



Mapepa Handmade Paper Manufacturing

Business Investment Plan for Tanzania Investment Center

Investment Phase 1: 2025 – End 2029

Date: 5th February 2025

Plot No 272. Block B
Kange Area
TANGA CITY
TANZANIA
Telephone: +255 767 321 387
Email: farayi.z@gmail.com

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1. EXECUTIVE SUMMARY

Investing Company	Business Division
Mapepa Karatasi Ltd Pulp paper manufacturing. Established 1989 Zimbabwe, South Africa, Botswana & now EA	Pulp paper manufacturing from sisal waste in partnership with Tanzania Sisal Board
Target No of Employees & Cooperatives	Capital Investment
Employing 42 staff by year 5 272 Cooperatives (+3,500 members) impacted by year 5	NPV of US\$1.5m Capital Investment of US\$380,000 over 3 years (TSH969 million)

No of registering Cooperatives

	2025	2026	2027	2028	2029	2034
Mapepa Karatasi	Yr1	Yr2	Yr3	Yr4	Yr5	Yr10
Registered Cooperatives	12	46	91	161	272	494
Estimated No Employed in Coops	120	610	1,210	2,140	3,560	6,400

Mapepa Karatasi Financial Projections

US\$	2025	2026	2027	2028	2029	2034
Income Statement	Yr1	Yr2	Yr3	Yr4	Yr5	Yr10
Sales Revenue	114,307	1,207,713	1,924,149	3,257,786	5,222,468	9,641,761
Contribution to Operating Expenses	32,659	345,061	549,757	930,796	1,492,134	2,754,789
EBIT	(78,273)	58,349	137,570	344,836	648,910	1,319,918
EBIT %	-68%	5%	7%	11%	12%	14%
Tax	-	24,154	38,483	65,156	104,449	192,835
PAT%	-68%	3%	5%	9%	10%	12%

Mapepa Karatasi projected tonnage

	2025	2026	2027	2028	2029	2034
Mapepa Karatasi	Yr1	Yr2	Yr3	Yr4	Yr5	Yr10
Manufactured paper purchases from Coops (\$)	27,648	469,152	931,392	1,650,240	2,726,784	4,879,872
No of A1 Paper purchased from Coops (tons)	4,608	78,192	155,232	275,040	454,464	813,312
Tons of raw sisal harvested from sisal manufacturing	9,216	156,384	310,464	550,080	908,928	1,626,624
% of TSB waste converted by Mapepa Karatasi	0%	5%	10%	18%	30%	54%

Sisal waste saving	Tanzania Tax
Converting the 96% raw sisal waste from sisal production, currently with zero value to income and value for farmers, factories & cooperatives	Contributing \$105,000 in Corporate Taxes by year 5. Excluding VAT and PAYE that shall also be payable.
Equipment Manufacturing	Pulp Paper Making Training
Partnering with local engineers and fundi's to manufacture \$1m worth of machinery and parts.	Training +3,560 individual cooperative members by year 5 on pulp paper manufacturing.
Pulp Paper Manufacturing	Coop Member Earnings
Manufacturing annual 455 metric tons (US\$2.7m) by year 5, of pulp paper for local and export sales	Individual coop members shall earn approximately \$2-\$5 daily from pulp paper manufacturing

2. COMPANY BACKGROUND

Mapepa Karatasi Ltd is a for-profit manufacturer of quality pulp paper and handcraft products for local and international markets. We are partnered as a franchise with Handmade Papers of Africa (Mapepa) Ltd in Zimbabwe that was established in 1989. Our paper products are sustainably and ecologically manufactured through local cooperative communities especially women and youth whom we equip, train and provide a viable market to sell their production.

The company name: Mapepa Karatasi Ltd.

The establishment date: 9th July 2024.

Project launch phase: Phase 1, operating until Dec 2028

The current temporary office site is 1571 Nova Road, Kawe Beach in Dar Es Salaam.

Telephone: +255 767 321 387, Email: farayi.z@gmail.com

This strategic plan document is focused on the launch of Mapepa Karatasi Ltd in the Republic of Tanzania and the establishment of its community pulp-paper manufacturing centres.

3. Mapepa Karatasi Vision

- 3.1. Uplifting community groups to profitably manufacture quality handmade paper and handcraft products from agri-fibre and recycled waste materials.
- 3.2. Providing women's' and youth community groups with reliable and profitable markets for their collaborative production.
- 3.3. Crafting Mapepa patented waste reduction solutions for the agriculture and waste management industries across Africa.

4. Mapepa Karatasi Values

4.1. Environment

Rid our environment of agri-fibre and garbage waste and offer sustainable solutions to monetize the waste disposal through community groups while exceeding regulatory authority guidelines.

4.2. Community

Clean the environment we live in and reduce post-harvest losses by offering manufacturing opportunities for communities to manufacture secondary products with fair reward for their productivity.

4.3. Education

Offer continuous training to all the community in sustainable and profitable manufacturing and business practices while ensuring that all employees and other stakeholders are constantly trained to operate at ISO standards.

4.4. Integrity/Honesty

Treat everyone with respect, fairness and integrity at all times. Honesty, trustworthy and open communication are critical components for success. Do the right thing, even when no one is watching.

4.5. Professionalism/Performance

Be disciplined and take pride in constantly developing and initiating new innovations and practices of quality and professionalism. Always strive to do things right the first time and "be a good neighbor"

4.6. Innovation

Constantly developing and initiating new practices, policies and procedures to improve the efficiency of our operations.

4.7. Teamwork

Always value and respect the contributions of others. Recognize that each individual is essential to our success. Demonstrate understanding and cooperation in every action.

4.8. Fiscal Responsibility

Sensibly manage all available resources and debt and always plan for the future.

4.9. Safety

Dedicated to preserving the safety of all our employees, community groups and customers.

5. Sisal Industry Analysis

5.1. Sisal is a versatile material with a wide range of applications, from household items to industrial material, derived from the agave sisalana plant. Sisal fibers are three times stronger than cotton. They withstand harsh weather conditions, providing a longer lifespan for products made from them, which include:

5.1.1. The agricultural juice, fragments of leaves and particles of crushed parenchymatous tissue are used as fertilizer and animal feed.

They are also used as binders' twine, bale binding twine, and different agro-textile materials.

