USD 1,200,000**

## Expected Results

### **Resource Mobilization**

#### **Result # 1: Resource Mobilization Opportunity (Scale up the Sustainable business models):**

This project will be used as catalyst whereby through its implementation it will create an informed environment with demonstrative effects, stimulate demand and showcase a business model that can be replicated and scaled up through government and/or development partners financing and can as well be picked up by private sector actors to participate in the private sector interested in Integrated farming Hub business through mobilization of service providers i.e. Marketing, packaging, transporters, inputs suppliers, ICT , financiers and consultants.

#### **Result # 2 Stimulation of Sustainable business partnerships**

The project will promote partnership across the board with UN Agencies, especially we hope WFP y i.e. UNCDF, IFAD and FAO, Local government, private sector and communities at large. Through its direct impacts on socio-economic aspects critical to economic development such as sustainable agriculture practices, the project will spur development and growth of other related businesses and services dependent on reliable food supply, thus forming a virtuous and sustainable business partnerships.

### **Programme Results**

**Result #1:** Out of 1000 the youth accessing the Integrated Farming Hub, 30% will have developed innovative new agribusiness projects to address key development challenges (in line with the SDGs) in their respective regions.

**Result #2** Technical capacity to support innovations (to access new networks, technologies, trainings) increased at the productivity and income. At least three new innovative solutions to unlock youth entrepreneurship and unemployment challenges developed and launched.

**Result #3:** A de- risk and catalytic fund established and running. At least 10 youth led from each mentioned regions project/initiative funded.

### **Other Benefits:**

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**Result 1:** This initiative will contribute to government youth engagement program through increased engagement of youth in productive activities. Furthermore, this initiative will serve as a prototype to similar integrated farming Hub that will be replicate or scale up in other districts.

## **Indicators of Success**

**Indicator 1:** Three integrated farming hub for youth established and pilot tested engaging the private sector and local government

**Indicator target:** At least 1000 youth access integrated farming hub out of which 30% total target will develop initiatives to support the Sustainable Development Goals (SDGs)

**Baseline:** Zero in the targeted districts

**Source of data:** Report

**Timeline for target:** December 2019

**Indicator:** Number of innovative solutions tested at the Integrated Farming Hub to enhance the competitiveness of the youth led agribusiness

**Indicator target 2:** At least 3 new solutions tested resulting in positive changes in the competitiveness (smart farming, storage facility, access to new markets) of the agribusiness led by youths or with high engagement of youth

**Baseline:** Zero

**Source of data:** Reports

**Timeline for target:** December 2019

**Indicator:** Number of private sector actors, UN Agencies, DPs and Local government making commitments to de risk capital invested in youth initiatives including the value of the commitments made (both cash and in kind)

**Indicator target 3:** At least 3 commitments made to expand the size of the risk guarantee fund

**Baseline:** Zero

**Source of data:** Report

**Timeline for target:** December 2019

The project result is directly linked with CDP and SP

**Strategic Plan Outcome 1:** Growth and development are inclusive and sustainable, incorporating productive capacities that create employment and livelihoods for the poor and excluded.

**CPD Outcome:** The economy is increasingly transformed for greater pro-poor inclusiveness, competitiveness and increased opportunities for decent and productive employment.

**CPD Output 3.** Capacities of women's and youth enterprises in the 28 districts enhanced to grow and add value to their products for increased income.

**Indicator 3.1:** Number of youth and women's enterprises benefiting from increased income and market access

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**Indicator 3.2:** Number of male and female youth in job creation schemes

## Implementation

**Key Activities, Costs, and Timeline:**

Activity	Description	Budget	Time line
<b>Phase1: Project identification, establishment partnership arrangement and Studies</b>	<ul style="list-style-type: none"> <li>Conduct economic study</li> <li>Meeting with Stakeholders i.e. TAHA</li> <li>Fact finding missions – Market linkages &amp; Access</li> <li>Meetings with Local government authority in six districts</li> <li>Youth Challenges; Call for proposal</li> </ul>	50,000	Jan – May 2019
<b>Phase 2: Acquiring &amp; installation of Integrated Farming Hub</b>	<ul style="list-style-type: none"> <li>Procurement of integrated farming Hub and Associated equipment's</li> <li>Installation of integrated farming hub in 6 districts</li> <li>Promote and support Bio fertilizers and Bio Booster technology solution</li> </ul>	1,000,000	May – July 2019
<b>Phase 3: Execution of the project</b>	<ul style="list-style-type: none"> <li>Capacity Building for the youth and women on Entrepreneurship and technical skills</li> <li>Strengthen the post-harvest handling (technologies &amp; compliance)</li> <li>Study tours (SSC) to South Africa, Israel etc.</li> <li>Consolidate the project's operations to maximize its impact and commercial viability</li> </ul>	100,000	July – Dec 2019
<b>Monitoring &amp; Evaluation, Audit, Communication and DPC</b>	<ul style="list-style-type: none"> <li>Project monitoring and oversight</li> </ul>	100,000	Dec 2019

### Risks

The project will not be accepted and supported by all stakeholders

**Risk rating:** low

**Mitigation:** All key stakeholders will be informed and educated about the project. This will be done continuously including through validation workshops/meetings.

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**Factors external to the project such as economic, social, political and technological situation will not remain supportive to the project**

**Risk rating:** low

**Mitigation:** External factors will be closely monitored to avoid surprises

**External intervention risk:**

Other development projects and government initiatives interfere with the project

**Mitigation**

- Continuous dialogue with government and development community
- Adequate reporting of progress and results to policy makers