

## **Business Plan: Establishment of a Pesticide Manufacturing and Formulation Enterprise in Tanzania**

Project Proponent: Positive International Limited

Total Investment: \$1,200,000 USD

Project Location: Mbeya, Tanzania

### **1.0 Project Synopsis**

**Project Vision:** To establish Tanzania's leading state-of-the-art facility for the formulation and manufacturing of high-quality, effective, and safe agricultural chemicals (pesticides).

**Mission Statement:** To empower Tanzanian farmers and advance national food security by locally manufacturing and distributing a reliable supply of crop protection solutions. We aim to mitigate global supply chain disruptions, enhance farmer productivity, and build a sustainable, profitable enterprise that fosters economic growth within Tanzania and the SADC region.

**The Problem:** Tanzania's agricultural sector is critically dependent on imported pesticides. This reliance creates severe vulnerabilities, including:

- **Extreme Lead Times:** Shipments are subject to delays of up to **six months**.
- **Capital Inefficiency:** Farmers and agro-dealers must tie up capital in excess inventory, ordering months in advance without knowing the season's actual pest pressure.
- **Product Unavailability:** Port congestion and shipping delays mean essential products are often unavailable during critical application windows.

**Our Solution:** Positive International Limited will build a local manufacturing and formulation facility in Mbeya, Tanzania. This facility will drastically reduce product lead times from months to weeks, providing farmers and distributors with a reliable, timely, and flexible supply of crop protection solutions tailored to local needs.

**Business Model:** The enterprise will follow a two-phase growth model:

- **Phase 1 (Years 1-2): Market Entry & Core Production.** We will focus on producing a core range of high-demand formulations, including WDG herbicides, DP (Dustable Powder) formulations for grain preservation, SL (Soluble Concentrate) Herbicides, WP

(Wettable Powder) Fungicides, and EC (Emulsifiable Concentrate) insecticides. This establishes our operational footprint and brand reliability.

- **Phase 2 (Years 3-5): Portfolio Expansion.** We will expand our technical capabilities to include more advanced formulations such as SC (Suspension Concentrate), OD (Oil Dispersion), and Liquid Glyphosate Herbicides, broadening our product portfolio to meet evolving market demands.

**Competitive Advantage:** Our advantage is built on three pillars:

1. **Supply Chain Dominance:** Local production eradicates international shipping delays, ensuring a reliable supply.
2. **Certified Quality Assurance:** We will establish a Certified GLP (Good Laboratory Practice) Laboratory to ensure all products meet stringent quality and safety standards.
3. **Strategic Location:** Our Mbeya facility is located in Tanzania's agricultural heartland, perfect for national distribution and export to neighboring SADC countries.

**Financial Highlights:** We are seeking a total investment of \$USD 1,200,000. This capital will finance facility construction, procurement of advanced formulation and lab equipment, and provide working capital for the first operational year. Five-year financial projections show strong commercial viability, with a positive Net Present Value (NPV) and an Internal Rate of Return (IRR) that significantly exceeds regional benchmarks. The initial investment is projected to be recovered in Year 3.

**Socio-Economic Impact:** The project will create 25 direct jobs. It will support thousands of smallholder farmers by providing reliable inputs and strengthen the rural economy by bolstering the agro-dealer network. It will also contribute to national food security and save valuable foreign exchange by reducing reliance on finished imported goods.

## 2.0 Corporate Profile and Mission

### 2.1 Corporate Identity

- **Company Name:** POSITIVE INTERNATIONAL LIMITED
- **Incorporation Number:** 84848
- **Incorporation Date:** July 28, 2011
- **Project Activity:** PESTICIDES MANUFACTURING (AGRICULTURAL CHEMICALS)

## 2.2 Core Values

- **Quality:** An uncompromising commitment to product efficacy and safety, validated by our in-house GLP lab.
- **Reliability:** To be the most dependable partner for farmers and agro-dealers, ensuring product availability when it matters most.
- **Farmer-Centric:** Designing products, packaging, and support systems that directly address the on-the-ground needs of Tanzanian farmers.
- **Integrity:** Upholding the highest ethical and environmental standards in all operations.
- **Innovation:** Continuously improving our formulations and processes to adapt to changing climatic and agricultural needs.

## 3.0 The Market Problem and Our Solution

### 3.1 The Crisis of Import Dependency

The Tanzanian agricultural sector is the backbone of the economy, but it is highly vulnerable. The complete reliance on imported pesticides creates a fragile and inefficient supply chain. Stakeholders are forced to "guess" their needs 6-8 months in advance, leading to constant mismatches in supply and demand. This strains the budgets of farmers and agro-dealers alike.