5.1.2. In the cordage industry, they are used for ropes, as well as baler and binder's twine.

5.1.3. In the paper industry, lower quality's sisal fiber is used to make paper in paper industry.

5.1.4. In the automobile Industry, sisal is used in car doors, panels, package holders, ceilings, wheel wells, consoles, skid plates to reduce fuel consumption

5.1.5. In the construction Industry, short sisal fiber used to make high-quality sofas, wadding mats and others pulp constructing materials.

5.1.6. In floor covering, higher quality's sisal fiber is used to make carpet, mattresses, rugs, and wall covering.

5.1.7. In geotextiles, sisal is used as a sandwiching natural component between layers of polyester. It is also used for packaging, tying and gardening materials.

5.1.8. Other uses for sisal include making dart boards, buffing cloth, handicrafts, filter manufacturing, and Agro-textiles industry.

The global ban on plastic products due to environmental concerns has increased the demand for natural fibers. Sisal is an eco-friendly alternative to plastic and nylon fibers because it decomposes easily and is friendly to the environment. Several industries, to avoid plastics have switched to sisal materials for the manufacturing, further driving demand for sisal production. In summary, sisal remains a valuable crop for Tanzania, balancing economic gains with environmental sustainability leading Tanzania to be the second largest producer of sisal worldwide producing 13% of all production.

5.2. Tanzania Sisal Board (TSB)

Tanzania Sisal Board was established by an Act of Parliament and is charged with the regulation and promotion of the sisal industry with the aim of making it sustainable through increased productivity and profitability.

In 1963 the sisal industry in Tanzania was the largest producer of sisal worldwide, producing over 240MT annually. In the 1960's, the entire industry was nationalized, and production fell to about 10 metric tons annually. In 2019, the Government of Tanzania reformed the Tanzania Sisal Board and consolidated all of its offices and assets into one central body. By 2020, Tanzania exported 28.6 metric tons of sisal and in the 2024 season, Tanzania is expected to export at least 60 metric tons of sisal internationally. Several initiatives are being implemented to reach exports to reach and exceed the previous 240 metric tons annually.

The leading sisal growing regions are Tanga, Morogoro, Kilimanjaro, Coast, Lindi and Mtwara with production driven by organizations, small scale farmers and cooperatives.

It is Mapepa Karatasi’s intent to establish production of quality pulp paper and handcraft products for local and international markets, in a direct PPP partnership with TSB.

5.3. Sisal Production

The sisal leaf contains about 4% by weight, of extractable hard fiber that is used for industrial purposes as listed earlier. The industry in Tanzania currently does not have a solution for the 96% discharge of liquid and solid sisal waste from the decortication process.

From the 96% sisal waste during the decortication process, 60% by weight of that discharge is extractable pulp and short fibres that can be used for pulp-paper production, the remainder being water and soluble sugars that can be used in biogas and distillation processes. It is Mapepa Karatasi’s intention to recover the discarded sisal waste and convert the waste and short fibres into pulp-paper for local and export purposes working directly with cooperative groups.

6. Tanzania Country Analysis

Key indicators

	2023 ^a	2024 ^b	2025 ^b	2026 ^b	2027 ^b	2028 ^b
Real GDP growth (%)	5.2	5.6	6.1	6.2	6.6	6.8
Consumer price inflation (av; %)	3.8 ^c	4.3	3.9	3.6	4.2	4.5
Government balance (% of GDP) ^d	-3.5	-3.3	-3.0	-3.0	-2.9	-2.5
Current-account balance (% of GDP)	-3.5	-3.9	-4.1	-4.1	-4.0	-3.8
Short-term interest rate (av; %)	7.3 ^c	7.6	6.1	5.6	5.0	4.8
Exchange rate TSh:US\$ (av)	2,383 ^c	2,596	2,699	2,719	2,749	2,774

^a EIU estimates. ^b EIU forecasts. ^c Actual. ^d Fiscal years ending in June.

Tanzania’s economy expanded by Tsh 18 trn/-, at current market prices to Tsh 188.6 trn and has shown resilience, growing by **5.2% in 2023** compared to **4.6% in 2022**. The country was reclassified as a Low Middle-Income Country five years ahead of schedule in 2020. Tanzania’s GDP is projected to grow **5.6% in 2024**, supported by an improving business environment and structural reforms.

Agriculture is the largest and most important sector, contributing **27** percent of GDP, 24 percent of total export earnings, and **65** percent of total employment. Key points include:

Inflation and Fiscal Policies: As of May 2024, Tanzania's annual inflation rate was 3.1%, which was the same as the previous month and close to a three-year low. This rate has been gradually decreasing since January 2023. The National Consumer Price Index (NCPI) measures the change in the cost of a fixed basket of goods and services purchased by a representative sample of households over time.

Exchange Rate and Reserves: The Tanzanian shilling faces headwinds as a sustained current account deficit exerts depreciatory pressure. Periodic foreign-exchange market interventions by the Bank of Tanzania (BoT, the central bank) will prevent even sharper depreciation, but will simultaneously impede growth in the foreign-reserves buffer.

Tanzania in the Region: Tanzania is an active member of the following African regional trade bodies **SADC, EAC, AfCFTA** and **COMESA**. In 2023, Tanzania's top export destinations were to Asian and SADC nations. Tanzania’s top 5 major export partners were:

- India (21% of Tanzania's exports, valued at \$1.55 billion),
- South Africa (15.4% of Tanzania's exports, valued at \$1.12 billion),
- United Arab Emirates (9.43% of Tanzania's exports, valued at \$686 million),

- Switzerland (6.4% of Tanzania's exports, valued at \$465 million) and
- China (5.88% of Tanzania's exports, valued at \$427 million)

Tanzania's population is 69,433,408 as of July 2024 with more than 50% of the population under 18 years and 70% being under 30%. This highlights the importance of youth engagement and informed decision-making to address the needs and aspirations of young Tanzanians.

