



Promising Technologies

The technologies showcased here are not yet ready to be scaled but are promising.

2 TECHNOLOGIES | CREATED ON JAN 28, 2025 BY TAAT PROFILING TEAM | LAST UPDATED JUL 30, 2025



TECHNOLOGIES IN THIS TOOLKIT

- **LIFE Plant Biostimulants:** Approach to produce microbials fertilizers
- **SOP:** Standard Operating Procedure for Tilapia hatcheries



<https://taat.africa/zmz>

LIFE Plant Biostimulants: Approach to produce microbial fertilizers

Bio-stimulant for free smallholders' access to biofertilizers to support enhanced plant yields!

Lactobacillus Serum and Fish Hydrolysate are organic microbial fertilizers that enhance soil health, nutrient absorption, and crop productivity. These biostimulants, rich in amino acids, improve plant growth while being classified differently across countries based on regulatory frameworks.



Lifeworks Global
solutions for a better world

Lifeworks Global
Paul Manweiler

Commodities

Vegetable crop

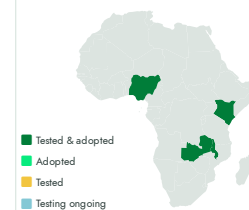
Sustainable Development Goals



Categories

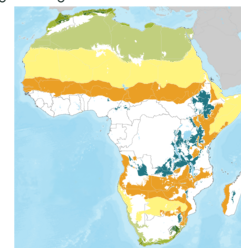
Pre-production, Inputs, Fertilizer

Tested/adopted in



Where it can be used

This technology can be used in the colored agro-ecological zones.



Target groups

Farmers, Manufacturers

! This technology is **not yet validated**.

5-6



Scaling readiness: idea maturity 5/9; level of use 6/9

Gender assessment

4

Climate impact

6

Problem

- **High Fertilizer Costs:** Smallholder farmers struggle to afford synthetic fertilizers, reducing their ability to optimize yields.
- **Declining Productivity:** Limited access to fertilizers results in suboptimal applications, leading to reduced agricultural productivity and lower yields.
- **Soil Degradation:** Prolonged use of synthetic inputs depletes soil health.

Solution

- **Boosts Productivity:** Enhances nutrient availability and crop growth, leading to higher yields and sustainable production systems.
- **Improves Stress Resilience:** Strengthens plants against drought, temperature extremes, nutrient imbalances, and other climate-induced stresses.
- **Promotes Soil Health:** Restores soil pH, increases organic matter, enhances microbial diversity, and supports nutrient cycling.

Key points to design your project

Lifeworks Global's Plant Biostimulants technology enhances crop productivity, improves soil health, and boosts resilience to climate change. With rising fertilizer costs, biostimulants offer an affordable alternative, especially for smallholder farmers.

Key activities for adoption include:

- **Farmer training** on biostimulant application methods (seed soaking, foliar feeding, root drenching).
- **Capacity building** through the Training of Trainers (ToTs) model for local production.
- **Communication support** to raise awareness (flyers, videos, radio broadcasts).
- **Collaboration** with agricultural organizations for widespread adoption.

This technology, paired with resilient crop varieties and soil fertility enhancement practices, promotes sustainable agriculture, food security, and improved farm productivity.

300 USD

Process cost

66.7 %



No formal IP rights



LIFE Plant Biostimulants

<https://taat.africa/jfi>

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SOP: Standard Operating Procedure for Tilapia hatcheries

SOP for a productive, high value and market-oriented aquaculture sector.

Standard Operating Procedures (SOPs) provide clear, step-by-step instructions for performing routine tasks in fish farming. They ensure consistent and high-quality operations, covering important areas like daily care, water quality, and fish health management.



Commodities

Fish

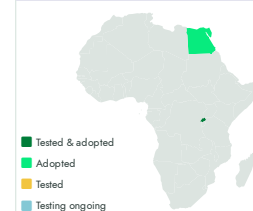
Sustainable Development Goals



Categories

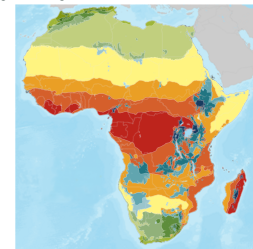
Production, Practices, Water management, Yield improvement

Tested/adopted in




Where it can be used

This technology can be used in the colored agro-ecological zones.



Target groups

Fish Farmers

 This technology is **not yet validated**.

 9.5



Scaling readiness: idea maturity 9/9; level of use 5/9

Gender assessment

 3

Climate impact

 2

Problem

- Low production capacities mainly due to poor management of broodstocks,
- Low survival rates of the produced fries/fingerlings,
- Poor growth rates and others

Solution

SOPs allows fish farm owners to reduce:

- The likelihood of a disease outbreak,
- Mass fish mortality,
- Significant financial losses due to the loss of fish, and
- SOPs are a useful tool that maintain farm quality standards.

Key points to design your project

Implementing Standard Operating Procedures (SOPs) for tilapia hatcheries promotes food security, sustainable aquaculture practices, and economic growth.

- To incorporate SOPs into your project, consider:
- Assessing feasibility,
- Developing supportive regulations, and
- Providing training for farmers on broodstock management, water quality, and fish health.



Open source / open access



SOP

<https://taat.africa/zdt>

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Promising Technologies

<https://taat.africa/zmz>

ABOUT US

TAAT

TAAT, Technologies for African Agricultural Transformation, is an African Development Bank initiative to boost agricultural productivity by rapidly rolling out proven technologies to more than 40 million smallholder farmers.

TAAT aims to double crop, livestock, and fish productivity by 2025 by engaging both public and private sectors to expand access to productivity-increasing technologies across the continent. TAAT advises African government who receive funding from international financial institutions such as the African Development Bank to help them integrate the best agricultural technologies in their development projects. TAAT also offers technical assistance for the integration of these technologies, when needed.

TAAT Technologies

TAAT definition of agricultural technologies is very broad: they include improved varieties, inputs, equipment, agricultural infrastructure, practices and agricultural policies. In short, any solution to an agricultural constraint. TAAT technologies have been developed by a wide variety of organizations: the CGIAR, other international research institutions, national research organizations, or the private sector.

TAAT Clearinghouse

Within TAAT, the Clearinghouse has the remit to select, profile and validate agricultural technologies, and showcase them in online

catalogs to support the advisory role that the Clearinghouse offers to governments and the private sector. The Clearinghouse strives to be an 'honest broker' of technologies through its selection, profiling, validation and advice.

TAAT e-catalogs

The e-catalogs are designed to be used by decision-makers within governments, private sector companies or development organizations. They facilitate the search for appropriate solutions that are adapted to local conditions and requirements, and provide all necessary information, presented in jargon-free and easy to analyze technology profiles. Once a decision-maker has selected a technology of interest, the e-catalogs facilitate their direct contact with those who can help them implement the technology, whether they are a research group or a private company.

TAAT Technology Toolkits

Technology toolkits are hand-picked selections of technologies from the TAAT e-catalogs. We offer some curated toolkits for specific cases, and registered users can create their own toolkits, showcasing their selection of technologies. Toolkits can be used online and shared as links, as mini e-catalogs, they can also be downloaded, saved, shared or printed as collections of technology pitches in PDF format (pitches are one-page summaries of technology profiles, available for all technologies on the e-catalogs).

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