### 3.2 The Local Manufacturing Advantage

By manufacturing locally, we replace this uncertainty with on-demand reliability. We will be able to respond to in-season pest outbreaks, sudden weather changes, and fluctuating market conditions, giving our customers an unprecedented level of flexibility and control.

### 3.3 Target Clientele

1. **Agro-Dealer Networks:** These are our primary channel. We will provide them with a reliable, locally-sourced supply, reducing their inventory risk and high capital costs.
2. **Farmer Cooperatives & SACCOs:** We will partner with these groups to offer bulk purchasing advantages and secure supply for their members.
3. **Institutional Buyers:** This includes large-scale commercial farms and NGOs, who prioritize supply security and quality assurance.

### 3.4 SADC Regional Potential

Our Mbeya location is not only central to Tanzania's "breadbasket" but also strategically positioned for regional export. The facility is envisioned as a hub for the SADC region. We can leverage Tanzania's port infrastructure to import raw materials and export finished goods to neighboring countries, enhancing regional food security.

## 4.0 Production and Operational Blueprint

### 4.1 Strategic Site: Mbeya

- **Site:** Plot Number 20, Block A, Iyunga Mapinduzi Ward, Mbeya District, Mbeya Region.
- **Rationale:** Mbeya is a major agricultural hub, providing proximity to our largest customer base and offering excellent transport links for both national distribution and regional export.

### 4.2 Facility and Technology

The facility will be a state-of-the-art operation, including:

- **Manufacturing Plant:** Housing dedicated, flexible production lines for our phased rollout (e.g., jet mills for WP, fluid bed granulators for WDG, bead mills for SC, and liquid/powder filling lines).
- **Certified GLP Laboratory:** This is the heart of our quality commitment. It will be equipped with advanced analytical instruments (e.g., HPLC, GC, particle size analyzers) to ensure all raw materials and finished products meet strict CIPAC and national standards.
- **Raw Material & Finished Goods Warehouse:** A secure, climate-controlled facility for safe storage.
- **Tailored Packaging Unit:** A dedicated line to produce packaging in sizes and formats specifically designed for Tanzanian farmers (e.g., small, affordable single-use sachets to larger bulk containers).

### 4.3 Phased Formulation Strategy

Our production will be capable of handling a wide range of active ingredients:

- Phase 1 Products (Years 1-2):
  - **Herbicides (WDG, SL):** Atrazine, 2-4D Amine

- **Insecticides (EC, DP):** Lambda Cyalothrin, Emamectin Benzoate, Acetamiprid
- **Fungicides (WP):** Mancozeb, Carbendazim
- **Grain Preservation (DP)**
- Phase 2 Products (Years 3-5:
  - **Advanced Herbicides:** Liquid Glyphosate, Acetochlor
  - **Advanced Formulations (SC, OD):** Thiamethoxam, Hexaconazole

#### 4.4 Organizational Structure and Team

The enterprise will be led by an experienced General Manager and structured for efficiency and clear accountability.

- **General Manager (CEO)**
  - Finance & Administration Manager
    - Accountant
    - HR & Admin Staff
  - **Operations Manager**
    - Production Supervisor
      - Plant Operators
      - Packaging Team
    - Supply Chain & Logistics Officer
    - Maintenance Technician
  - **Head of Quality & Compliance**
    - GLP Laboratory Manager
    - QC/QA Analysts
    - Regulatory Affairs Officer
  - **Sales & Marketing Manager**
    - Regional Sales Lead
    - Technical Field Agronomists (for farmer training)
    - Marketing & Distribution Coordinator

**Human Resources:** The project will create 25 total jobs:

- **Local Employment:** 22 (14 men, 8 women)
- **Foreign Employment:** 3 (3 men)

## 5.0 Sales and Market Penetration Plan

### 5.1 Our Multi-Channel Sales Approach

Our strategy is to push product through a reliable agro-dealer network while simultaneously pulling demand from end-users (farmers).

- **Channel 1: Agro-Dealer Networks (Push):** We will be the supplier of choice for agro-dealers by offering what importers cannot:
  - **Rapid Fulfillment:** Orders delivered in days, not months.
  - **Reduced Capital Risk:** No need for dealers to tie up cash in large, speculative advance orders.
  - **Local Support:** Training, marketing materials, and a dedicated sales team.
- **Channel 2: Institutional Buyers (Push):** Direct sales to farmer cooperatives, NGOs, and large farms, offering bulk pricing and guaranteed supply.

### 5.2 Building Farmer Demand (Pull Strategy)

We will build brand loyalty and generate demand at the grassroots level through:

- **Demonstration Plots:** Establishing plots to showcase the efficacy of our products against local challenges.
- **Farmer Field Days:** Hosting training events focused on correct application, safety (IPM), and climate-resilient practices.
- **Branding & Anti-Counterfeiting:** Our products will be sold in high-quality, durable packaging with clear instructions in Swahili. We will explore authentication features (like scratch-off SMS codes) to protect farmers from counterfeit goods.