7. The Mapepa Karatasi Model – Pulp Paper Making from Sisal

7.1. The Business Model

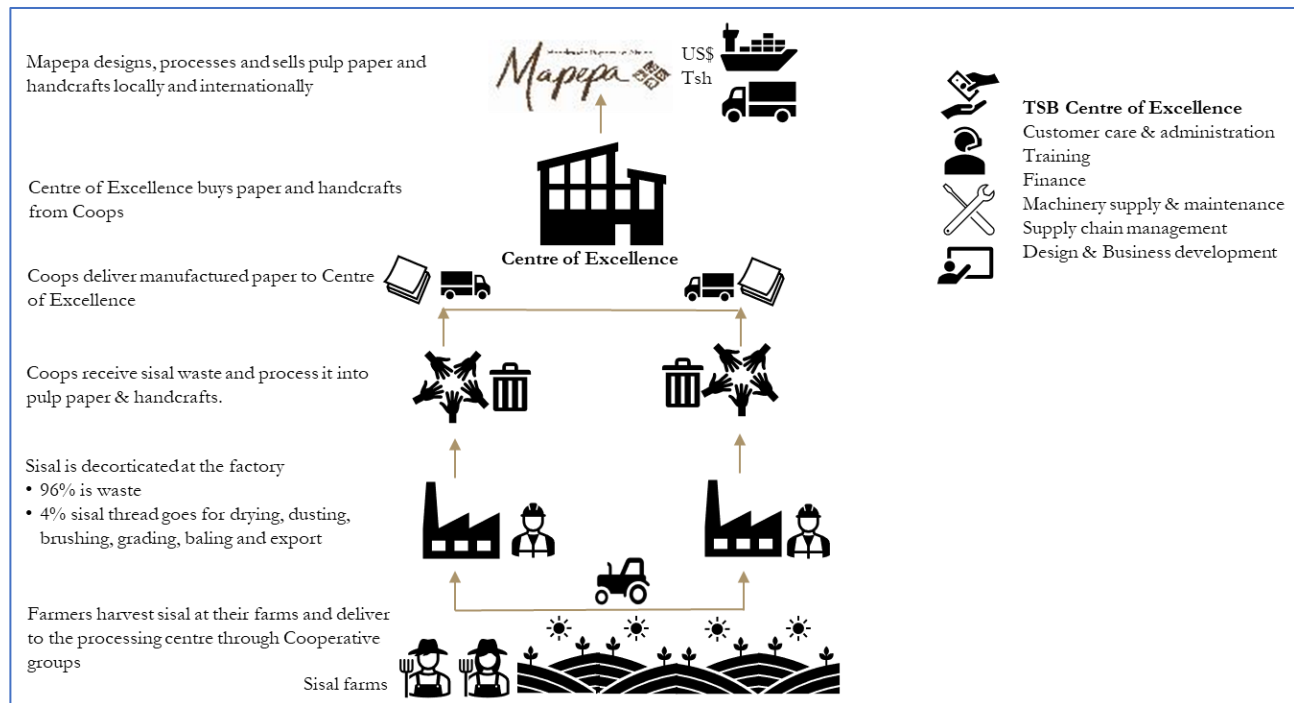
This business is intended to manufacture pulp-paper products for resale to local and international markets, working directly with cooperative groups that shall be trained to use traditional and modern manufacturing methods to manufacture the pulp-paper and handcrafts from sisal waste.

The rollout of the pulp-paper and handcraft manufacturing through cooperative groups shall be managed and coordinated by Mapepa Karatasi Ltd through the Centre of Excellence, using the “create Mapepa syllabus” in training on pulp and paper technology.

7.2. The production process is described below:

The process of pulp paper manufacturing shall include the following process:

- Mapepa Karatasi, through a partnership with farmers, factories and Tanzania Sisal Board, shall collect and maintain records of sisal waste that they harvest, that is currently disposed at the sisal factories.
- After the sisal waste has been weighed, costed and collected, it will be delivered to registered cooperative groups, for them to produce pulp-paper.
- The cooperative groups shall manufacture pulp-paper and handcraft products using the Mapepa training methods and recommended equipment. The training shall be administered by a team of expat experts using techniques that have been learnt over the last 35 years.
- The manufactured paper from Cooperatives, shall be delivered to the Centre of Excellence and tested against the Centre's quality control standards. Accepted pulp-paper and handcrafts shall be purchased and paid for, to the cooperative groups' accounts.
- Mapepa Karatasi shall re-manufacture the paper to marketable paper products or sell the raw paper to local and international markets.



7.3. Centre of Excellence

Central to the coordination of this business shall be the Centre of Excellence. Activities of the centre shall include:

- 7.3.1. Training. The Centre of Excellence shall offer all registered cooperative members training on pulp-paper manufacturing. All cooperative members shall be tracked on continuous training progress with the shortest course program being 3 months and artisan levels being up to 2 years of training. From the first day, the cooperatives and their members can however start to earn from their paper manufacturing. Mapepa Karatasi training through the Centre of Excellence, shall be accredited with the Ministry of Education and Vocational Training Centres, University of Dar Es Salaam, Standards Association partnerships (ISO) and courses shall include Diploma certificates for successful completion of the “Create Mapepa” course curriculum.
- 7.3.2. Customer Care and Administration. The Centre of Excellence shall operate an intricate IT software (App) to manage the administration, follow-through and customer care for all Cooperatives, their members, our Mapepa Karatasi affiliated partners and TSB, to ensure that all business and production support is offered in a timely fashion. A team of business developers shall be responsible for the registration and equipping of new cooperatives and the management and facilitation of existing cooperatives to ensure optimized productivity.
- 7.3.3. Finance. All asset management, accounts reporting and financial management, activities including reconciling and settling payables and receivables shall be managed at the Centre of Excellence.
- 7.3.4. Design and Innovation: The Centre shall research and innovate different end-products for packaging, arts and crafts, books and other materials.
- 7.3.5. Marketing and PR: The Centre shall manage and supporting the company’s image including the online social media presence through an active ecommerce presence. We shall interact with the numerous public institutions across Tanzania.

- 7.3.6. Machinery Supply and Maintenance. All parts, accessories and machinery supply and servicing for the Mapepa paper mills shall be sold and coordinated from the Centre of Excellence.
- 7.3.7. Supply Chain Management. The Centre of Excellence shall play a critical role in coordinating the collection, record keeping and distribution of sisal waste to cooperatives. This shall include the third-party fleet of vehicles and their drivers, the factories, the cooperatives and TSB.
- 7.3.8. Pulp-Paper: All manufactured stock of pulp-paper by Cooperatives shall be received by pre-agreed grade and price, then stored in the Centre of Excellence warehouse. The pulp paper must be stored and preserved by qualified artisans for re-sale as-is or re-designed and shipped to local and international customers.

7.4. Cooperatives.

Cooperative groups shall be the core of our production; empowering women's and/or youth production groups to produce pulp-paper sustainably and profitably for trade. Mapepa Karatasi in conjunction with TSB shall assign a mobile Mapepa hand-paper making mill to each registered cooperative for their production of paper from sisal waste. The cooperatives must have an established location for operating and a minimum number of active members registered who shall be available to participate in the pulp paper production.

7.5. Tanzania Sisal Board (TSB).

Mapepa Karatasi intends to establish a working Public-Private Partnership (PPP) with TSB that shall provide collaborative support services towards the cooperatives through the Centre of Excellence.

8. Advantages of the Mapepa Karatasi paper making model.

- 8.1. The Cooperatives will be taught how to make pulp-paper and other handcraft products using sisal agri-fibre and a mechanical process that is wholly African and requires mostly physical work with no electricity or fossil fuels necessary.
- 8.2. We are providing 35 years of market and customer experience in paper manufacturing.
- 8.3. An unlimited number of Cooperatives can be established across the region, partnering with TSB including local government offices, schools, clinics, environmental management agencies, Municipalities and Tourism operators.
- 8.4. The Cooperatives in each defined region shall be supervised by a senior hand paper maker who will train and delegate new potential local trainers (nationalizing Tanzanian train-the-trainers)
- 8.5. Each Cooperative shall be given specific quotas of production and paper quality requirements to meet for either local or export markets – teaching them profitable and sustainable business acumen.
- 8.6. More established Cooperative paper manufacturers will be introduced to bigger paper making machines to produce higher volumes at more competitive prices for the local markets. This production may supply local Government tenders, corporate partners, tourism partners, packaging sector and the construction sector.
- 8.7. Cooperative may also be able to attract their own client orders.
- 8.8. The Cooperatives will be taught to repair and maintain their tools and equipment
- 8.9. No dangerous chemicals shall be used in the production process
- 8.10. No trees shall be cut to produce paper. Mapepa produces “tree-free-paper”.
- 8.11. Production can be carried out as part-time or full-time production
- 8.12. The equipment shall be patented and of extremely high quality and design but we shall use local engineering firms to manufacture and supply the machinery.

9. Mapepa Products

9.1. Mapepa paper and handcraft products that shall be sold to local and international markets, shall include:

- Mapepa Hand Made Paper: recycled paper, cotton rag paper, indigenous fiber papers, plan papers, archival paper, acid free, ligin free.
- Framing and Services: block mounting, box framing, conservation framing, corporate and student framing, mirrors, mount cutting, photos, posters, repairs.
- Book Covers & Cards: Book binding, Journals, Photo albums, Pocket albums, Flyers, Brochures, Calendars, Business cards, Menus, Conferencing products.
- Box Collections: Corrugated Cartons, Wine Boxes,
- Carrier Bags: Handbag, Bottle Bags, Glossy Bags, Leopard Bags, Natural Brown Kraft, National Flag Bag, Spot Bags, Tapered Bags
- Packets & Plastic Bags: Solid Colour Kraft, Frosted, White & Gold carrier bags for retail.
- Tissues: - Tissue Rolls 50m, White Cap, Tissue Paper Sheets, Tissue Stand
- Gift & Other Items: Cellophane Rolls, Giftwrap Dispensers, Giftwraps, Items Printed to Client Specifications, Organization Bags, , Ribbon, Tape Dispensers

9.2. Target Market

The target markets for our papers and handcrafts produced by the cooperatives shall include the following (not in order of priority):

- International markets (contracts established with partners)
- Local and regional retail paper packaging (B2B)
- Local boxing, gifts, handcrafts, stationery and print companies (B2B)
- Local and regional Hotels, Restaurants and Canteens (HORECA) (B2B)
- Local and regional NGO's and Social Development Organizations including Government.
- Farming. Paper packaging and wrapping especially for the tobacco and cotton industry

9.3. The Competition

While there are a number of wood-pulp paper and packaging processing companies in Tanzania, we have not seen any operational non-wood-paper manufacturing companies across Tanzania. We therefore intend to maximize the first mover advantage in Tanzania by emphasizing non-wood pulp paper and its benefits.

Import Paper Competition	Wood-Pulp Paper Making Competition	Agri-fibre Pulp Making Competition
<ul style="list-style-type: none"> • Twiga Papers Ltd, Dar • Tanpack Tissues Ltd, Dar (\$2.05m annually) • Hanspaul Industries Ltd, Arusha (\$10.38m annually) • Statpack TZ Ltd, Dar (\$9.9m annually) • Creative Packaging Ltd, Dar (\$7.14m annually) 	<ul style="list-style-type: none"> • Mufundi Paper Mills Ltd, Iringa (\$7.14m annually) 	None

<ul style="list-style-type: none"> • East African polybag Industries Ltd, Dar (\$5.32m annually) • Maxons Paper Converters Ltd, Dar (\$5.3m annually) • Modern Flexible Packaging Ltd, Dar (\$2.81m annually) • Green Resources, Dar (\$2.05m annually) • Tanzania Printing Services Ltd, Dar (\$0,.93m annually) 		
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9.4. Value-Chain Earning Strategy

We intend to generate income for all the stakeholders involved in the production value-chain from this waste, with the involvement and decision-making from Mapepa Karatasi, TSB, the cooperative groups, and the factories.

We intend farmers to earn from the waste that Mapepa Karatasi buys from the factories.

We intend cooperative to earn from the paper they sell to Mapepa Karatasi.

We intend boda-boda and vehicle delivery service providers to earn income from transporting pulp-paper and/or sisal-waste product throughout the value-chain.

10. Mapepa Karatasi Pulp Making Equipment

Mapepa Karatasi shall sell three different sizes of patented pulp-paper making mills to the Tanzania market along with their supporting parts and accessories to accelerate the production. After adequate training, Cooperatives with the smallest pulp-paper manufacturing machines shall be able to produce a minimum of 100 quality sheets of A1 pulp-paper daily and individually earn up to \$2 per day from their production. Ultimately, Mapepa Karatasi intends to find and establish a partnership with a Tanzanian local engineering company to manufacture the patented pulp-paper making mills within the country. This production should drastically reduce manufacturing costs, increase the pace of innovation and potentially manufacture for export locally and regionally across East Africa.

10.1. Mapepa Karatasi Paper Making Equipment

- The Marina Bush Mill is a unique hand operated pulping machine designed to work without the consumption of fossil fuels or electrical energy. Completely efficient and easy to transport this machine uses sisal fiber and water to produce pulp and paper products. It requires a minimum team of 6 people per shift (and a maximum of 15 people) could produce an average of 100 (80-220gsm) sheets per day using waste sisal fiber and water only. The unit also includes two sets of A2 & A4 molds, couching table, pressing boards, calendaring plates, double fly press, felts, drying kits.