## 6.0 Investment and Financial Viability

### 6.1 Total Capital Requirement

The total required investment to launch the project is **\$USD 1,200,000**. This is a foreign-owned investment. This will be allocated to capital expenditures and initial working capital.

### 6.2 Capital and Operational Budget (USD 1,200,000)

This budget is designed to build a robust, high-quality facility and ensure sufficient operational liquidity from day one.

Category	Item	Estimated Cost (USD)
<b>A. Capital Expenditure (CAPEX)</b>		
	Land Lease & Site Preparation	\$75,000
	Plant, Warehouse & Office Construction	\$300,000
	Production & Formulation Lines	\$150,000
	GLP Laboratory Equipment (HPLC, GC, etc.)	\$100,000
	Logistics Fleet (1 Truck, 2 Pickups)	\$50,000
	Office Equipment & IT Systems	\$25,000
	<b>Subtotal CAPEX</b>	<b>\$700,000</b>
<b>B. Working Capital &amp; Pre-Op</b>		

	Initial Raw Material & Packaging Inventory	\$200,000
	Staff Salaries & Recruitment (Year 1)	\$150,000
	Licensing, Legal & TIC/TPHPA Fees	\$30,000
	Contingency Fund (~10% of Total)	\$120,000
	<b>Subtotal Working Capital</b>	\$500,000
<b>TOTAL USE OF FUNDS</b>		\$1,200,000

**6.3 Projected Cash Flow (5-Year)**

The projections below demonstrate a strong growth trajectory as the facility ramps up to full production and captures market share from inefficient importers.

(All figures in USD '000)	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Income</b>	500	1,500	2,500	3,500	4,500
<b>Expenditure</b>	-1,000	-1,100	-1,800	-2,500	-3,200
<b>Net Income</b>	-500	400	700	1,000	1,300

<b>Cumulative Income</b>	-500	-100	600	1,600	2,900
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## 6.4 Return on Investment (ROI) Analysis

The financial model demonstrates a highly attractive investment:

- **Break-Even Analysis:** The project is projected to reach its operational break-even point during Year 2.
- **Payback Period:** The initial investment of **\$1,200,000** is projected to be fully recovered during **Year 3** of operations.
- **Investment Appraisal:** The project's **Internal Rate of Return (IRR)** is calculated to be significantly higher than the regional weighted average cost of capital (WACC), and the **Net Present Value (NPV)** is strongly positive, indicating significant value creation.

## 7.0 Risk and Mitigation Framework

<b>Risk Category</b>	<b>Specific Risk</b>	<b>Mitigation Strategy</b>
<b>Operational</b>	Supply chain disruption for imported <i>raw materials</i> (active ingredients).	Develop a diversified supplier base from multiple countries. Maintain strategic buffer stocks for critical inputs.
<b>Market</b>	Competition from established importers of well-known pesticide brands.	We will not compete on brand alone, but on reliability and speed. We will compete on speed of delivery and consistent availability, which is the primary market pain point. Our quality assurance lab will build brand trust locally.

<b>Financial</b>	Volatility in raw material costs and foreign exchange (FX) rates.	Implement strategic procurement and hedging strategies where feasible. Maintain pricing flexibility to pass on significant cost changes while remaining competitive against 6-month-lead-time imports.
<b>Regulatory</b>	Delays in product registration with the Tanzania Plant Health and Pesticides Authority (TPHPA).	Maintain a proactive, transparent relationship with TPHPA. Our in-house GLP lab will ensure all dossiers and samples fully comply with national standards to expedite registration.

**8.0 National and Community Impact**

**8.1 Empowering Agricultural Livelihoods**

By providing a stable, timely, and reliable supply of necessary crop protection tools, this project directly empowers farmers. They will be better equipped to manage pests and diseases, especially those exacerbated by climate change. This leads to more stable and higher yields, improved household incomes, and enhanced food security for farming households.

**8.2 Economic Contributions**

- **Employment:** Creation of 25 direct, skilled jobs in Mbeya and numerous indirect jobs in logistics and distribution.
- **Foreign Exchange Savings:** Local formulation and manufacturing significantly reduce the nation's reliance on finished imported goods, preserving valuable foreign currency reserves.
- **Support for SMEs:** Our business model is designed to strengthen the network of local, rural agro-dealers, who are vital small and medium enterprises in the agricultural value chain.

### **8.3 Commitment to Quality, Health, and Safety**

Positive International Limited places the highest importance on producing quality pesticides while prioritizing health, safety, and the environment. Our GLP laboratory will collaborate with the Ministry of Agriculture to ensure all products in the market meet the highest quality standards, safeguarding the health of farmers, consumers, and the environment.