- The Makulu and Karatasi Mill can fulfill large pulp beating requirements with the option of manual operated or electric operated operations. These machines are ruggedly built to beat pulp over decades of daily use. Operational in South Africa, Botswana and Zimbabwe by medium scale paper mills. For the serious milling, these beaters offer exceptional performance. It requires a minimum team of 15 people per

shift (a maximum of 30 people) and could produce an average of 500 (80-220gsm) sheets per day using waste sisal fiber and water only.



To complement the Makulu and Karatas mills, we shall also supply:

- **Mapepa Paper Drying Box:** Accommodate paper up to 30"x 40" in size and will dry up to 75 sheets. With this system, one loads the box with damp paper and turns on the fan and it will be dry in 24 hours. Features dual fans and a powerful spring to help maintain pressure on the drying papers.
- **Blotters and Cardboard:** We shall provide the double-wall board and rag blotters needed for the drying system. 40 sheets of acid-free, buffered, archival, corrugated double-wall board
- **Mapepa 50 Ton Hydraulic Press:** This large heavy-duty press is for serious papermaking studios in two sizes 34" x 26" platen and 36" x 40" platen. The electric hydraulic pump eliminates tedious hand pumping - just hold the switch and watch the gauge for repeatable pressings.

11. Regulatory and Compliance Permits and Licenses

To set up and operate this pulp-paper making project in Tanzania requires the following permits, certification and licenses from the regulatory authorities.

- National Environment Certificate from National Environment Management Council (NEMC).
- Fair Trade
- OSHA.
- TCDC
- Tanzania Bureau of Standard (TBS).
- Industrial licenses.
- Tanzania Investment Centre Certificates of Incentives.
- Business licenses, and
- Local Government Authority
- Immigration Work Permits for some foreigners.

All certifications and registrations shall be secured before production starts. We intend to be ISO 9001 certified within 2 years of launch and strive for more ISO standards in future.

12. Mapepa Karatasi Shared Technology

To ensure the long-term viability of all the Mapepa Karatasi enterprises, mobile and administrative reporting and tracking technology shall be at the forefront of operational execution. Below are some of the technologies that shall be sought and shared within all the business enterprises:

- Sales – Cooperative and Manufacturer Tracking: We shall track and report in real-time the supply of raw Sisal deliveries to cooperatives from suppliers and the number of Mapepa products manufactured daily. The system should also track supply service delivery to improve OTIF supply.
- Administration: Mapepa Karatasi intends to be a fully automated operation with all trading, expenses and asset transactions reported through SAGE real-time. Analysis and reporting shall be presented through dynamic reports.
- HR Services: All Mapepa Karatasi personnel shall be managed through an automated HR system for payroll settlement, time-management/clocking, leave management and administration.
- Payment Services: Mapepa Karatasi shall be cashless and shall use all transfers facilities including mobile-money, bank transfers and Wakala services for transactions.
- Communication: We shall speak to all members of the team through tools including Whatsapp groups, Mobile reporting system and company email and google apps.

13. Supply Chain Plan

Mapepa Karatasi intends to partner and lease vehicle deliveries from local distribution partners including trucks, vans, piki-piki’s and boda-boda’s to coordinate the supply chain.

- Raw sisal delivery distribution: Mapepa Karatasi, in partnership with TSB and the transporters, shall set agreed rates for delivery of fresh raw sisal from the factories to the cooperatives. The Cooperatives shall pay the transporter according to the agreed payment terms and price, for all sisal waste delivered.
- Finished paper delivery: Mapepa Karatasi, in partnership with TSB and the transporters, shall set agreed payment terms and rates for the collection and delivery of finished paper production from the cooperatives to the Mapepa Karatasi warehouse.

To ensure end to end supply chain efficiency in the coordination of collections and deliveries, Mapepa Karatasi shall consider launching an Android mobile app that all transporters shall be required to login, accept contract jobs and facilitate payments from.

14. The Team

14.1. Board of Directors

Key management team members have already been identified who shall be the company owners as indicated in the table below. A Board of Directors shall also be incorporated for Governance purposes.

<p><u>Mr Farayi Ziswa (Zimbabwean)</u> Co-Founder, 20% Shareholder & Executive Director Experience: 25 years executive management in multinationals and as an entrepreneur in the FMCG manufacturing and retail industries across Middle East and Eastern, Southern Africa.</p> <p><u>Mapepa Karatasi Ltd Roles & Responsibilities</u> Title: Board Chairman and Executive Director</p>	<p><u>Mrs Janet Mwalilino (Zimbabwean)</u> Co-Founder, 15% Shareholder & Non-Executive Director Experience: 21 years of executive management experience in the international luxury goods and FMCG industries.</p> <p><u>Mapepa Karatasi Ltd Roles & Responsibilities</u> Title: Non-Executive Marketing Director 1. Franchise partnership management</p>
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<ol style="list-style-type: none"> 1. Business modelling and strategic planning 2. Automation, IT systems & reporting 3. Finance management (budget & spend) & corporate governance 4. NGO and international fundraising 5. Strategic partner development 6. Mapepa international market development 7. Legal and secretarial oversight 	<ol style="list-style-type: none"> 2. Mapepa Karatasi brand strategy development 3. Mapepa social media and ecommerce setup 4. Centre of Excellence brand development 5. PR and CSR strategy development
<p>Mr Walter Ruprecht (Zimbabwean/Austrian/Italian) Technical Consultant & Executive Director Experience: Founder Mapepa Ltd 1989, 33 years as a technical engineer and social entrepreneur in African pulp papermaking across Southern, East African and international markets.</p> <p><u>Mapepa Karatasi Ltd Roles & Responsibilities</u> Title: Non-Executive Technical Director</p> <ol style="list-style-type: none"> 1. Technical pulp paper making consultancy 2. Supply of pulp making machinery & mechanical supply and consultancy. 3. Formulation of pulp paper training curriculum and guidance on training of cooperatives. 4. Design and sale of local manufacturing machinery. 5. Introduction to international sales markets 	<p>Ismail Qadue (Tanzanian) 30% Shareholder & Non-Executive Operations Director Experience: 17 years of executive management experience in multinational FMCG retailing and manufacturing industries across East, West and Southern Africa</p> <p><u>Mapepa Karatasi Ltd Roles & Responsibilities</u> Title: Non-Executive Operations Director</p> <ol style="list-style-type: none"> 1. Operations management including: 2. National recruitment and management of pulp paper cooperatives strategy and implementation. 3. National recruitment and management of employees 4. TSB PPP partnership and coordination 5. Local Gvt and Bank fund raising 6. Government liaison & PR coordination

- Finance and statutory management shall be assigned to a third-party supplier with monthly review and reporting for a period of 1 year (renewable) and then internal personnel shall be recruited.
- Audit shall be assigned to a third-party supplier with a yearly review and reporting for a period of 2 years (renewable).
- Company Secretary shall be assigned to a third-party law firm (RAW) with quarterly review for a period of 1 year (renewable).
- HR administration shall be assigned to a third-party agent with monthly review and reporting for a period of 1 year (renewable).
- IT control apps shall be assigned to a third-party supplier with monthly review and reporting for a period of 1 year (renewable).
- The founding Directors have a combined 96 years of international working experience that shall be invaluable in the rollout of Mapepa Karatasi products onto the market.
- The profile for Farayi Ziswa is attached

14.2. Governance Structure

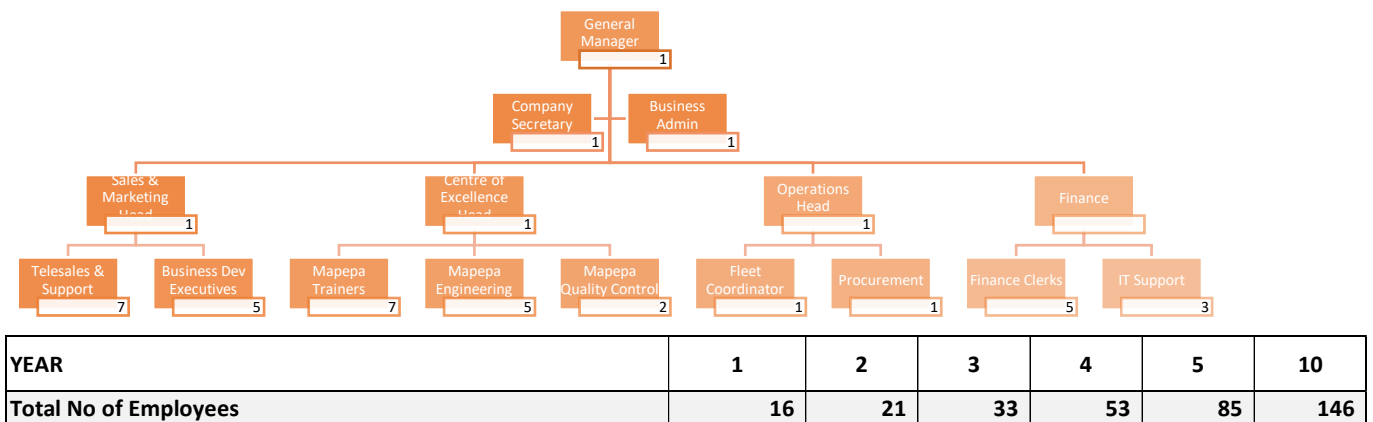
A General Manager shall be recruited locally to operate from the Centre of Excellence to manage operations and share routine weekly and monthly performance results with the board. The Board shall meet fortnightly in the first 6 months of establishment and thereafter once quarterly to review performance. The Board shall be constituted and governed by rules set out in the Articles of Association.

The following policy documents, governed within the laws of Tanzania, shall be used to drive the business operations, administration and the companies' values:

- HR Policy
- Finance Policy
- Manufacturing Policy
- Marketing and Brand Policy

14.3. Operational Team

Below is the proposed full structure of the management team for Mapepa Karatasi employing 50 personnel by year 5 within Mapepa Karatasi. This structure shall be kept lean and will be modified in alignment with the business performance, as defined by the Board.



Salaries and wages are expected to contribute 11% of net sales annually by year 5 (i.e. \$462,000 total salaries and wages to 85 staff annually).

- Mapepa Karatasi shall sign two yearly contracts of employment for full time staff, that have a component of fixed salary plus incentive compensation, driven towards the organization's sales goals.
- We recommend that all personnel be graded by a standardized hierarchy and responsibility to ensure equitable and transparent management of all staff without bias or prejudice to any gender, skill or role. The lowest level staff shall be Grade 1 and higher up to maximum Grade 5.
- All employment roles shall have a preset job description, minimum qualifications for the role, pay-scale and grade.
- No overtime shall be paid to any department. All departments shall require the employee to manage their time by taking leave at alternative times, with the approval of their supervisor.

15. Financial Projection

This investment is being launched in 5 phases until 2029.



15.1. Objectives and goals for this business model:

- To convert sisal waste into pulp-paper for resale to local and international markets.

- To establish 272 cooperatives by year 5
- To generate \$2.8m in annual revenue by 2029, from sale of pulp-paper manufactured by cooperative groups.
- To raise \$380,000 in investment capital by 2027 to support the investment requirements.
- To create employment for over 3,560 individuals through cooperatives, by year 5 earning an average \$2 per day. To create additional employment opportunities for +1,000 from industries associated to the project including supply chain.
- To be cash and profit positive by year 3 and contribute positively to the Tanzanian economy by paying Taxes and creating employment.

15.2. SWOT Analysis

Category	Details
STRENGTHS (To build on)	<ul style="list-style-type: none"> • A strong founding executive team with years of experience in sustainable pulp paper manufacturing, cooperative development, financial management, project management, sales, marketing and production. • Creating a new income stream from the current sisal waste that is being disposed. • Efficient and quality patented pulp milling machinery is to be supplied cooperatives for production of pulp paper with over 30 years of innovation. • Creating several new job opportunities for cooperative members and industries affiliated to the project. • Experience working with cooperatives. • Experience with handheld mobile technology for controls and operational modeling.
WEAKNESSES (To eliminate)	<ul style="list-style-type: none"> • Expensive supply chain costs with poor return on investment including vehicle leasing and third-party distribution agreements • Language barrier as trainers and investors shall need to learn to speak Swahili fluently. • New company and brand in Tanzania that shall need to go through a learning curve with new employees. • Funding limitations for establishing cooperatives, installing new devises and pre-financing Mapepa purchases.
OPPORTUNITIES (to pursue)	<ul style="list-style-type: none"> • Sisal is considered a strategic product by Tanzania government and therefore heavily focused. • The Tanzania economy GDP to grow at 6.1% in 2025 hence making a promising economic environment to venture in. • In Tanzania and East Africa, the population growth demographics, urbanization, increase in disposable incomes and size of the sisal industry offer a large growth opportunity. • Potential for paper production from other agri-fibre waste and garbage waste which will have environmental benefits to the nation.

THREATS (To eliminate)	<ul style="list-style-type: none"> Plagiarism of the patented pulp making machinery and the training processes by competition leading to loss of business by Mapepa Karatasi. Forex exposures with a weakening exchange rate nationally The financial risk of early payments to cooperatives for paper and our selling it later to local and international markets.
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15.3. Cooperatives registered

Our Business Development Executives are assigned the task of recruiting thirty (30) cooperative groups every year across the sisal production regions. By year 5 we intend to have 272 trained and operational cooperatives making Mapepa products.

	2025	2026	2027	2028	2029	2034
Mapepa Karatasi	Yr1	Yr2	Yr3	Yr4	Yr5	Yr10
Registered Cooperatives	12	46	91	161	272	494
Estimated No Employed in Coops	120	610	1,210	2,140	3,560	6,400

From the cooperatives that we intend to have established by year 5, we expect to have created 3,560 individual employment opportunities across the Tanzania sisal region with each cooperative member earning at least \$2 to 5 daily from their production of pulp Mapepa products.

15.4. Mapepa Training

Mapepa shall assign a trainer to every 20 operating cooperatives with the task of embedding themselves with the cooperatives, training them on pulp paper manufacturing and occasionally doing hands on production with the cooperative members. They shall schedule corporate training events and, in conjunction with the relevant authorities, develop a curriculum that they can offer certification for successful cooperative members and cooperative groups. The first trainers shall be expatriate, but we intend to have trained at least 5 of the target 8 trainers to be Tanzanian artisans by year 4.

15.5. Mapepa Sales

	2025	2026	2027	2028	2029	2034
Mapepa Karatasi	Yr1	Yr2	Yr3	Yr4	Yr5	Yr10
Total Mapepa Purchases	81,648	862,652	1,374,392	2,326,990	3,730,334	6,886,972
Mapepa Karatasi Pulping Machinery Purchases (\$)	54,000	393,500	443,000	676,750	1,003,550	2,007,100
No of A1 Paper purchased from Coops (tons)	4,608	78,192	155,232	275,040	454,464	813,312

Mapepa expects to earn incremental sales growth from the sale of Mapepa pulp paper products to the local and international markets, as well as from the sale of the patented pulp paper making mills that will initially be manufactured from Mapepa Headquarters in Zimbabwe but shall later be manufactured through local partners in Tanzania, exclusively to the registered cooperatives.

While we expect to start the first year by selling only 4 metric tons of pulp paper, we anticipate selling 279 metric tons by year 5.

15.6. Mapepa Profitability

US\$	2025	2026	2027	2028	2029	2034
Income Statement	Yr1	Yr2	Yr3	Yr4	Yr5	Yr10
Sales Revenue	114,307	1,207,713	1,924,149	3,257,786	5,222,468	9,641,761
Contribution to Operating Expenses	32,659	345,061	549,757	930,796	1,492,134	2,754,789
EBIT	(78,273)	58,349	137,570	344,836	648,910	1,319,918
EBIT %	-68%	5%	7%	11%	12%	14%
Tax	-	24,154	38,483	65,156	104,449	192,835
PAT%	-68%	3%	5%	9%	10%	12%

Mapepa Karatasi expects to generate a healthy profit after tax of 10% by year 5 from two revenue streams i.e., pulp paper sales to local and international markets as well as the sale of the Paper Pulp Manufacturing equipment.

We expect Mapepa to contribute \$105,000 in Corporate Taxes by year 5 from trading activities aside from other taxes like VAT and PAYE that shall be within operational scope.

15.7. Investment Capital

Mapepa Karatasi needs a capital injection of \$380,000 (TZS969million) over 3 years to establish Mapepa Karatasi as a viable going concern for the long term. This capital shall be raised through the investors, through trading, as well as through investment financing raised through bank financing.

The funding shall be for the repairs and restoration of the Centre of Excellence building, purchasing the pulp-manufacturing equipment for the cooperative groups and funding the cash account for 6 months of early payments to cooperatives and service providers for the purchase of pulp paper they will have produced.

- 47% of the investment capital is scheduled for fixed asset equipment and Centre of Excellence repairs.
- 29% of the investment capital is scheduled towards the advance payment of cooperatives.
- 19% of the investment capital is scheduled for salaries and wages of key operational staff.
- 5% of the investment capital is reserved to settle travel costs for investment partners.

US\$	2025	2026	2027	2028	2029	2034
Income Statement	Yr1	Yr2	Yr3	Yr4	Yr5	Yr10
Investment Capital	140,000	190,000	50,000			

15.8. Cashflow

Against an investment of US\$380,000 and operational expenses as presented earlier, below is the expected cashflow statement summary for Mapepa Karatasi from month 1 of production operations. We expect to be cash positive by year 4 of operation.

We expect to have a net positive cash position of \$274,000 by year 5 that shall be reinvested in the organization as assigned by the shareholders.

US\$	2025	2026	2027	2028	2029	2034
Income Statement	Yr1	Yr2	Yr3	Yr4	Yr5	Yr10
Cashflow		5,430	18,063	40,955	76,816	2,194,109
Cost of sales	(81,648)	(862,652)	(1,374,392)	(2,326,990)	(3,730,334)	(6,886,972)
Operating Expenses (less depreciation)	(110,075)	(277,654)	(397,755)	(561,526)	(804,055)	(1,362,558)
Add Sales Revenue (recovered same year)	57,154	905,785	1,443,112	2,443,340	3,916,851	7,231,321
Add Sales Revenue (recovered next year)		57,154	301,928	481,037	814,447	954,374
Net Cashflow	5,430	18,063	40,955	76,816	273,724	2,130,274

Mapepa Karatasi Net Present Value (NPV) is valued at US\$1.5m (exclusive of goodwill and intellectual expertise).

16. Advantages of using Sisal Pulp Paper

- 16.1. Sustainability: Pulp Paper Sisal fiber is readily available and currently disposed as waste across Tanzania. It is 100% biodegradable and a renewable resource that absorbs more carbon dioxide than it produces. This is in comparison to wood Paper which is made from trees that may not be so sustainable in Africa.
- 16.2. Versatility: Pulp paper is used in various applications, including printing, packaging, tissue, specialty papers, mats, ropes/yarn roofing etc. due to its diverse properties.
- 16.3. Quality and Performance Characteristics: Pulp Paper Sisal pulp has shorter fibers and a different chemical composition. It has strength, durability and a wide variety of pulp paper that it produces from a smooth printing surface to rough artistic crafts to ropes and strings for weaving.
- 16.4. Cost Effectiveness: Because the source fiber “sisal” is already being thrown away as waste, this paper source is extremely cost effective and only for the sustainability of all parties including the factories, we shall ensure a payment for sourcing the pulp.

17. Risk Analysis and Mitigation

- 17.1. Business Risk
 - The company does not have adequate cash flow to meet its operating expenses. The project is to be funded through a formal partnership with TSB.
 - Interactions with cooperatives groups and business factories shall expose the business to litigation and/or contractual disputes. This risk needs to be mitigated by taking Executive insurance but also ensuring that compliance is given maximized attention.
 - The company, through franchising with Mapepa Ltd, has put a strategy to kick start the pulp paper sales from established markets however, a dedicated sales team shall also be employed to identify new markets for Mapepa in the local and international markets.
- 17.2. Technology Risk
 - There is a risk of the pulp manufacturing technology and the paper manufacturing processes being replicated by competition and stealing our business.
 - The company shall endeavor to patent and copyright the Mapepa pulp manufacturing technology and the pulp paper production process training programs in Tanzania and East Africa.
 - After 35 years of the program being trained across Southern Africa, the process and machinery has not been replicated and we do have optimism that this will remain the case in East Africa.
 - We shall retain the support from the Franchise owner throughout the lifetime of the business operation.
- 17.3. Market Risk
 - Market Risk would occur, if we identify a market for Mapepa products but the cooperatives do not successfully manufacture the right quality and quantity to meet the orders.
 - The best mitigation strategy of Market Risk for the Project will come from assigning cooperatives specific quotas for production and invest in assigning dedicated trainers to ensure that they can meet the quotas. We shall also be selective about the cooperative groups that we assign and offer them incentives to ensure that they have focus to productivity.
- 17.4. Environment Issues

The company shall seek to partner with environmental agencies tourism boards, cooperative bodies and agricultural ministries to ensure that regulatory aspects of the project are measured and achieved.

18. Social and Economic Impacts

The project will promote social-economic goals and objectives stated in the Tanzania strategic plan for industrialization with the following benefits:

- Creation of direct employment for over 85 (eighty five) people by year 5.
- Payment of income to employees and other service providers (including support partners), thus contributing to the government efforts to enhance the citizens wealth creation and ultimately improving their livelihood.
- Add revenue base to both the promoters and the Government of Tanzania.
- The project has a multiplier effect on the people where the project will be located.

19. Key Action Plans

Attachment 1 has the schedule of timelines for the implementation of key actions related to the project rollout and activities.

20. Conclusion and Recommendation

The project promoters and Directors are confident that the project will operate successfully and ensure a positive return on the investors capital and assets augmented by the following reasons.

- The company intends to recruit a competent management team to run the project effectively and efficiently. The current leadership have a wealth of experience in the pulp paper making industry and in management of sustainable projects internationally.
- The company is investing in a resource that is currently 96% waste and intends to reduce that waste to at least 60%. Saving over 30% of waste, converted to new income.
- The company intends to partner directly with Tanzania Sisal Board and by extension the Ministry of Agriculture and the Tanzania Government in creating employment within cooperative groups and supporting industries, reducing post-harvest waste in the sisal industry and generating foreign currency from paper sales internationally while reducing the countries importation of certain paper products.
- The project will be implemented under turnkey contract of 5 years and hence implementation, completion and operation risks will be mitigated.
- The project is technically, financially and commercially feasible and henceforth recommended for implementation.

Attachment 1

Mapepa Tanzania Ltd																					
Sisal Pulp and Paper Production Gant Chart																					
as at 1st May 2024																					
Activity	Responsible	Due Date	Status	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug	26-Aug	
1	Visit TSB in Tanga	Farayi	8th-11th May																		
2	Complete feasibility study		8th-15th May																		
3	Prepare business proposal and budget for Mapepa internal company	Farayi	8th-20 th May																		
4	Prepare legal partnership with Mapepa Walter to setup Mapepa East Africa		20th-25th May																		
5	Prepare business proposal and budget for TSB	Farayi	26th-8th June																		
6	Signoff agreement TSB & Mapepa Tanzania	Farayi	15th June																		
7	Prepare a financing budget for Mapepa Tanzania Ltd to TSB	Farayi	8th May-1 st Jun																		
8	Prepare financing proposal for Coop mechanisation (to banks)	Farayi	30 th June																		
9	Identify 2 Coops for the pilot to operate in Tanga town.		18th Jun - 7th Jul																		
10	Identify operational warehouse for pilot coops in Tanga town.	TSB	2nd Jul - 14th Jul																		
11	Identify Coops for pilot from the 5 Estates (Hale, Mwelya, Ngobezi, Magoma, Magunga)		9th Jul - 4th Aug																		
12	Identify operational warehouse for other Coops to operate.		30th Jul - 18th Aug																		
13	Set target number for training of women and youth coop groups																				
14	Set target for reduction of sisal waste - Target from 96% waste to XX% waste disposal	TSB																			
15	Prepare legal partnership with TSB to setup pulping and paper production with Coop groups across the TSB operating regions																				
16	Identify lawyer	Lawyer	1 st June																		
17	Register Mapepa Tanzania Ltd as a company in TZ		15 th June																		
18	Registration with TIC		30 th June																		
19	Work permit Farayi (investor)		10 th July																		
20	Temp work permit Walter (6 month)		10 th July																		
21	Temp work permit expert trainers (6 month)		10 th July																		
22	Agree and announce grades of raw pulp and prices with TSB. Payable to Production centres from Coops.	Mapepa																			
23	Agree and announce grades of paper from Coops to Mapepa and prices. Payable to Coops from Mapepa.	TSB	15 th July																		
24	Book dates and itinerary for Walter's training	Farayi	16-20 th July																		
25	Book plane tickets, accommodation and transport for Walter and trainers																				
26	Walter in Tanzania																				
27	Introductions to Min. of Agriculture, Labour, Coops, TSB																				
28	Mapepa Launch and Training in Tanga																				